



Full wwPDB EM Validation Report ⓘ

Jul 15, 2025 – 11:40 AM JST

PDB ID : 8YGP / pdb_00008ygp
EMDB ID : EMD-39259
Title : The tetramer Structure of DSR2-SPR with NAD
Authors : Gao, X.; Zhu, H.; Cui, S.
Deposited on : 2024-02-26
Resolution : 4.40 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : **FAILED**
MolProbity : 4-5-2 with Phenix2.0rc1
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : **FAILED**
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.44

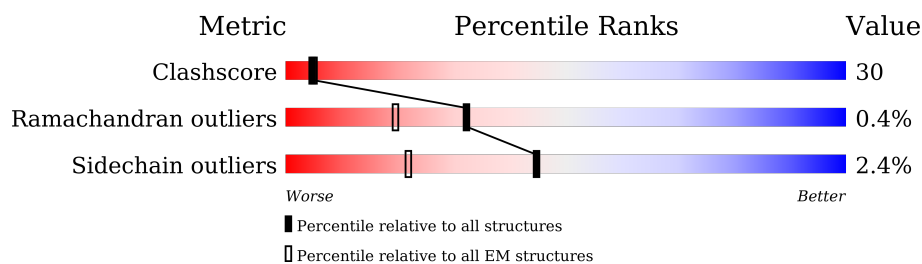
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.40 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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

Mol	Chain	Length	Quality of chain
1	A	1005	51% 43% ...
1	B	1005	54% 41% ...
1	E	1005	47% 49% ..
1	F	1005	45% 48%
2	C	264	36% 19% . 43%
2	D	264	31% 26% 43%
2	G	264	29% 25% . 43%
2	H	264	28% 26% . 43%

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 37524 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called SIR2-like domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	983	Total	C	N	O	S	0	0
			8183	5292	1322	1538	31		
1	B	983	Total	C	N	O	S	0	0
			8183	5292	1322	1538	31		
1	E	983	Total	C	N	O	S	0	0
			8183	5292	1322	1538	31		
1	F	983	Total	C	N	O	S	0	0
			8183	5292	1322	1538	31		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	171	ALA	HIS	engineered mutation	UNP D4G637
B	171	ALA	HIS	engineered mutation	UNP D4G637
E	171	ALA	HIS	engineered mutation	UNP D4G637
F	171	ALA	HIS	engineered mutation	UNP D4G637

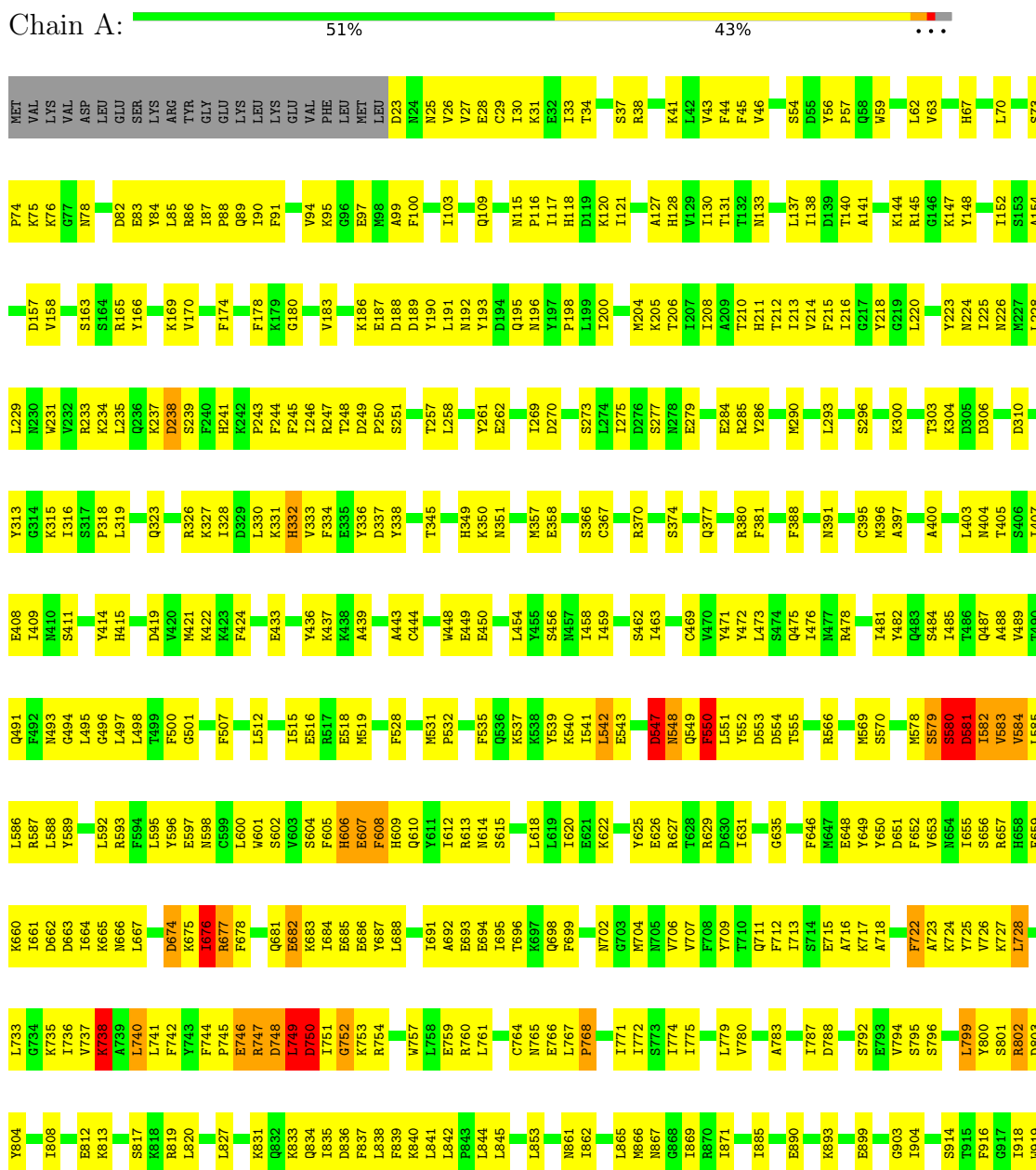
- Molecule 2 is a protein called SPR.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	C	151	Total	C	N	O	S	0	0
			1198	758	189	247	4		
2	D	151	Total	C	N	O	S	0	0
			1198	758	189	247	4		
2	G	151	Total	C	N	O	S	0	0
			1198	758	189	247	4		
2	H	151	Total	C	N	O	S	0	0
			1198	758	189	247	4		

3 Residue-property plots

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

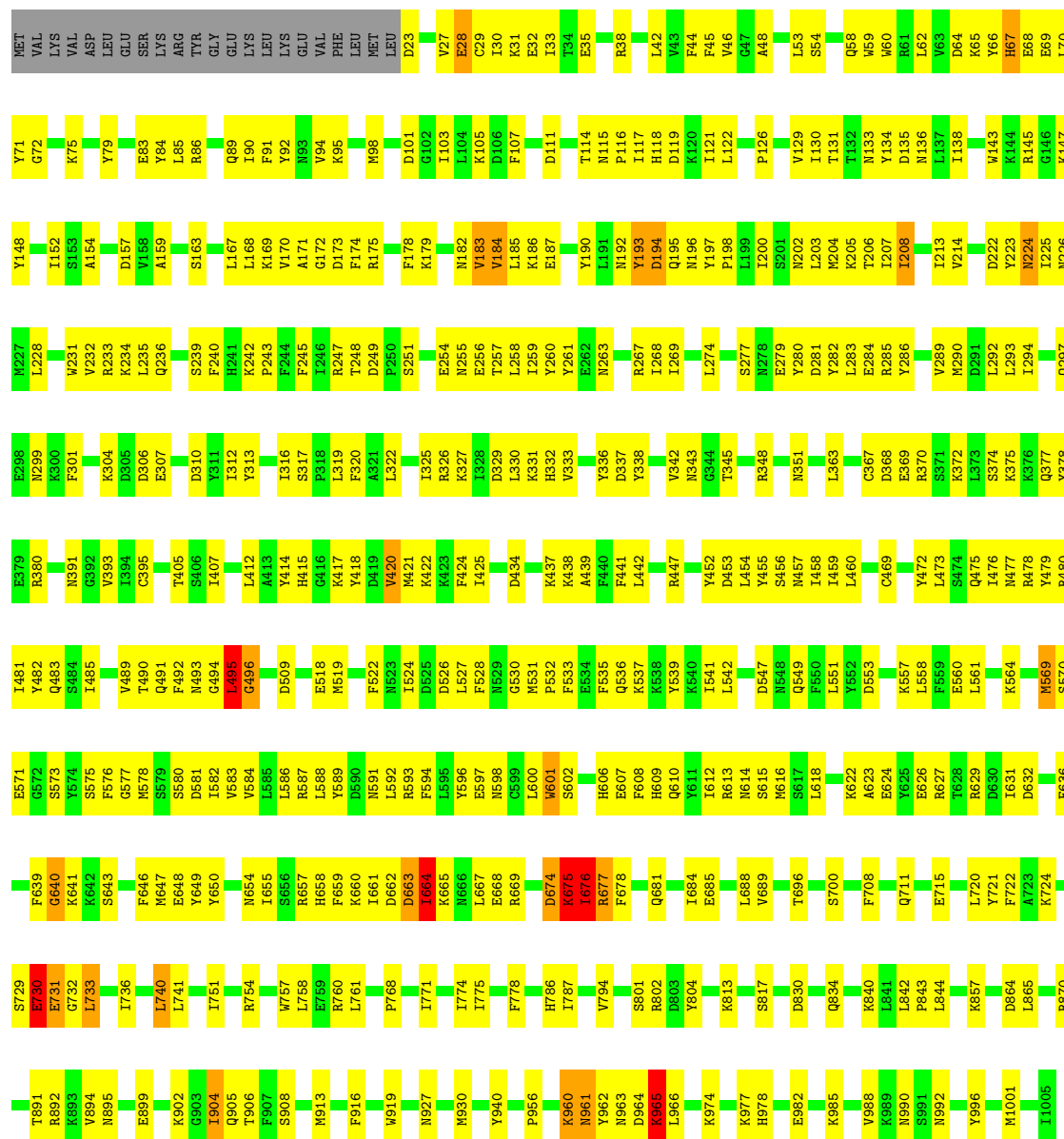
• Molecule 1: SIR2-like domain-containing protein





• Molecule 1: SIR2-like domain-containing protein

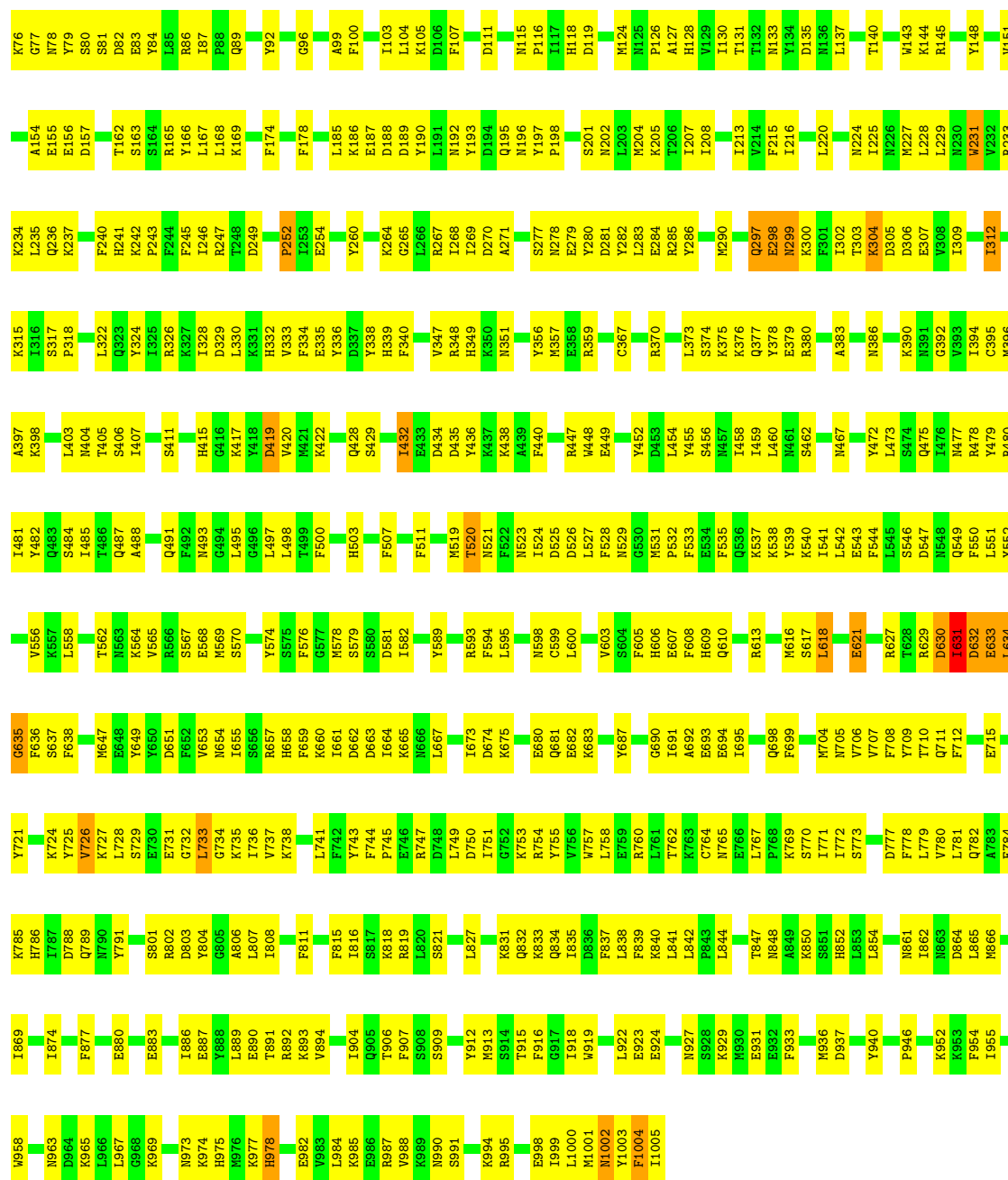
Chain B: 54% 41%



• Molecule 1: SIR2-like domain-containing protein

Chain E: 47% 49%





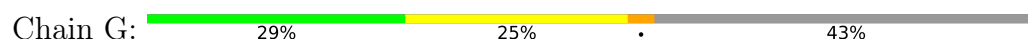
• Molecule 1: SIR2-like domain-containing protein

Chain F: 45% 48%

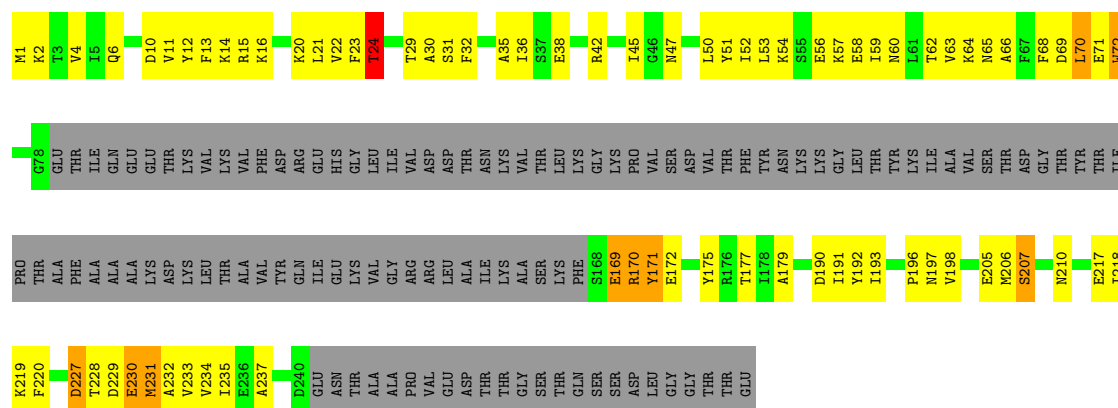
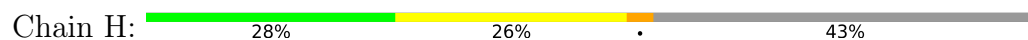




- Molecule 2: SPR



- Molecule 2: SPR



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	49893	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	66	Depositor
Minimum defocus (nm)	1800	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.37	9/8374 (0.1%)	0.78	33/11280 (0.3%)
1	B	0.24	0/8374	0.80	34/11280 (0.3%)
1	E	0.27	1/8374 (0.0%)	0.67	13/11280 (0.1%)
1	F	0.37	3/8374 (0.0%)	0.88	42/11280 (0.4%)
2	C	0.29	0/1218	0.80	4/1645 (0.2%)
2	D	0.15	0/1218	0.45	0/1645
2	G	0.45	0/1218	0.75	5/1645 (0.3%)
2	H	0.38	0/1218	1.23	11/1645 (0.7%)
All	All	0.32	13/38368 (0.0%)	0.80	142/51700 (0.3%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	E	0	1
2	H	0	1
All	All	0	3

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	580	SER	C-O	-11.02	1.10	1.23
1	A	582	ILE	N-CA	-7.17	1.38	1.46
1	A	584	VAL	N-CA	-6.32	1.39	1.46
1	A	607	GLU	CA-C	-6.31	1.45	1.52
1	F	961	ASN	CA-C	-6.25	1.44	1.52
1	A	550	PHE	CA-C	-6.07	1.45	1.52
1	A	583	VAL	CA-C	-6.04	1.45	1.52
1	A	608	PHE	CA-C	-5.64	1.45	1.52
1	F	864	ASP	CA-C	-5.61	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	631	ILE	N-CA	5.54	1.52	1.46
1	A	582	ILE	C-O	-5.21	1.18	1.24
1	A	583	VAL	N-CA	-5.11	1.41	1.46
1	F	711	GLN	N-CA	-5.02	1.39	1.46

All (142) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	601	TRP	N-CA-C	30.70	149.99	112.54
1	E	630	ASP	N-CA-C	-28.52	72.89	110.53
1	B	182	ASN	N-CA-C	23.94	137.06	110.97
1	F	392	GLY	N-CA-C	23.47	144.41	115.31
2	H	230	GLU	N-CA-C	23.36	142.73	111.90
1	B	676	ILE	N-CA-C	-21.30	82.54	108.53
1	B	676	ILE	CB-CA-C	20.94	141.48	110.91
2	H	230	GLU	CB-CA-C	-20.53	79.43	111.66
1	B	194	ASP	N-CA-C	-18.69	93.31	114.62
2	H	24	THR	CB-CA-C	-18.46	74.12	109.37
1	A	579	SER	N-CA-C	-18.20	87.86	110.61
1	F	802	ARG	N-CA-C	-17.92	91.20	114.31
2	C	171	TYR	N-CA-C	-17.79	83.62	110.30
1	A	738	LYS	N-CA-CB	-17.70	86.14	110.56
1	A	737	VAL	N-CA-C	17.64	146.04	109.34
1	F	964	ASP	N-CA-C	16.97	146.95	110.80
1	F	964	ASP	N-CA-CB	-16.40	82.78	110.49
1	F	391	ASN	N-CA-C	-16.37	86.06	109.31
1	F	549	GLN	N-CA-C	-15.61	91.75	114.39
1	F	366	SER	N-CA-C	-15.58	86.69	109.59
1	B	663	ASP	N-CA-C	15.47	143.74	110.80
1	F	801	SER	N-CA-C	-14.89	85.72	109.39
1	A	737	VAL	CB-CA-C	-14.52	87.47	111.29
1	A	723	ALA	N-CA-C	-14.02	95.76	113.43
1	B	731	GLU	N-CA-C	-13.98	81.02	110.80
1	F	647	MET	N-CA-CB	-13.90	87.97	110.63
1	A	581	ASP	N-CA-C	-13.87	96.68	113.19
1	A	750	ASP	N-CA-C	13.75	131.67	110.36
1	A	749	LEU	N-CA-C	-13.09	85.16	107.80
1	A	606	HIS	N-CA-C	12.91	127.89	111.24
1	A	608	PHE	N-CA-C	-12.78	95.86	111.33
1	F	646	PHE	CB-CA-C	-12.48	89.21	109.80
1	B	193	TYR	N-CA-C	12.47	137.36	110.80
1	A	582	ILE	N-CA-C	-12.38	97.99	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	547	ASP	N-CA-C	-12.22	92.33	108.34
1	F	875	ASP	N-CA-CB	-11.87	92.84	109.94
1	B	602	SER	N-CA-CB	-11.85	90.91	110.22
1	F	647	MET	N-CA-C	11.60	128.85	110.17
1	F	724	LYS	N-CA-C	-11.01	94.98	110.50
1	A	550	PHE	N-CA-C	-10.98	98.84	111.03
2	H	231	MET	N-CA-CB	-10.63	92.53	110.49
1	E	632	ASP	N-CA-C	10.62	121.96	107.73
1	A	747	ARG	N-CA-C	-10.46	88.53	110.80
1	E	252	PRO	CA-N-CD	-10.44	97.38	112.00
1	A	722	PHE	CB-CA-C	-10.38	96.12	111.91
1	F	961	ASN	N-CA-C	-10.31	92.13	108.63
1	F	875	ASP	N-CA-C	10.26	123.88	109.31
1	F	904	ILE	N-CA-C	-10.19	93.28	107.75
1	B	664	ILE	N-CA-CB	-10.04	94.67	111.23
1	F	722	PHE	CB-CA-C	-10.00	95.09	111.50
1	B	601	TRP	CB-CA-C	-9.93	89.55	110.31
2	C	68	PHE	N-CA-C	-9.93	94.36	109.94
1	A	752	GLY	N-CA-C	-9.89	100.67	112.64
1	B	183	VAL	N-CA-C	-9.83	88.89	109.34
1	B	733	LEU	N-CA-C	9.66	121.57	111.14
1	B	663	ASP	CB-CA-C	-9.64	91.24	110.42
1	F	830	ASP	N-CA-C	9.63	131.31	110.80
1	F	963	ASN	N-CA-C	-9.59	94.83	109.79
1	B	183	VAL	N-CA-CB	9.49	126.89	111.23
1	B	194	ASP	N-CA-CB	9.41	126.04	111.18
1	B	677	ARG	N-CA-C	9.35	124.31	108.23
2	H	24	THR	CA-C-N	9.29	136.81	121.39
2	H	24	THR	C-N-CA	9.29	136.81	121.39
1	A	799	LEU	N-CA-C	-9.28	98.69	110.19
1	F	906	THR	N-CA-C	9.27	124.40	113.18
1	F	229	LEU	N-CA-C	-9.13	99.88	112.12
2	C	171	TYR	CB-CA-C	8.91	122.44	110.06
1	E	305	ASP	N-CA-C	8.90	122.64	111.69
1	A	543	GLU	N-CA-CB	8.85	125.45	110.49
1	E	520	THR	N-CA-C	-8.73	95.05	108.31
1	F	366	SER	CB-CA-C	8.44	122.91	110.26
1	A	607	GLU	N-CA-C	-8.25	101.08	112.30
1	F	960	LYS	N-CA-C	-8.24	102.23	111.71
1	B	664	ILE	N-CA-C	-8.09	92.51	109.34
1	A	542	LEU	CB-CA-C	-8.08	98.98	112.00
1	F	933	PHE	N-CA-C	7.94	120.64	111.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	228	LEU	CB-CA-C	-7.70	98.68	111.23
1	E	631	ILE	N-CA-C	7.54	119.20	108.42
1	A	543	GLU	N-CA-C	-7.39	95.06	110.80
2	G	207	SER	N-CA-C	7.29	121.22	111.30
1	E	621	GLU	N-CA-C	7.12	118.94	111.03
1	F	965	LYS	N-CA-C	-7.07	105.20	114.31
1	A	746	GLU	N-CA-C	7.05	123.93	114.12
1	B	730	GLU	CB-CA-C	-7.01	96.47	110.42
1	A	583	VAL	N-CA-C	-6.97	102.98	110.23
1	B	675	LYS	N-CA-C	6.94	119.26	110.24
1	B	962	TYR	N-CA-C	6.78	118.10	108.74
2	H	24	THR	N-CA-C	6.71	120.34	109.40
1	B	492	PHE	N-CA-C	-6.71	104.57	112.89
1	F	549	GLN	N-CA-CB	6.71	119.83	110.98
1	F	966	LEU	N-CA-C	-6.69	103.19	111.75
1	A	550	PHE	CA-C-N	-6.67	111.25	120.38
1	A	550	PHE	C-N-CA	-6.67	111.25	120.38
1	E	693	GLU	CA-CB-CG	6.66	127.42	114.10
1	B	730	GLU	N-CA-C	-6.62	96.71	110.80
1	F	548	ASN	CB-CA-C	-6.62	101.25	111.83
1	F	799	LEU	N-CA-C	6.56	120.14	111.28
1	E	521	ASN	N-CA-CB	-6.47	100.02	110.69
1	B	787	ILE	N-CA-C	-6.46	107.57	113.71
1	B	182	ASN	CB-CA-C	-6.40	101.11	110.96
2	H	171	TYR	CB-CA-C	6.39	123.13	110.42
2	H	170	ARG	N-CA-C	-6.35	97.28	110.80
1	B	963	ASN	N-CA-C	-6.27	103.68	113.02
1	A	682	GLU	N-CA-C	6.11	118.44	111.11
1	A	748	ASP	N-CA-C	6.00	118.04	110.24
1	A	738	LYS	N-CA-C	-5.96	106.25	112.93
1	A	548	ASN	N-CA-CB	-5.96	102.67	110.59
1	F	861	ASN	N-CA-C	-5.89	101.58	110.24
1	A	580	SER	O-C-N	-5.89	116.33	123.10
1	F	723	ALA	N-CA-C	-5.86	98.32	110.80
1	F	959	LEU	N-CA-C	-5.78	106.23	113.28
1	F	603	VAL	N-CA-C	5.74	117.16	110.62
1	F	712	PHE	N-CA-C	-5.71	104.07	113.50
1	B	569	MET	CB-CG-SD	5.71	129.84	112.70
1	F	712	PHE	N-CA-CB	5.68	122.38	111.07
2	H	227	ASP	N-CA-C	5.68	117.16	110.97
1	F	932	GLU	N-CA-C	5.67	117.32	111.03
1	F	864	ASP	N-CA-C	-5.62	98.84	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	495	LEU	CA-C-N	-5.61	113.75	119.98
1	B	495	LEU	C-N-CA	-5.61	113.75	119.98
1	A	722	PHE	N-CA-C	-5.59	102.04	110.70
1	F	722	PHE	N-CA-C	-5.55	98.47	108.58
1	B	674	ASP	N-CA-C	-5.55	99.99	108.76
2	G	170	ARG	N-CA-C	5.55	117.70	110.43
1	F	711	GLN	N-CA-C	5.53	122.57	110.80
1	B	965	LYS	N-CA-C	-5.53	105.64	112.38
1	F	867	ASN	N-CA-C	5.50	119.96	112.04
2	C	206	MET	CB-CA-C	-5.50	104.13	111.88
1	E	693	GLU	CA-C-N	-5.48	111.98	120.31
1	E	693	GLU	C-N-CA	-5.48	111.98	120.31
2	G	169	GLU	N-CA-C	-5.47	103.86	111.30
1	B	183	VAL	CB-CA-C	-5.42	102.40	111.29
2	G	233	VAL	N-CA-C	-5.37	100.92	108.27
1	E	521	ASN	N-CA-C	5.28	118.31	107.69
2	H	231	MET	N-CA-C	-5.22	99.69	110.80
2	G	237	ALA	CB-CA-C	-5.18	107.93	114.40
1	A	677	ARG	N-CA-C	-5.15	98.17	107.75
1	A	580	SER	CB-CA-C	5.06	118.06	109.50
1	E	635	GLY	N-CA-C	-5.06	101.18	113.18
1	F	802	ARG	N-CA-CB	-5.04	104.19	110.90
1	B	496	GLY	N-CA-C	5.04	118.78	112.73
1	B	640	GLY	N-CA-C	-5.01	101.31	113.18

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	580	SER	Mainchain
1	E	297	GLN	Peptide
2	H	24	THR	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	8183	0	8010	503	0
1	B	8183	0	8010	426	0
1	E	8183	0	8010	517	0
1	F	8183	0	8010	569	0
2	C	1198	0	1159	67	0
2	D	1198	0	1159	76	0
2	G	1198	0	1159	101	0
2	H	1198	0	1159	111	0
All	All	37524	0	36676	2201	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 30.

All (2201) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:134:TYR:CD2	1:B:183:VAL:HG13	1.48	1.45
1:B:601:TRP:CD2	1:B:601:TRP:O	1.72	1.39
1:B:134:TYR:CD2	1:B:183:VAL:CG1	2.09	1.34
1:B:134:TYR:CE2	1:B:183:VAL:HG13	1.81	1.14
1:E:519:MET:SD	1:E:520:THR:O	2.04	1.14
1:B:601:TRP:O	1:B:601:TRP:CE3	2.01	1.14
1:A:405:THR:H	2:C:4:VAL:HB	1.16	1.10
2:H:23:PHE:H	2:H:69:ASP:HB2	1.18	1.09
1:B:601:TRP:O	1:B:601:TRP:CG	2.06	1.09
1:A:582:ILE:HA	1:A:585:LEU:HG	1.35	1.08
2:H:24:THR:O	2:H:65:ASN:ND2	1.89	1.06
1:F:963:ASN:O	1:F:967:LEU:HD21	1.56	1.03
2:H:13:PHE:HB3	2:H:171:TYR:HE2	1.23	1.00
1:B:193:TYR:O	1:B:193:TYR:HD1	1.45	0.98
1:B:134:TYR:CD2	1:B:183:VAL:HG11	1.97	0.97
1:F:908:SER:HA	2:G:231:MET:HB3	1.45	0.97
1:A:403:LEU:H	2:C:6:GLN:HE22	1.15	0.94
1:B:134:TYR:HD2	1:B:183:VAL:HG13	1.22	0.92
1:B:610:GLN:O	1:B:614:ASN:ND2	2.03	0.92
1:F:801:SER:O	1:F:840:LYS:HE3	1.70	0.91
1:E:531:MET:HE3	1:E:532:PRO:HD2	1.52	0.91
1:A:549:GLN:CA	1:A:552:TYR:HB2	2.01	0.90
1:F:652:PHE:CZ	1:F:722:PHE:O	2.25	0.90
1:A:547:ASP:O	1:A:550:PHE:CE1	2.25	0.90
1:B:193:TYR:O	1:B:193:TYR:CD1	2.26	0.89
1:A:247:ARG:NH2	1:A:251:SER:O	2.04	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:963:ASN:O	1:F:967:LEU:CD2	2.20	0.88
1:E:1001:MET:HE3	1:F:985:LYS:HZ2	1.39	0.88
1:B:134:TYR:HD2	1:B:183:VAL:CG1	1.71	0.87
1:A:547:ASP:O	1:A:550:PHE:HE1	1.57	0.87
2:H:230:GLU:O	2:H:231:MET:HE2	1.73	0.87
2:C:16:LYS:HG3	2:C:170:ARG:HB2	1.57	0.87
1:E:629:ARG:CD	1:E:630:ASP:O	2.24	0.86
1:E:749:LEU:HG	1:E:753:LYS:HD3	1.57	0.86
1:F:223:TYR:O	1:F:227:MET:HB3	1.77	0.85
1:A:582:ILE:HA	1:A:585:LEU:CG	2.06	0.85
1:B:58:GLN:HG3	1:B:60:TRP:H	1.41	0.84
1:F:809:LYS:HZ3	1:F:815:PHE:H	1.25	0.84
1:A:713:ILE:HG21	1:A:717:LYS:HB2	1.57	0.84
1:E:698:GLN:HG2	1:E:712:PHE:HE2	1.42	0.84
1:B:193:TYR:CD1	1:B:193:TYR:C	2.55	0.84
1:F:222:ASP:H	1:F:225:ILE:HG22	1.42	0.84
1:F:652:PHE:HZ	1:F:722:PHE:O	1.60	0.83
2:G:28:GLN:HB3	2:G:64:LYS:HD3	1.59	0.83
1:A:549:GLN:HA	1:A:552:TYR:HB2	1.60	0.83
1:B:576:PHE:HA	1:B:639:PHE:HB3	1.58	0.82
1:F:331:LYS:HZ1	1:F:338:TYR:H	1.26	0.82
1:F:376:LYS:HZ1	1:F:380:ARG:HD3	1.44	0.82
1:A:682:GLU:O	1:A:686:GLU:HG2	1.80	0.82
1:E:629:ARG:HG3	1:E:631:ILE:HB	1.59	0.82
1:B:472:TYR:HE2	1:B:542:LEU:HG	1.42	0.82
1:A:580:SER:HB2	1:A:582:ILE:HG23	1.60	0.82
1:F:962:TYR:HD1	1:F:967:LEU:HD22	1.45	0.82
1:A:646:PHE:HB3	1:A:677:ARG:HE	1.43	0.81
1:A:580:SER:C	1:A:582:ILE:N	2.28	0.81
1:E:242:LYS:NZ	1:E:265:GLY:O	2.13	0.81
1:B:612:ILE:HG21	1:B:654:ASN:HB3	1.62	0.81
1:A:489:VAL:O	1:A:493:ASN:ND2	2.13	0.80
2:H:64:LYS:HG2	2:H:217:GLU:HB3	1.61	0.80
1:F:974:LYS:HA	1:F:977:LYS:HE3	1.64	0.79
1:F:338:TYR:HA	1:F:348:ARG:HA	1.62	0.79
1:B:213:ILE:HB	1:B:243:PRO:HB3	1.63	0.79
1:F:310:ASP:HA	1:F:380:ARG:HH12	1.46	0.79
1:A:357:MET:HE3	1:A:357:MET:H	1.48	0.79
2:H:22:VAL:CG1	2:H:171:TYR:OH	2.30	0.79
2:H:23:PHE:HE1	2:H:66:ALA:HB2	1.46	0.79
1:F:800:TYR:C	1:F:802:ARG:H	1.89	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:800:TYR:O	1:F:802:ARG:N	2.14	0.79
1:E:987:ARG:NH1	1:F:630:ASP:OD2	2.16	0.79
1:A:405:THR:N	2:C:4:VAL:HB	1.98	0.78
1:E:837:PHE:HA	1:E:840:LYS:HB3	1.65	0.78
1:B:569:MET:HE3	1:B:570:SER:H	1.46	0.78
1:F:553:ASP:OD1	1:F:554:ASP:N	2.17	0.77
1:A:580:SER:C	1:A:582:ILE:H	1.89	0.77
1:A:316:ILE:HG23	1:A:319:LEU:HD22	1.66	0.77
1:A:582:ILE:CA	1:A:585:LEU:HG	2.14	0.77
1:E:647:MET:SD	1:E:647:MET:N	2.58	0.77
1:B:152:ILE:HG23	1:B:157:ASP:HB2	1.66	0.77
1:B:661:ILE:HG13	1:B:663:ASP:H	1.49	0.77
2:D:26:GLU:O	2:D:65:ASN:ND2	2.18	0.77
1:F:985:LYS:O	1:F:989:LYS:HB3	1.85	0.77
1:A:86:ARG:NH2	1:E:260:TYR:OH	2.18	0.76
1:F:909:SER:H	2:G:231:MET:CB	1.98	0.76
1:A:582:ILE:HG13	1:A:583:VAL:N	2.01	0.76
1:F:247:ARG:HB3	1:F:271:ALA:H	1.51	0.75
1:F:984:LEU:HB3	1:F:1000:LEU:HD12	1.66	0.75
2:G:20:LYS:HG2	2:G:72:TRP:CZ3	2.21	0.75
1:E:487:GLN:NE2	2:H:207:SER:H	1.85	0.75
1:E:605:PHE:HA	2:H:207:SER:HB2	1.67	0.75
1:A:771:ILE:HG12	1:A:775:ILE:HD11	1.67	0.75
1:F:551:LEU:O	1:F:555:THR:OG1	2.05	0.75
1:F:801:SER:C	1:F:840:LYS:HE3	2.11	0.75
1:F:869:ILE:HD11	1:F:874:ILE:O	1.87	0.75
1:A:586:LEU:HA	1:A:589:TYR:HD2	1.52	0.74
1:E:487:GLN:HE22	2:H:207:SER:H	1.33	0.74
1:F:357:MET:HE3	1:F:357:MET:H	1.49	0.74
2:H:21:LEU:O	2:H:69:ASP:HB3	1.87	0.74
1:A:678:PHE:HB2	1:A:726:VAL:HA	1.68	0.74
1:F:85:LEU:O	1:F:89:GLN:NE2	2.20	0.74
1:F:41:LYS:HG2	1:F:211:HIS:HD2	1.52	0.74
1:E:543:GLU:O	1:E:546:SER:OG	2.05	0.74
1:E:706:VAL:HA	1:E:709:TYR:HB3	1.70	0.74
2:G:14:LYS:O	2:G:172:GLU:N	2.20	0.74
1:F:711:GLN:O	1:F:712:PHE:CD1	2.41	0.74
1:E:788:ASP:OD1	1:E:789:GLN:N	2.21	0.73
1:B:233:ARG:NH1	1:B:263:ASN:O	2.21	0.73
2:D:45:ILE:HG23	2:D:47:ASN:H	1.52	0.73
1:E:30:ILE:HA	1:E:33:ILE:HD12	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:713:ILE:HG13	1:A:716:ALA:HB3	1.71	0.73
1:F:342:VAL:HG21	1:F:586:LEU:HB3	1.71	0.73
1:F:909:SER:H	2:G:231:MET:HB2	1.52	0.73
1:E:967:LEU:HD22	1:E:1004:PHE:HE1	1.52	0.73
1:F:1002:ASN:OD1	1:F:1003:TYR:N	2.21	0.73
1:B:640:GLY:O	1:B:641:LYS:HG3	1.89	0.72
1:B:584:VAL:O	1:B:588:LEU:HB2	1.89	0.72
2:C:212:ASN:ND2	2:C:214:LEU:O	2.22	0.72
1:A:331:LYS:HB2	1:A:541:ILE:HG12	1.72	0.72
1:A:570:SER:O	1:B:669:ARG:NH2	2.23	0.72
1:B:457:ASN:HA	1:B:460:LEU:HD12	1.71	0.72
1:A:759:GLU:HG3	2:D:41:LEU:HB3	1.72	0.72
1:E:578:MET:H	1:E:578:MET:HE3	1.54	0.72
1:E:487:GLN:NE2	2:H:205:GLU:OE2	2.22	0.72
1:F:341:GLU:OE1	1:F:343:ASN:ND2	2.22	0.72
1:A:548:ASN:HB2	2:D:210:ASN:HD21	1.53	0.72
1:F:970:ILE:O	1:F:973:ASN:ND2	2.23	0.72
1:B:685:GLU:OE1	1:B:732:GLY:N	2.22	0.72
1:E:304:LYS:HZ3	1:E:307:GLU:HB2	1.55	0.72
1:B:172:GLY:O	1:B:183:VAL:HG22	1.89	0.71
1:B:593:ARG:HA	1:B:596:TYR:HB2	1.72	0.71
1:A:606:HIS:HD2	2:D:208:LEU:HB3	1.55	0.71
1:A:751:ILE:HA	1:A:754:ARG:CG	2.19	0.71
1:A:753:LYS:HB3	1:A:757:TRP:CZ3	2.25	0.71
2:C:2:LYS:HD2	2:C:3:THR:HG22	1.72	0.71
1:F:574:TYR:N	2:H:32:PHE:O	2.20	0.71
1:F:887:GLU:OE2	1:F:891:THR:OG1	2.09	0.71
2:G:14:LYS:HA	2:G:20:LYS:HB3	1.72	0.71
1:A:332:HIS:HA	1:A:336:TYR:H	1.54	0.71
1:B:327:LYS:HA	1:B:327:LYS:HE3	1.72	0.71
1:B:661:ILE:O	1:B:665:LYS:HB3	1.90	0.71
1:E:674:ASP:OD1	1:E:725:TYR:OH	2.05	0.71
2:H:190:ASP:H	2:H:237:ALA:HB3	1.55	0.71
1:F:453:ASP:O	1:F:456:SER:OG	2.06	0.71
1:F:800:TYR:C	1:F:802:ARG:N	2.41	0.71
2:G:15:ARG:HG2	2:G:20:LYS:HG3	1.73	0.71
1:F:41:LYS:HZ2	1:F:211:HIS:HA	1.56	0.71
2:H:13:PHE:HB3	2:H:171:TYR:CE2	2.16	0.71
1:E:151:VAL:HA	1:E:167:LEU:HB3	1.71	0.71
1:F:575:SER:HA	2:H:31:SER:HA	1.72	0.70
1:B:145:ARG:HG3	1:B:147:LYS:HE2	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:588:LEU:HD21	1:B:615:SER:HB2	1.73	0.70
2:D:30:ALA:HA	2:D:63:VAL:HG12	1.73	0.70
1:E:370:ARG:NH1	1:E:370:ARG:O	2.25	0.70
1:A:842:LEU:HD12	1:A:845:LEU:HD12	1.72	0.70
1:E:473:LEU:HD22	1:E:600:LEU:HD21	1.73	0.70
1:E:631:ILE:HG13	1:E:632:ASP:N	2.06	0.70
1:F:339:HIS:N	1:F:347:VAL:O	2.24	0.70
1:F:471:TYR:O	1:F:475:GLN:NE2	2.24	0.70
1:F:842:LEU:HA	1:F:845:LEU:HD12	1.73	0.70
1:B:477:ASN:O	1:B:481:ILE:HG12	1.91	0.70
1:A:482:TYR:HE2	1:A:519:MET:HB2	1.57	0.70
1:B:405:THR:O	2:D:1:MET:N	2.25	0.70
1:F:614:ASN:OD1	1:F:615:SER:N	2.24	0.70
2:H:24:THR:O	2:H:24:THR:OG1	1.94	0.70
1:B:729:SER:HB3	1:B:731:GLU:CD	2.16	0.70
1:F:960:LYS:HZ1	1:F:999:ILE:HG13	1.56	0.70
1:A:154:ALA:N	1:A:157:ASP:OD2	2.24	0.70
1:E:704:MET:HA	1:E:704:MET:HE2	1.74	0.70
2:G:168:SER:N	2:G:170:ARG:HE	1.88	0.70
1:B:575:SER:HB2	1:B:578:MET:HG2	1.73	0.69
1:E:277:SER:OG	1:E:285:ARG:NH2	2.25	0.69
2:H:23:PHE:H	2:H:69:ASP:CB	2.02	0.69
1:A:549:GLN:O	1:A:553:ASP:N	2.26	0.69
1:E:909:SER:HB3	2:H:231:MET:HE3	1.73	0.69
2:C:15:ARG:HD2	2:C:169:GLU:HB2	1.73	0.69
1:B:343:ASN:HA	1:B:586:LEU:HG	1.73	0.69
2:H:179:ALA:HB2	2:H:191:ILE:HD11	1.73	0.69
1:A:627:ARG:O	1:B:990:ASN:ND2	2.26	0.69
1:E:195:GLN:O	1:F:237:LYS:NZ	2.21	0.69
1:B:551:LEU:HD13	1:B:607:GLU:HB2	1.75	0.69
1:E:967:LEU:HD22	1:E:1004:PHE:CE1	2.28	0.69
1:A:551:LEU:O	1:A:555:THR:OG1	2.09	0.69
1:E:728:LEU:HD13	1:E:765:ASN:HB3	1.75	0.69
1:E:751:ILE:O	1:E:804:TYR:OH	2.09	0.69
1:F:261:TYR:HA	1:F:264:LYS:HG2	1.75	0.68
1:E:309:ILE:H	1:E:309:ILE:HD12	1.57	0.68
2:H:72:TRP:HA	2:H:72:TRP:CE3	2.29	0.68
1:A:74:PRO:O	1:A:76:LYS:NZ	2.26	0.68
1:E:395:CYS:SG	1:E:396:MET:N	2.67	0.68
1:A:659:PHE:CD2	1:A:664:ILE:HD11	2.29	0.68
1:A:676:ILE:HG23	1:A:677:ARG:N	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:831:LYS:HB3	1:A:834:GLN:HB3	1.76	0.68
1:B:561:LEU:HA	1:B:564:LYS:HB2	1.75	0.68
1:E:236:GLN:HB3	1:E:240:PHE:HB2	1.74	0.68
1:A:746:GLU:O	1:A:748:ASP:N	2.27	0.68
1:E:662:ASP:OD1	1:E:663:ASP:N	2.27	0.68
1:F:711:GLN:O	1:F:712:PHE:HD1	1.76	0.68
1:F:869:ILE:CD1	1:F:874:ILE:O	2.41	0.68
1:A:86:ARG:HD2	1:A:187:GLU:HG3	1.76	0.68
1:F:437:LYS:NZ	1:F:599:CYS:SG	2.62	0.68
1:A:681:GLN:O	1:A:685:GLU:HB2	1.94	0.68
1:A:622:LYS:O	1:A:626:GLU:HB2	1.94	0.68
1:B:115:ASN:H	1:B:118:HIS:CD2	2.12	0.68
1:B:184:VAL:C	1:B:185:LEU:HD22	2.19	0.68
1:E:252:PRO:HD2	1:E:252:PRO:O	1.94	0.67
1:E:493:ASN:HA	1:E:503:HIS:HE1	1.58	0.67
2:C:61:LEU:HB2	2:C:220:PHE:HB2	1.75	0.67
1:A:235:LEU:HD22	1:B:195:GLN:HA	1.76	0.67
1:A:707:VAL:O	1:A:711:GLN:NE2	2.27	0.67
1:A:606:HIS:CD2	2:D:208:LEU:HB3	2.29	0.67
1:B:646:PHE:HB3	1:B:677:ARG:NH1	2.09	0.67
1:B:724:LYS:HD2	1:B:761:LEU:HA	1.75	0.67
1:E:915:THR:HA	1:E:918:ILE:HG22	1.75	0.67
1:A:296:SER:HA	1:A:300:LYS:HD2	1.77	0.67
1:B:587:ARG:O	1:B:591:ASN:ND2	2.27	0.67
2:G:175:TYR:HB2	2:G:193:ILE:HB	1.77	0.67
2:C:170:ARG:HA	2:C:170:ARG:CZ	2.23	0.67
1:E:231:TRP:HA	1:E:234:LYS:HB2	1.77	0.67
1:E:247:ARG:HD3	1:E:249:ASP:H	1.58	0.67
1:E:616:MET:HG2	1:E:659:PHE:CZ	2.30	0.67
1:E:629:ARG:HD3	1:E:630:ASP:O	1.93	0.67
1:F:279:GLU:O	1:F:285:ARG:NH1	2.25	0.67
1:A:607:GLU:C	1:A:609:HIS:N	2.41	0.67
1:A:802:ARG:HB2	1:A:840:LYS:HB3	1.74	0.67
1:A:582:ILE:O	1:A:583:VAL:C	2.36	0.67
1:A:699:PHE:HB2	1:A:704:MET:HG3	1.76	0.67
1:B:118:HIS:HA	1:B:121:ILE:HG22	1.77	0.67
1:B:724:LYS:HZ2	1:B:760:ARG:HB3	1.58	0.67
2:C:16:LYS:CG	2:C:170:ARG:HB2	2.25	0.67
1:E:567:SER:OG	1:E:568:GLU:OE1	2.10	0.67
1:E:605:PHE:O	1:E:609:HIS:ND1	2.24	0.67
1:F:304:LYS:HB2	1:F:307:GLU:HB2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:849:ALA:HA	1:F:852:HIS:HE1	1.59	0.67
2:D:31:SER:N	2:D:62:THR:O	2.28	0.67
1:F:228:LEU:HD12	1:F:228:LEU:O	1.94	0.67
1:F:892:ARG:HA	1:F:895:ASN:HD22	1.59	0.67
1:A:463:ILE:HD13	1:B:143:TRP:HB3	1.76	0.66
1:E:937:ASP:OD1	1:E:940:TYR:N	2.22	0.66
1:A:580:SER:C	1:A:583:VAL:H	2.02	0.66
1:A:582:ILE:O	1:A:586:LEU:N	2.23	0.66
1:B:593:ARG:O	1:B:597:GLU:N	2.28	0.66
1:E:302:ILE:HG23	1:E:307:GLU:HB3	1.77	0.66
1:E:374:SER:HB2	1:E:377:GLN:HG2	1.77	0.66
1:A:501:GLY:HA3	1:A:747:ARG:HH22	1.60	0.66
1:A:751:ILE:HG23	1:A:799:LEU:HD22	1.75	0.66
1:B:482:TYR:HA	1:B:485:ILE:HD12	1.78	0.66
1:B:571:GLU:OE1	1:B:571:GLU:N	2.29	0.66
2:C:70:LEU:HA	2:C:73:LEU:HB3	1.76	0.66
2:D:28:GLN:OE1	2:D:28:GLN:N	2.27	0.66
1:E:570:SER:O	1:F:669:ARG:NH2	2.28	0.66
1:E:982:GLU:OE1	1:E:985:LYS:NZ	2.23	0.66
2:H:169:GLU:O	2:H:170:ARG:C	2.38	0.66
1:A:549:GLN:HB2	1:A:552:TYR:HB2	1.78	0.66
1:A:780:VAL:HG11	1:A:819:ARG:HB2	1.78	0.66
2:H:45:ILE:HG23	2:H:47:ASN:H	1.61	0.66
1:A:676:ILE:HG23	1:A:677:ARG:H	1.61	0.66
1:F:605:PHE:HD2	2:G:209:GLU:HB2	1.60	0.66
1:A:75:LYS:NZ	1:A:78:ASN:O	2.28	0.66
1:A:407:ILE:HB	2:C:2:LYS:HZ1	1.60	0.66
1:F:753:LYS:HE2	1:F:757:TRP:CE2	2.30	0.66
1:B:242:LYS:O	1:B:267:ARG:NH2	2.29	0.66
2:H:54:LYS:NZ	2:H:56:GLU:OE2	2.29	0.66
1:E:404:ASN:HA	2:G:4:VAL:HG11	1.77	0.66
1:F:452:TYR:HE1	1:F:514:ARG:HH21	1.42	0.66
1:F:869:ILE:HG12	1:F:919:TRP:HZ2	1.60	0.66
1:E:80:SER:HA	1:E:84:TYR:HB2	1.78	0.65
1:F:783:ALA:HA	1:F:786:HIS:CD2	2.32	0.65
1:A:581:ASP:O	1:A:584:VAL:HB	1.96	0.65
1:A:433:GLU:OE1	1:A:437:LYS:NZ	2.30	0.65
1:A:648:GLU:HB3	1:A:651:ASP:HB2	1.79	0.65
2:C:22:VAL:HG12	2:C:69:ASP:OD1	1.97	0.65
1:F:930:MET:SD	1:F:931:GLU:N	2.70	0.65
1:A:405:THR:HB	2:C:4:VAL:HG21	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:549:GLN:CB	1:A:552:TYR:HB2	2.27	0.65
1:A:698:GLN:O	1:A:702:ASN:N	2.24	0.65
1:B:569:MET:CE	1:B:570:SER:H	2.10	0.65
1:F:331:LYS:HZ1	1:F:337:ASP:H	1.45	0.65
1:F:717:LYS:NZ	1:F:748:ASP:O	2.23	0.65
2:H:21:LEU:C	2:H:69:ASP:HB3	2.22	0.65
1:B:578:MET:HA	1:B:582:ILE:HG13	1.79	0.65
1:E:519:MET:O	1:E:520:THR:C	2.39	0.65
1:F:173:ASP:OD2	1:F:175:ARG:NE	2.28	0.65
2:H:11:VAL:HG13	2:H:175:TYR:HE1	1.61	0.65
1:E:755:TYR:CE2	1:E:803:ASP:HB3	2.31	0.65
2:H:22:VAL:HG13	2:H:171:TYR:OH	1.97	0.65
1:A:46:VAL:HG23	1:A:216:ILE:HD11	1.78	0.65
1:E:589:TYR:OH	1:E:651:ASP:OD1	2.12	0.65
1:E:606:HIS:NE2	2:H:205:GLU:O	2.30	0.65
1:F:25:ASN:OD1	1:F:26:VAL:N	2.30	0.65
1:F:91:PHE:HA	1:F:94:VAL:HG12	1.80	0.65
2:C:16:LYS:O	2:C:169:GLU:HG2	1.98	0.64
1:E:205:LYS:HZ3	1:F:199:LEU:HD23	1.63	0.64
1:F:913:MET:HE3	1:F:913:MET:H	1.63	0.64
2:H:14:LYS:HB3	2:H:172:GLU:HG2	1.79	0.64
1:B:184:VAL:O	1:B:185:LEU:HD22	1.96	0.64
2:D:22:VAL:HB	2:D:72:TRP:HB2	1.78	0.64
1:E:127:ALA:O	1:E:128:HIS:ND1	2.30	0.64
1:E:711:GLN:NE2	1:E:715:GLU:OE2	2.30	0.64
1:A:82:ASP:OD1	1:A:83:GLU:N	2.30	0.64
1:A:235:LEU:HD11	1:B:198:PRO:HG3	1.77	0.64
1:E:29:CYS:SG	1:E:267:ARG:NH2	2.68	0.64
1:E:75:LYS:HG2	1:E:77:GLY:H	1.62	0.64
2:G:73:LEU:O	2:G:77:GLN:HB3	1.97	0.64
1:A:63:VAL:HG21	1:A:84:TYR:HD1	1.63	0.64
1:A:812:GLU:CD	1:A:813:LYS:H	2.05	0.64
1:B:624:GLU:HB3	1:B:627:ARG:HH21	1.61	0.64
1:F:70:LEU:HD21	1:F:95:LYS:HE2	1.79	0.64
1:F:331:LYS:NZ	1:F:338:TYR:H	1.93	0.64
2:H:32:PHE:HE1	2:H:59:ILE:HG23	1.61	0.64
1:B:613:ARG:HA	1:B:659:PHE:CZ	2.32	0.64
1:E:440:PHE:CD2	1:E:599:CYS:HA	2.33	0.64
1:F:396:MET:SD	1:F:398:LYS:N	2.67	0.64
1:F:404:ASN:O	2:H:1:MET:N	2.24	0.64
1:F:495:LEU:HA	1:F:498:LEU:HD23	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:189:ASP:O	1:A:193:TYR:N	2.31	0.64
1:B:455:TYR:O	1:B:459:ILE:HG12	1.97	0.64
1:E:189:ASP:O	1:E:193:TYR:N	2.30	0.64
1:F:721:TYR:O	1:F:723:ALA:N	2.30	0.64
1:F:849:ALA:HA	1:F:852:HIS:CE1	2.32	0.64
1:E:82:ASP:OD1	1:E:83:GLU:N	2.31	0.64
1:E:616:MET:HG2	1:E:659:PHE:HZ	1.63	0.64
1:F:869:ILE:HA	1:F:874:ILE:H	1.63	0.64
1:A:223:TYR:O	1:A:226:ASN:N	2.29	0.64
1:A:659:PHE:HB3	1:A:718:ALA:HB3	1.79	0.64
1:B:609:HIS:HA	1:B:658:HIS:HB3	1.80	0.64
1:B:626:GLU:HA	1:B:629:ARG:HE	1.63	0.64
2:G:14:LYS:N	2:G:172:GLU:O	2.29	0.64
1:B:648:GLU:HB3	2:D:2:LYS:HZ1	1.62	0.63
2:G:15:ARG:HA	2:G:170:ARG:O	1.97	0.63
1:A:411:SER:HB3	1:A:414:TYR:HB3	1.79	0.63
1:A:473:LEU:HD12	1:A:600:LEU:HD21	1.79	0.63
1:F:724:LYS:HB3	1:F:760:ARG:O	1.99	0.63
1:A:607:GLU:O	1:A:608:PHE:C	2.39	0.63
2:G:65:ASN:CG	2:G:67:PHE:H	2.05	0.63
2:C:22:VAL:HG21	2:C:171:TYR:HE1	1.63	0.63
1:E:241:HIS:NE2	1:F:159:ALA:O	2.27	0.63
1:E:488:ALA:HA	1:E:491:GLN:HE21	1.63	0.63
1:F:339:HIS:HD2	1:F:349:HIS:HB3	1.63	0.63
1:F:975:HIS:ND1	1:F:976:MET:SD	2.70	0.63
1:A:583:VAL:O	1:A:586:LEU:HD12	1.98	0.63
1:E:190:TYR:OH	1:E:224:ASN:OD1	2.15	0.63
1:E:277:SER:OG	1:E:278:ASN:N	2.30	0.63
1:F:709:TYR:CD1	1:F:713:ILE:HG13	2.33	0.63
1:A:334:PHE:O	1:A:337:ASP:HB2	1.97	0.63
1:F:939:GLN:HG2	1:F:943:PHE:CZ	2.33	0.63
2:G:194:GLN:NE2	2:G:195:PHE:O	2.32	0.63
1:A:614:ASN:OD1	1:A:615:SER:N	2.31	0.63
1:F:960:LYS:HD3	1:F:996:TYR:CE2	2.33	0.63
1:E:78:ASN:HB2	1:E:81:SER:HB3	1.81	0.63
1:F:722:PHE:HA	1:F:724:LYS:HE2	1.79	0.63
1:E:544:PHE:CZ	1:E:550:PHE:HB2	2.33	0.63
1:A:83:GLU:HA	1:A:86:ARG:HB2	1.80	0.62
1:B:29:CYS:O	1:B:33:ILE:HG12	1.98	0.62
1:E:396:MET:SD	1:E:397:ALA:N	2.72	0.62
1:E:606:HIS:HB3	1:E:610:GLN:NE2	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:780:VAL:HG11	1:F:820:LEU:HB3	1.81	0.62
2:G:189:SER:HB3	2:G:238:SER:HB3	1.81	0.62
1:A:458:ILE:O	1:A:462:SER:OG	2.15	0.62
1:A:728:LEU:HG	1:A:764:CYS:SG	2.38	0.62
1:A:802:ARG:HD2	1:A:840:LYS:HG2	1.80	0.62
1:B:247:ARG:HE	1:B:248:THR:H	1.45	0.62
1:E:680:GLU:O	1:E:680:GLU:OE2	2.15	0.62
1:F:960:LYS:HD2	1:F:962:TYR:CE2	2.34	0.62
2:C:170:ARG:O	2:C:172:GLU:N	2.32	0.62
1:E:674:ASP:HA	1:E:725:TYR:CE1	2.35	0.62
2:H:35:ALA:O	2:H:58:GLU:N	2.33	0.62
1:E:419:ASP:OD1	1:E:419:ASP:N	2.31	0.62
1:E:375:LYS:HA	1:E:378:TYR:HD1	1.64	0.62
1:E:481:ILE:O	1:E:485:ILE:HG12	2.00	0.62
1:F:326:ARG:NH1	1:F:591:ASN:OD1	2.28	0.62
1:F:860:GLU:O	1:F:861:ASN:C	2.43	0.62
1:F:861:ASN:O	1:F:862:ILE:C	2.43	0.62
2:D:22:VAL:HG23	2:D:69:ASP:HB2	1.80	0.62
1:A:41:LYS:HD2	1:A:211:HIS:HA	1.82	0.62
1:B:90:ILE:HG12	1:F:260:TYR:HD2	1.65	0.62
2:C:22:VAL:HG21	2:C:171:TYR:CE1	2.35	0.62
1:E:731:GLU:HA	1:E:734:GLY:HA2	1.82	0.62
1:E:984:LEU:O	1:E:988:VAL:HG23	2.00	0.62
1:A:651:ASP:O	1:A:655:ILE:HG12	1.99	0.62
1:B:490:THR:HA	1:B:493:ASN:HB2	1.82	0.62
1:E:581:ASP:OD1	1:E:582:ILE:N	2.33	0.62
1:A:717:LYS:NZ	1:A:749:LEU:HB3	2.15	0.62
1:B:476:ILE:O	1:B:480:ARG:HG2	1.99	0.62
1:B:899:GLU:HA	1:B:904:ILE:HD12	1.82	0.62
1:F:979:HIS:HD1	1:F:980:VAL:HG23	1.64	0.62
1:F:724:LYS:HD2	1:F:725:TYR:CE1	2.35	0.62
1:A:662:ASP:HA	1:A:665:LYS:HE2	1.80	0.61
1:B:223:TYR:HA	1:B:226:ASN:ND2	2.15	0.61
1:F:627:ARG:NH1	1:F:672:SER:OG	2.31	0.61
2:G:192:TYR:HB2	2:G:235:ILE:HB	1.80	0.61
1:B:348:ARG:NH1	1:B:351:ASN:O	2.33	0.61
1:E:370:ARG:NH1	1:E:373:LEU:HD22	2.15	0.61
1:E:724:LYS:NZ	1:E:760:ARG:O	2.30	0.61
1:E:558:LEU:O	1:E:562:THR:HG23	2.00	0.61
1:F:228:LEU:O	1:F:228:LEU:CG	2.49	0.61
1:F:509:ASP:HA	1:F:512:LEU:HD12	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:683:LYS:HA	1:F:686:GLU:OE2	2.00	0.61
1:A:586:LEU:HA	1:A:589:TYR:CD2	2.35	0.61
1:A:956:PRO:O	1:A:987:ARG:NH1	2.34	0.61
1:F:627:ARG:HH21	1:F:675:LYS:HZ2	1.48	0.61
1:F:995:ARG:O	1:F:999:ILE:HG12	2.01	0.61
1:A:67:HIS:ND1	1:A:73:SER:O	2.34	0.61
1:A:147:LYS:HD3	1:B:530:GLY:HA3	1.82	0.61
1:B:646:PHE:HB3	1:B:677:ARG:HH12	1.66	0.61
1:E:140:THR:O	1:E:144:LYS:HE2	2.01	0.61
1:E:208:ILE:HA	1:E:213:ILE:HG13	1.82	0.61
1:F:686:GLU:HA	1:F:689:VAL:HG22	1.81	0.61
1:A:660:LYS:HG3	1:A:661:ILE:H	1.66	0.61
1:B:724:LYS:NZ	1:B:760:ARG:HB3	2.16	0.61
1:E:758:LEU:HD11	1:E:807:LEU:HD22	1.81	0.61
1:F:116:PRO:O	1:F:120:LYS:NZ	2.32	0.61
1:F:956:PRO:HG3	1:F:987:ARG:HD2	1.82	0.61
2:G:72:TRP:O	2:G:76:THR:HB	2.00	0.61
1:A:475:GLN:OE1	1:A:478:ARG:NH1	2.29	0.61
1:A:528:PHE:HE2	1:A:542:LEU:O	1.83	0.61
2:D:61:LEU:O	2:D:220:PHE:N	2.32	0.61
1:F:86:ARG:HG3	1:F:87:ILE:HD12	1.83	0.61
1:F:286:TYR:O	1:F:290:MET:HG2	2.00	0.61
1:F:439:ALA:HB2	1:F:454:LEU:HD22	1.83	0.61
1:F:936:MET:N	1:F:936:MET:SD	2.74	0.61
1:B:472:TYR:CE2	1:B:542:LEU:HG	2.32	0.61
2:D:203:GLU:OE1	2:D:203:GLU:N	2.26	0.61
1:E:848:ASN:OD1	1:E:852:HIS:NE2	2.33	0.61
2:H:196:PRO:HG3	2:H:230:GLU:HA	1.82	0.61
1:A:34:THR:O	1:A:37:SER:OG	2.14	0.61
1:A:578:MET:HE1	1:A:586:LEU:HD21	1.82	0.61
1:B:609:HIS:NE2	1:B:660:LYS:HG2	2.16	0.61
1:E:904:ILE:HG12	2:H:235:ILE:HG23	1.81	0.61
1:F:294:ILE:O	1:F:295:GLU:HG2	2.01	0.61
1:B:154:ALA:N	1:B:157:ASP:OD2	2.30	0.60
1:E:912:TYR:O	1:E:915:THR:OG1	2.15	0.60
1:F:962:TYR:CD1	1:F:967:LEU:HD22	2.31	0.60
1:A:94:VAL:HG13	1:A:95:LYS:HD3	1.81	0.60
1:A:238:ASP:OD1	1:A:238:ASP:N	2.32	0.60
1:B:452:TYR:HA	1:B:455:TYR:CD2	2.36	0.60
1:B:688:LEU:HD21	1:B:736:ILE:HD11	1.83	0.60
2:D:196:PRO:HG2	2:D:230:GLU:HA	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:56:TYR:CZ	1:E:135:ASP:HB3	2.36	0.60
1:F:504:TYR:HE2	1:F:706:VAL:HG21	1.67	0.60
1:F:960:LYS:O	1:F:962:TYR:N	2.33	0.60
1:A:751:ILE:HG13	1:A:754:ARG:HB2	1.83	0.60
1:A:808:ILE:HG13	1:A:844:LEU:HD11	1.83	0.60
1:B:42:LEU:HD12	1:B:44:PHE:HE1	1.67	0.60
1:B:663:ASP:O	1:B:667:LEU:HB2	2.01	0.60
1:E:375:LYS:HA	1:E:378:TYR:CD1	2.35	0.60
1:E:922:LEU:HD22	1:E:969:LYS:HE2	1.81	0.60
1:F:357:MET:SD	1:F:358:GLU:N	2.74	0.60
2:G:38:GLU:HA	2:G:54:LYS:HZ1	1.65	0.60
1:A:685:GLU:OE2	1:A:728:LEU:HA	2.01	0.60
1:B:647:MET:SD	1:B:647:MET:N	2.75	0.60
1:F:407:ILE:H	2:H:2:LYS:HB3	1.65	0.60
1:B:130:ILE:HD13	1:B:168:LEU:HB3	1.82	0.60
1:B:175:ARG:NH1	1:B:175:ARG:O	2.34	0.60
1:F:895:ASN:O	1:F:899:GLU:HB2	2.02	0.60
1:F:228:LEU:O	1:F:228:LEU:HG	2.01	0.60
1:F:530:GLY:C	1:F:531:MET:HE2	2.26	0.60
1:F:987:ARG:HA	1:F:987:ARG:CZ	2.32	0.60
1:B:375:LYS:HA	1:B:378:TYR:HB2	1.84	0.60
1:E:192:ASN:O	1:E:196:ASN:N	2.31	0.60
2:G:168:SER:O	2:G:169:GLU:C	2.43	0.60
1:B:794:VAL:HG22	2:C:223:LEU:HD12	1.84	0.60
1:E:683:LYS:HA	1:E:683:LYS:HE3	1.84	0.60
1:E:698:GLN:HG2	1:E:712:PHE:CE2	2.32	0.60
1:F:134:TYR:OH	1:F:184:VAL:O	2.20	0.60
1:A:374:SER:OG	1:A:377:GLN:OE1	2.19	0.59
1:A:491:GLN:OE1	1:A:491:GLN:N	2.31	0.59
1:E:565:VAL:O	1:E:569:MET:HG2	2.01	0.59
1:E:245:PHE:HD2	1:E:268:ILE:HG23	1.66	0.59
1:A:25:ASN:HA	1:A:28:GLU:OE2	2.01	0.59
1:A:531:MET:HE3	1:A:532:PRO:HD2	1.84	0.59
1:F:233:ARG:NE	1:F:264:LYS:HA	2.17	0.59
2:G:188:TYR:CD2	2:G:238:SER:HB2	2.37	0.59
1:A:239:SER:O	1:A:239:SER:OG	2.19	0.59
1:B:414:TYR:OH	1:B:650:TYR:O	2.20	0.59
1:E:242:LYS:HZ2	1:E:265:GLY:C	2.05	0.59
2:H:22:VAL:HG12	2:H:171:TYR:OH	2.03	0.59
1:A:495:LEU:HD13	2:D:218:ILE:HD12	1.84	0.59
1:B:116:PRO:HA	1:B:119:ASP:OD2	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:801:SER:HB3	1:E:840:LYS:HZ3	1.67	0.59
1:F:796:SER:OG	2:G:222:ALA:O	2.20	0.59
1:F:809:LYS:HB2	1:F:844:LEU:HD11	1.84	0.59
1:E:632:ASP:CG	1:E:633:GLU:H	2.11	0.59
1:E:990:ASN:HA	1:F:994:LYS:HE3	1.85	0.59
1:E:1001:MET:O	1:E:1002:ASN:HB2	2.02	0.59
1:F:86:ARG:NH1	1:F:87:ILE:HA	2.17	0.59
2:G:13:PHE:N	2:G:22:VAL:O	2.36	0.59
2:H:62:THR:OG1	2:H:218:ILE:O	2.16	0.59
1:B:659:PHE:HB3	1:B:662:ASP:HA	1.83	0.59
1:E:281:ASP:O	1:E:285:ARG:NH2	2.36	0.59
1:E:526:ASP:CG	1:E:529:ASN:H	2.11	0.59
1:E:680:GLU:OE1	1:E:683:LYS:N	2.32	0.59
1:F:222:ASP:H	1:F:225:ILE:CG2	2.13	0.59
1:A:404:ASN:HA	2:C:4:VAL:O	2.02	0.59
1:E:629:ARG:HD2	1:E:630:ASP:O	2.03	0.59
1:F:170:VAL:HA	1:F:200:ILE:HD11	1.84	0.59
2:G:14:LYS:HA	2:G:20:LYS:HE3	1.84	0.59
1:E:978:HIS:O	1:E:982:GLU:HG2	2.02	0.59
1:F:891:THR:O	1:F:895:ASN:ND2	2.36	0.59
1:A:213:ILE:HB	1:A:243:PRO:HB3	1.84	0.59
1:A:548:ASN:CB	2:D:210:ASN:HD21	2.16	0.59
1:B:442:LEU:HB3	1:B:447:ARG:HH12	1.68	0.59
1:B:964:ASP:HB2	1:B:965:LYS:NZ	2.18	0.59
1:E:815:PHE:CG	1:E:815:PHE:O	2.56	0.59
1:F:81:SER:OG	1:F:82:ASP:N	2.35	0.59
2:H:60:ASN:HA	2:H:219:LYS:HZ3	1.68	0.59
1:A:275:ILE:HG23	1:A:285:ARG:HH12	1.66	0.58
1:F:962:TYR:CE2	1:F:999:ILE:HG21	2.38	0.58
1:A:610:GLN:HA	1:A:613:ARG:HB3	1.85	0.58
1:A:794:VAL:HA	2:D:225:ASP:HA	1.85	0.58
1:B:46:VAL:HG11	1:B:138:ILE:HG21	1.84	0.58
1:B:247:ARG:HE	1:B:248:THR:N	2.01	0.58
2:C:28:GLN:HB3	2:C:64:LYS:HD2	1.85	0.58
1:F:817:SER:HB3	1:F:821:SER:HB3	1.85	0.58
1:A:54:SER:OG	1:A:115:ASN:ND2	2.30	0.58
1:A:367:CYS:SG	1:A:370:ARG:NH2	2.77	0.58
1:A:449:GLU:HG3	1:A:507:PHE:HE1	1.69	0.58
1:B:118:HIS:O	1:B:122:LEU:HG	2.03	0.58
1:B:134:TYR:CG	1:B:183:VAL:HG11	2.38	0.58
1:F:836:ASP:OD1	1:F:836:ASP:N	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:254:GLU:O	1:B:257:THR:OG1	2.19	0.58
1:B:407:ILE:HG12	2:D:2:LYS:HB3	1.85	0.58
2:D:190:ASP:H	2:D:237:ALA:HB3	1.69	0.58
1:F:53:LEU:HB3	1:F:115:ASN:HD22	1.68	0.58
1:F:776:ASP:O	1:F:780:VAL:HG22	2.04	0.58
2:H:171:TYR:C	2:H:172:GLU:OE1	2.47	0.58
1:A:1000:LEU:HA	1:A:1004:PHE:HB2	1.85	0.58
1:E:242:LYS:HG3	1:E:267:ARG:HD3	1.85	0.58
1:F:311:TYR:O	1:F:315:LYS:HG2	2.03	0.58
1:F:706:VAL:O	1:F:710:THR:HG23	2.04	0.58
1:F:852:HIS:O	1:F:855:SER:OG	2.22	0.58
2:G:4:VAL:O	2:G:6:GLN:HG3	2.02	0.58
1:A:631:ILE:HD12	1:A:635:GLY:HA3	1.84	0.58
1:A:779:LEU:HD11	1:A:844:LEU:HD22	1.86	0.58
1:B:297:GLN:HE21	1:B:301:PHE:HZ	1.51	0.58
1:B:964:ASP:CG	1:B:966:LEU:HB2	2.28	0.58
1:E:396:MET:HE1	1:E:398:LYS:NZ	2.19	0.58
1:E:629:ARG:C	1:E:630:ASP:O	2.20	0.58
1:E:893:LYS:NZ	1:E:933:PHE:HA	2.19	0.58
1:F:812:GLU:OE1	1:F:813:LYS:N	2.34	0.58
1:A:606:HIS:O	1:A:609:HIS:CD2	2.57	0.58
1:E:549:GLN:HA	1:E:552:TYR:HD2	1.69	0.58
1:F:228:LEU:HA	1:F:231:TRP:HE3	1.67	0.58
1:E:32:GLU:OE1	1:E:267:ARG:NH2	2.36	0.58
1:F:548:ASN:HB3	2:G:209:GLU:OE2	2.02	0.58
2:D:175:TYR:HB2	2:D:193:ILE:HB	1.85	0.58
1:E:782:GLN:HA	1:E:785:LYS:HB2	1.86	0.58
1:A:141:ALA:HA	1:A:144:LYS:HZ2	1.69	0.57
1:A:783:ALA:HB1	1:A:838:LEU:HD12	1.86	0.57
2:C:69:ASP:OD1	2:C:69:ASP:N	2.37	0.57
1:E:48:ALA:O	1:E:51:SER:OG	2.22	0.57
1:E:277:SER:OG	1:E:284:GLU:OE2	2.16	0.57
1:E:279:GLU:HG2	1:E:280:TYR:H	1.68	0.57
1:E:661:ILE:HG13	1:E:665:LYS:HZ3	1.68	0.57
1:E:744:PHE:HB3	1:E:749:LEU:HD22	1.86	0.57
1:F:277:SER:OG	1:F:278:ASN:N	2.36	0.57
1:F:908:SER:CA	2:G:231:MET:HB3	2.27	0.57
1:A:26:VAL:O	1:A:30:ILE:HG22	2.03	0.57
1:A:148:TYR:HB3	1:B:532:PRO:HD3	1.85	0.57
1:B:131:THR:OG1	1:B:133:ASN:OD1	2.20	0.57
1:B:927:ASN:HB3	1:B:930:MET:HE1	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:403:LEU:H	2:H:6:GLN:HB2	1.68	0.57
1:F:737:VAL:HG21	1:F:771:ILE:HD12	1.86	0.57
1:F:822:GLU:HA	1:F:825:LEU:HG	1.85	0.57
1:F:869:ILE:HD12	1:F:874:ILE:N	2.19	0.57
1:A:29:CYS:O	1:A:33:ILE:HG12	2.04	0.57
1:B:325:ILE:HG21	1:B:330:LEU:HD13	1.85	0.57
1:B:479:TYR:CE2	1:B:524:ILE:HD13	2.39	0.57
1:E:691:ILE:HA	1:E:694:GLU:OE2	2.05	0.57
1:F:24:ASN:OD1	1:F:25:ASN:N	2.38	0.57
1:F:582:ILE:HA	1:F:585:LEU:HD23	1.86	0.57
1:F:875:ASP:OD2	2:G:49:PRO:HD2	2.04	0.57
1:A:780:VAL:HG22	1:A:820:LEU:HD22	1.85	0.57
2:D:32:PHE:HD1	2:D:61:LEU:HD13	1.70	0.57
1:E:126:PRO:O	1:E:165:ARG:NH2	2.37	0.57
1:E:927:ASN:HD21	1:E:929:LYS:HD3	1.69	0.57
1:F:419:ASP:OD1	1:F:420:VAL:N	2.38	0.57
2:G:36:ILE:HG23	2:G:54:LYS:HD2	1.86	0.57
1:A:450:GLU:OE1	1:A:450:GLU:N	2.38	0.57
1:B:105:LYS:HA	1:B:178:PHE:HD2	1.69	0.57
2:D:1:MET:HE2	2:D:1:MET:H1	1.69	0.57
1:E:186:LYS:HD2	1:E:188:ASP:H	1.69	0.57
1:E:242:LYS:HE2	1:E:242:LYS:HA	1.86	0.57
1:E:373:LEU:HD23	1:E:378:TYR:CD2	2.40	0.57
1:F:309:ILE:HA	1:F:312:ILE:HG12	1.87	0.57
1:B:187:GLU:HA	1:B:190:TYR:CD1	2.39	0.57
1:E:526:ASP:CG	1:E:528:PHE:H	2.11	0.57
1:F:652:PHE:CE2	1:F:726:VAL:HG11	2.40	0.57
1:A:498:LEU:HD11	2:D:23:PHE:HE1	1.70	0.57
1:B:179:LYS:HD3	1:B:179:LYS:N	2.19	0.57
1:B:259:ILE:O	1:B:263:ASN:ND2	2.38	0.57
1:B:576:PHE:CE1	1:B:641:LYS:HB2	2.39	0.57
1:B:593:ARG:HG3	1:B:597:GLU:HB3	1.86	0.57
2:D:41:LEU:HD11	2:D:54:LYS:HE2	1.85	0.57
1:F:472:TYR:HD1	1:F:473:LEU:HD12	1.70	0.57
1:A:290:MET:O	1:A:293:LEU:HG	2.05	0.57
1:B:312:ILE:O	1:B:316:ILE:HG22	2.04	0.57
1:E:32:GLU:OE2	1:E:267:ARG:NH1	2.35	0.57
1:F:801:SER:HB3	1:F:840:LYS:HZ1	1.69	0.57
1:A:86:ARG:HH12	1:A:89:GLN:HB3	1.68	0.57
1:A:192:ASN:OD1	1:A:196:ASN:ND2	2.36	0.57
1:A:497:LEU:HD21	2:D:73:LEU:HD12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:475:GLN:HA	1:E:478:ARG:HH12	1.70	0.57
1:E:762:THR:HG22	1:E:767:LEU:HD21	1.87	0.57
1:F:188:ASP:OD1	1:F:189:ASP:N	2.38	0.57
1:F:373:LEU:HB3	1:F:377:GLN:HB2	1.87	0.57
1:A:407:ILE:HB	2:C:2:LYS:NZ	2.19	0.57
1:A:717:LYS:HG3	1:A:757:TRP:CH2	2.40	0.57
1:F:627:ARG:HH21	1:F:675:LYS:NZ	2.02	0.57
1:F:753:LYS:HE2	1:F:757:TRP:NE1	2.20	0.57
1:F:768:PRO:HD2	1:F:771:ILE:HG12	1.86	0.57
1:A:663:ASP:HA	1:A:666:ASN:OD1	2.05	0.56
1:A:771:ILE:O	1:A:775:ILE:HD12	2.05	0.56
1:E:755:TYR:HE2	1:E:803:ASP:HB3	1.70	0.56
1:E:807:LEU:HD12	1:E:808:ILE:H	1.70	0.56
1:E:827:LEU:HB3	1:E:831:LYS:HD3	1.86	0.56
1:F:119:ASP:HB2	1:F:120:LYS:NZ	2.19	0.56
1:F:815:PHE:CZ	1:F:817:SER:HA	2.39	0.56
1:F:957:SER:HA	1:F:960:LYS:HB3	1.86	0.56
1:B:740:LEU:HD11	1:B:757:TRP:HE3	1.69	0.56
2:C:3:THR:OG1	2:C:5:ILE:HD11	2.05	0.56
2:C:224:ALA:HB2	2:C:231:MET:HE3	1.87	0.56
1:F:247:ARG:NH1	1:F:270:ASP:OD1	2.34	0.56
1:A:367:CYS:HA	1:A:370:ARG:HE	1.69	0.56
1:A:549:GLN:HA	1:A:552:TYR:CB	2.33	0.56
1:A:580:SER:CB	1:A:582:ILE:HG12	2.35	0.56
1:A:613:ARG:HD3	1:A:663:ASP:HB3	1.86	0.56
1:B:439:ALA:HB2	1:B:454:LEU:HD22	1.86	0.56
2:D:179:ALA:O	2:D:189:SER:OG	2.24	0.56
1:E:475:GLN:HA	1:E:478:ARG:NH1	2.20	0.56
1:E:551:LEU:HG	1:E:607:GLU:HG2	1.87	0.56
1:E:681:GLN:NE2	1:E:682:GLU:OE1	2.38	0.56
1:F:755:TYR:CE2	1:F:803:ASP:HB3	2.41	0.56
1:F:863:ASN:HD21	1:F:865:LEU:HB2	1.71	0.56
1:E:405:THR:O	2:G:1:MET:N	2.38	0.56
1:E:680:GLU:CD	1:E:683:LYS:H	2.12	0.56
1:B:412:LEU:HD21	1:B:420:VAL:HG23	1.86	0.56
1:B:685:GLU:OE1	1:B:731:GLU:HB2	2.06	0.56
1:B:740:LEU:HD22	1:B:758:LEU:HD21	1.87	0.56
1:E:216:ILE:HD13	1:E:246:ILE:HD13	1.86	0.56
1:E:729:SER:OG	1:E:732:GLY:N	2.37	0.56
1:F:390:LYS:C	1:F:391:ASN:O	2.36	0.56
1:A:500:PHE:HA	1:A:747:ARG:HG3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:475:GLN:HB3	1:B:527:LEU:HD11	1.88	0.56
1:E:174:PHE:HB3	1:E:178:PHE:CD1	2.41	0.56
1:F:559:PHE:O	1:F:562:THR:OG1	2.19	0.56
1:F:966:LEU:O	1:F:970:ILE:HG12	2.05	0.56
1:A:802:ARG:CB	1:A:840:LYS:HB3	2.36	0.56
1:E:89:GLN:HE21	1:E:187:GLU:HG3	1.71	0.56
1:F:75:LYS:NZ	1:F:83:GLU:HB3	2.20	0.56
1:F:592:LEU:O	1:F:596:TYR:HB2	2.06	0.56
1:F:822:GLU:OE1	1:F:822:GLU:N	2.34	0.56
1:A:491:GLN:O	1:A:496:GLY:N	2.38	0.56
1:A:800:TYR:HD1	2:D:226:THR:HG23	1.71	0.56
2:C:40:LYS:NZ	2:C:42:ARG:O	2.38	0.56
1:F:27:VAL:O	1:F:31:LYS:HG2	2.05	0.56
1:F:386:ASN:O	1:F:390:LYS:HB3	2.06	0.56
1:F:442:LEU:HD12	1:F:451:SER:HA	1.87	0.56
2:H:197:ASN:OD1	2:H:198:VAL:N	2.39	0.56
1:E:1000:LEU:HA	1:E:1004:PHE:CE2	2.40	0.56
1:F:532:PRO:O	1:F:536:GLN:NE2	2.29	0.56
1:F:722:PHE:HA	1:F:724:LYS:CE	2.35	0.56
1:A:70:LEU:HD21	1:A:91:PHE:HA	1.87	0.56
1:E:616:MET:SD	1:E:617:SER:N	2.79	0.56
1:F:47:GLY:N	1:F:216:ILE:O	2.38	0.56
1:F:242:LYS:HE3	1:F:267:ARG:HG2	1.88	0.56
2:H:68:PHE:HD1	2:H:70:LEU:H	1.53	0.56
1:A:580:SER:O	1:A:583:VAL:HB	2.07	0.55
1:A:768:PRO:O	1:A:772:ILE:N	2.33	0.55
1:F:189:ASP:O	1:F:193:TYR:N	2.39	0.55
1:E:807:LEU:HD12	1:E:808:ILE:N	2.21	0.55
1:F:727:LYS:HE3	1:F:765:ASN:HB3	1.88	0.55
1:A:56:TYR:HD1	1:A:57:PRO:HD2	1.72	0.55
1:E:452:TYR:HA	1:E:455:TYR:CD2	2.42	0.55
1:E:931:GLU:OE1	1:E:931:GLU:N	2.39	0.55
1:A:117:ILE:HA	1:A:120:LYS:HD2	1.88	0.55
1:A:817:SER:OG	1:A:844:LEU:O	2.18	0.55
1:B:407:ILE:HB	2:D:2:LYS:HG2	1.89	0.55
1:E:680:GLU:O	1:E:680:GLU:CD	2.50	0.55
1:F:610:GLN:OE1	1:F:613:ARG:NH2	2.39	0.55
1:A:327:LYS:HA	1:A:330:LEU:HG	1.88	0.55
1:A:752:GLY:HA2	1:A:799:LEU:HD13	1.87	0.55
1:E:53:LEU:HD11	1:E:286:TYR:CE2	2.41	0.55
1:F:741:LEU:HB3	1:F:778:PHE:CD2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:760:ARG:HA	1:F:763:LYS:HG3	1.87	0.55
1:F:906:THR:O	2:G:232:ALA:HB3	2.06	0.55
1:A:475:GLN:HA	1:A:478:ARG:NH1	2.22	0.55
1:B:659:PHE:HD2	1:B:662:ASP:HA	1.71	0.55
2:C:42:ARG:HD3	2:C:52:ILE:HD13	1.88	0.55
2:C:52:ILE:HD11	2:C:54:LYS:HG2	1.87	0.55
1:F:89:GLN:CD	1:F:187:GLU:HG2	2.31	0.55
1:F:189:ASP:OD1	1:F:190:TYR:N	2.39	0.55
1:F:620:ILE:HA	1:F:645:PHE:HE2	1.71	0.55
1:F:922:LEU:HA	1:F:969:LYS:HZ3	1.71	0.55
1:A:247:ARG:HB2	1:A:270:ASP:HA	1.89	0.55
1:B:135:ASP:O	1:B:169:LYS:NZ	2.40	0.55
1:B:721:TYR:OH	1:B:760:ARG:NH2	2.39	0.55
1:E:284:GLU:HG2	1:E:285:ARG:N	2.21	0.55
1:E:304:LYS:HD2	1:E:307:GLU:H	1.72	0.55
1:F:285:ARG:O	1:F:289:VAL:HG22	2.06	0.55
1:F:366:SER:OG	1:F:368:ASP:OD1	2.25	0.55
1:F:376:LYS:HZ1	1:F:380:ARG:CD	2.18	0.55
2:G:65:ASN:OD1	2:G:67:PHE:N	2.35	0.55
2:H:15:ARG:HD3	2:H:20:LYS:HD3	1.88	0.55
1:F:802:ARG:HB2	1:F:840:LYS:HA	1.89	0.55
1:F:904:ILE:HG22	2:G:235:ILE:H	1.70	0.55
1:A:70:LEU:HD23	1:A:95:LYS:HE3	1.89	0.55
1:A:316:ILE:HA	1:A:319:LEU:HD13	1.89	0.55
1:A:532:PRO:HB3	1:B:148:TYR:CZ	2.42	0.55
1:B:236:GLN:NE2	1:B:239:SER:O	2.40	0.55
1:B:282:TYR:H	1:B:285:ARG:CZ	2.20	0.55
1:B:481:ILE:O	1:B:485:ILE:HG13	2.07	0.55
2:C:175:TYR:N	2:C:193:ILE:O	2.40	0.55
1:E:145:ARG:O	1:E:145:ARG:NE	2.40	0.55
1:F:132:THR:HA	1:F:170:VAL:HG12	1.88	0.55
2:G:24:THR:HB	2:G:65:ASN:HD22	1.72	0.55
1:A:583:VAL:O	1:A:587:ARG:HG3	2.06	0.55
1:B:307:GLU:HA	1:B:310:ASP:HB2	1.89	0.55
1:B:434:ASP:O	1:B:438:LYS:HG3	2.06	0.55
1:E:396:MET:SD	1:E:398:LYS:HD2	2.47	0.55
1:F:228:LEU:O	1:F:228:LEU:CD1	2.55	0.55
1:A:116:PRO:HB2	1:A:120:LYS:HE3	1.89	0.54
1:A:454:LEU:O	1:A:458:ILE:HD12	2.06	0.54
1:A:750:ASP:OD2	1:A:751:ILE:HG22	2.06	0.54
1:B:581:ASP:CG	1:B:622:LYS:HD3	2.32	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:406:SER:OG	1:E:407:ILE:N	2.40	0.54
1:E:916:PHE:HA	1:E:919:TRP:CZ3	2.42	0.54
1:F:696:THR:O	1:F:700:SER:CB	2.54	0.54
1:A:59:TRP:HZ3	1:A:62:LEU:HD23	1.72	0.54
1:A:547:ASP:HB2	1:A:549:GLN:OE1	2.08	0.54
1:A:580:SER:HB2	1:A:582:ILE:CG2	2.36	0.54
1:A:580:SER:HB2	1:A:582:ILE:HG12	1.88	0.54
1:E:801:SER:H	1:E:840:LYS:HZ1	1.55	0.54
1:F:259:ILE:O	1:F:262:GLU:HG3	2.07	0.54
1:F:812:GLU:CD	1:F:813:LYS:H	2.14	0.54
1:F:862:ILE:HD13	1:F:862:ILE:H	1.72	0.54
1:A:152:ILE:HG23	1:A:157:ASP:HB2	1.89	0.54
1:A:270:ASP:O	1:A:273:SER:OG	2.24	0.54
1:A:535:PHE:HE1	1:A:542:LEU:HD23	1.72	0.54
1:B:304:LYS:HB3	1:B:307:GLU:HB2	1.88	0.54
1:E:690:GLY:O	1:E:694:GLU:HG3	2.07	0.54
1:F:278:ASN:O	1:F:285:ARG:NH2	2.40	0.54
1:F:291:ASP:HA	1:F:294:ILE:HD12	1.90	0.54
2:G:214:LEU:O	2:G:216:PRO:HD3	2.07	0.54
2:H:177:THR:O	2:H:191:ILE:N	2.30	0.54
1:F:225:ILE:HD12	1:F:229:LEU:HD21	1.90	0.54
1:F:294:ILE:HG22	1:F:295:GLU:H	1.73	0.54
1:F:424:PHE:O	1:F:438:LYS:NZ	2.38	0.54
2:G:205:GLU:O	2:G:206:MET:C	2.46	0.54
1:B:319:LEU:HB2	1:B:322:LEU:HD13	1.88	0.54
1:B:741:LEU:HD11	1:B:775:ILE:HG22	1.90	0.54
1:E:205:LYS:HD3	1:E:231:TRP:CH2	2.42	0.54
1:F:793:GLU:OE1	1:F:799:LEU:HB3	2.07	0.54
1:F:937:ASP:OD1	1:F:940:TYR:N	2.39	0.54
1:B:224:ASN:O	1:B:228:LEU:HG	2.07	0.54
1:B:990:ASN:HB3	1:B:992:ASN:HD22	1.72	0.54
1:F:44:PHE:HZ	1:F:124:MET:HG3	1.72	0.54
1:F:327:LYS:HD3	1:F:392:GLY:HA3	1.90	0.54
1:B:786:HIS:O	1:B:834:GLN:NE2	2.41	0.54
1:E:655:ILE:HG23	1:E:659:PHE:HE2	1.72	0.54
1:F:57:PRO:HA	1:F:61:ARG:NH2	2.22	0.54
1:A:95:LYS:HD3	1:A:95:LYS:N	2.23	0.54
1:A:223:TYR:HB3	1:A:225:ILE:HG13	1.90	0.54
1:E:500:PHE:HA	1:E:747:ARG:CZ	2.37	0.54
1:E:729:SER:N	1:E:732:GLY:HA3	2.23	0.54
1:F:931:GLU:H	1:F:931:GLU:CD	2.15	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:53:LEU:HD13	1:B:117:ILE:HG13	1.90	0.54
1:F:230:ASN:N	1:F:230:ASN:OD1	2.40	0.54
1:A:366:SER:O	1:A:370:ARG:NE	2.41	0.54
1:A:652:PHE:CZ	1:A:687:TYR:HB3	2.43	0.54
1:A:989:LYS:HD2	1:B:1001:MET:SD	2.48	0.54
1:B:768:PRO:HD2	1:B:771:ILE:HD13	1.90	0.54
1:B:974:LYS:HA	1:B:977:LYS:HD3	1.90	0.54
2:D:34:GLN:HA	2:D:59:ILE:HD13	1.90	0.54
1:E:918:ILE:HG23	2:H:51:TYR:CD2	2.42	0.54
1:F:118:HIS:NE2	1:F:138:ILE:HA	2.23	0.54
1:F:213:ILE:HB	1:F:243:PRO:HB3	1.89	0.54
1:F:311:TYR:CZ	1:F:315:LYS:HE2	2.43	0.54
1:B:494:GLY:O	1:B:496:GLY:N	2.41	0.53
1:F:615:SER:HA	1:F:618:LEU:HD13	1.90	0.53
1:F:651:ASP:HA	1:F:654:ASN:HD21	1.71	0.53
1:F:681:GLN:HA	1:F:684:ILE:HD11	1.91	0.53
1:F:861:ASN:OD1	1:F:862:ILE:HG12	2.08	0.53
1:A:751:ILE:HA	1:A:754:ARG:HG2	1.90	0.53
1:A:869:ILE:HG12	2:D:50:LEU:HD13	1.90	0.53
1:A:976:MET:SD	1:A:976:MET:N	2.81	0.53
2:C:39:GLU:HG2	2:C:40:LYS:H	1.74	0.53
1:E:312:ILE:HD11	1:E:356:TYR:CD2	2.43	0.53
1:E:579:SER:H	1:E:582:ILE:HD11	1.72	0.53
1:F:553:ASP:O	1:F:557:LYS:NZ	2.42	0.53
2:H:171:TYR:O	2:H:196:PRO:O	2.25	0.53
1:A:275:ILE:HG23	1:A:285:ARG:NH1	2.24	0.53
1:A:607:GLU:O	1:A:610:GLN:N	2.41	0.53
1:A:652:PHE:HZ	1:A:687:TYR:HB3	1.74	0.53
1:B:594:PHE:O	1:B:598:ASN:ND2	2.41	0.53
1:E:57:PRO:HB3	1:E:107:PHE:HE1	1.73	0.53
1:E:270:ASP:OD1	1:E:271:ALA:N	2.41	0.53
1:F:358:GLU:HA	1:F:361:PHE:CE1	2.43	0.53
1:F:479:TYR:O	1:F:483:GLN:NE2	2.41	0.53
1:F:509:ASP:OD1	1:F:510:GLU:N	2.42	0.53
1:A:99:ALA:O	1:A:103:ILE:HG13	2.08	0.53
1:A:303:THR:OG1	1:A:304:LYS:N	2.42	0.53
1:A:388:PHE:HA	1:A:391:ASN:ND2	2.23	0.53
1:A:582:ILE:HA	1:A:585:LEU:CD1	2.38	0.53
1:B:65:LYS:HE2	1:B:103:ILE:HG23	1.90	0.53
2:H:60:ASN:HA	2:H:219:LYS:NZ	2.22	0.53
1:A:550:PHE:O	1:A:551:LEU:C	2.45	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:695:ILE:O	1:A:698:GLN:HB2	2.08	0.53
1:B:231:TRP:O	1:B:235:LEU:HG	2.09	0.53
1:B:616:MET:HA	1:B:616:MET:HE3	1.91	0.53
1:E:326:ARG:HH21	1:E:594:PHE:HE2	1.56	0.53
1:F:187:GLU:HA	1:F:190:TYR:HD2	1.73	0.53
1:A:403:LEU:N	2:C:6:GLN:HE22	1.97	0.53
1:A:800:TYR:CD1	2:D:226:THR:HG23	2.43	0.53
1:B:491:GLN:HG3	2:C:206:MET:HE3	1.91	0.53
1:F:89:GLN:HA	1:F:186:LYS:HE2	1.89	0.53
1:F:720:LEU:HB2	1:F:757:TRP:HZ3	1.73	0.53
1:E:606:HIS:O	1:E:609:HIS:N	2.42	0.53
1:E:687:TYR:CZ	1:E:691:ILE:HD11	2.43	0.53
1:E:724:LYS:HZ2	1:E:764:CYS:HB2	1.73	0.53
1:F:41:LYS:HG2	1:F:211:HIS:CD2	2.39	0.53
1:F:965:LYS:C	1:F:967:LEU:N	2.61	0.53
1:A:41:LYS:O	1:A:212:THR:N	2.39	0.53
1:A:800:TYR:O	1:A:802:ARG:N	2.38	0.53
1:E:755:TYR:CD1	1:E:807:LEU:HD23	2.44	0.53
1:F:976:MET:HB3	1:F:979:HIS:CE1	2.44	0.53
1:E:595:LEU:HG	1:E:603:VAL:HG12	1.91	0.53
1:F:646:PHE:HD1	1:F:677:ARG:HB3	1.74	0.53
2:H:58:GLU:O	2:H:59:ILE:HD13	2.08	0.53
1:A:188:ASP:O	1:A:192:ASN:N	2.40	0.53
1:A:736:ILE:HG21	1:A:761:LEU:HD22	1.90	0.53
1:A:738:LYS:O	1:A:741:LEU:HD22	2.09	0.53
2:D:14:LYS:HG3	2:D:172:GLU:HB3	1.91	0.53
2:D:174:GLU:HG2	2:D:194:GLN:HB3	1.90	0.53
1:E:459:ILE:HD11	1:E:478:ARG:HH11	1.74	0.53
1:E:699:PHE:HD2	1:E:743:TYR:HB3	1.73	0.53
1:E:841:LEU:HD23	1:E:844:LEU:HD12	1.91	0.53
1:F:576:PHE:HB2	2:H:30:ALA:HB3	1.91	0.53
1:F:957:SER:CA	1:F:960:LYS:HB3	2.39	0.53
1:A:128:HIS:CE1	1:A:166:TYR:H	2.26	0.52
2:D:60:ASN:ND2	2:D:221:GLU:OE2	2.41	0.52
1:F:44:PHE:CZ	1:F:124:MET:HG3	2.44	0.52
2:H:71:GLU:O	2:H:72:TRP:HB2	2.08	0.52
1:A:403:LEU:H	2:C:6:GLN:NE2	1.96	0.52
1:B:631:ILE:HB	1:B:636:PHE:HD1	1.74	0.52
1:F:89:GLN:CD	1:F:89:GLN:H	2.17	0.52
1:F:627:ARG:NH2	1:F:675:LYS:HZ2	2.06	0.52
1:F:905:GLN:C	2:G:234:VAL:HB	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:15:ARG:HD2	2:H:72:TRP:HE1	1.74	0.52
1:A:583:VAL:O	1:A:584:VAL:C	2.49	0.52
1:B:38:ARG:HA	1:B:38:ARG:NE	2.25	0.52
1:E:99:ALA:O	1:E:103:ILE:HG12	2.10	0.52
1:E:324:TYR:HA	1:E:390:LYS:HZ3	1.74	0.52
1:E:455:TYR:HA	1:E:458:ILE:HG12	1.90	0.52
1:E:755:TYR:CZ	1:E:807:LEU:HB3	2.45	0.52
1:F:105:LYS:HA	1:F:178:PHE:HD2	1.73	0.52
1:F:422:LYS:O	1:F:425:ILE:HG22	2.09	0.52
2:G:197:ASN:HB2	2:G:230:GLU:CD	2.34	0.52
2:H:14:LYS:HZ1	2:H:21:LEU:HD13	1.75	0.52
2:H:21:LEU:HB3	2:H:69:ASP:OD2	2.09	0.52
1:B:282:TYR:H	1:B:285:ARG:NH2	2.07	0.52
1:E:245:PHE:O	1:E:269:ILE:N	2.41	0.52
1:F:960:LYS:HA	1:F:962:TYR:CE2	2.45	0.52
1:A:128:HIS:HE1	1:A:165:ARG:HA	1.75	0.52
1:B:105:LYS:HD2	1:B:178:PHE:CD2	2.44	0.52
1:B:205:LYS:NZ	1:B:232:VAL:HG22	2.25	0.52
1:B:577:GLY:HA2	2:D:5:ILE:HG22	1.90	0.52
2:C:16:LYS:HE3	2:C:172:GLU:HG2	1.91	0.52
1:E:79:TYR:HA	1:E:83:GLU:CD	2.35	0.52
1:E:201:SER:HA	1:E:204:MET:HG2	1.90	0.52
1:E:540:LYS:HG3	1:E:541:ILE:N	2.25	0.52
1:F:733:LEU:HD12	1:F:771:ILE:HD11	1.91	0.52
1:F:801:SER:H	1:F:840:LYS:NZ	2.06	0.52
1:A:205:LYS:HB2	1:B:202:ASN:HD21	1.75	0.52
1:A:548:ASN:HA	1:A:550:PHE:CE1	2.44	0.52
1:A:779:LEU:HD13	1:A:841:LEU:HD22	1.90	0.52
1:B:842:LEU:HG	1:B:843:PRO:HD3	1.91	0.52
2:C:13:PHE:HZ	2:C:63:VAL:HG21	1.73	0.52
1:F:386:ASN:O	1:F:390:LYS:CB	2.57	0.52
1:F:646:PHE:CD1	1:F:677:ARG:HB3	2.45	0.52
1:A:469:CYS:HB2	1:A:539:TYR:CE2	2.45	0.52
1:A:606:HIS:O	1:A:609:HIS:HD2	1.92	0.52
1:B:134:TYR:CE2	1:B:183:VAL:CG1	2.67	0.52
1:B:640:GLY:O	1:B:641:LYS:CG	2.58	0.52
1:E:967:LEU:HD13	1:E:1003:TYR:HE2	1.75	0.52
1:A:488:ALA:HA	1:A:491:GLN:HE22	1.73	0.52
1:A:893:LYS:HD2	1:A:933:PHE:HE1	1.75	0.52
1:B:274:LEU:HD13	1:B:292:LEU:HG	1.91	0.52
1:B:573:SER:HA	2:D:31:SER:HA	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:50:LEU:HD23	2:D:51:TYR:H	1.75	0.52
1:E:533:PHE:O	1:E:537:LYS:HG2	2.09	0.52
1:E:657:ARG:HB3	1:E:658:HIS:ND1	2.25	0.52
1:B:475:GLN:HG3	1:B:478:ARG:HH12	1.75	0.52
1:E:26:VAL:O	1:E:30:ILE:HG12	2.09	0.52
1:E:376:LYS:HD2	1:E:380:ARG:HE	1.75	0.52
1:E:564:LYS:O	1:E:567:SER:OG	2.27	0.52
1:E:692:ALA:HB2	1:E:736:ILE:HG22	1.91	0.52
1:E:735:LYS:HA	1:E:738:LYS:HZ3	1.75	0.52
1:E:779:LEU:O	1:E:782:GLN:HG3	2.10	0.52
1:F:598:ASN:CG	1:F:600:LEU:HD13	2.34	0.52
1:F:896:TYR:HB2	1:F:933:PHE:HE1	1.75	0.52
1:F:906:THR:CG2	2:G:233:VAL:HA	2.40	0.52
1:A:548:ASN:HD22	2:D:209:GLU:HB2	1.74	0.52
1:E:610:GLN:HB3	1:E:613:ARG:NH2	2.25	0.52
1:A:751:ILE:HG23	1:A:799:LEU:CD2	2.40	0.51
1:B:322:LEU:H	1:B:322:LEU:HD12	1.75	0.51
2:C:34:GLN:HG2	2:C:57:LYS:HZ1	1.75	0.51
2:D:10:ASP:HA	2:D:26:GLU:HA	1.91	0.51
1:E:66:TYR:O	1:E:70:LEU:HD12	2.09	0.51
1:E:629:ARG:NH1	1:E:631:ILE:HD12	2.25	0.51
1:F:741:LEU:HB3	1:F:778:PHE:HD2	1.75	0.51
1:A:585:LEU:O	1:A:588:LEU:HB2	2.10	0.51
1:A:625:TYR:HA	1:B:992:ASN:ND2	2.25	0.51
1:B:531:MET:HE3	1:B:535:PHE:HB3	1.92	0.51
2:D:225:ASP:H	2:D:230:GLU:HG3	1.75	0.51
1:E:815:PHE:HZ	1:E:844:LEU:HB3	1.75	0.51
1:F:921:PHE:HE2	1:F:970:ILE:HA	1.74	0.51
1:A:357:MET:SD	1:A:358:GLU:N	2.84	0.51
1:A:443:ALA:O	1:A:448:TRP:NE1	2.39	0.51
1:A:549:GLN:C	1:A:552:TYR:HB2	2.34	0.51
1:B:472:TYR:CE1	1:B:476:ILE:HD11	2.46	0.51
1:E:398:LYS:HD2	1:E:398:LYS:H	1.76	0.51
1:E:411:SER:O	1:E:415:HIS:ND1	2.41	0.51
1:E:479:TYR:CD2	1:E:524:ILE:HG12	2.44	0.51
1:F:201:SER:O	1:F:204:MET:HE3	2.10	0.51
2:H:35:ALA:HB3	2:H:58:GLU:HB3	1.91	0.51
1:A:549:GLN:HG3	1:B:549:GLN:HE22	1.76	0.51
1:B:48:ALA:HA	1:B:133:ASN:HD22	1.74	0.51
1:B:135:ASP:HA	1:B:174:PHE:HE2	1.74	0.51
1:B:472:TYR:HA	1:B:475:GLN:HE21	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:612:ILE:HG22	1:B:659:PHE:HE1	1.76	0.51
2:D:1:MET:N	2:D:1:MET:HE2	2.25	0.51
1:E:770:SER:O	1:E:773:SER:OG	2.26	0.51
1:A:601:TRP:O	1:A:604:SER:OG	2.28	0.51
1:E:403:LEU:O	2:G:6:GLN:NE2	2.44	0.51
1:E:456:SER:O	1:E:460:LEU:HD23	2.10	0.51
1:E:556:VAL:HG11	1:F:552:TYR:HE2	1.74	0.51
1:E:633:GLU:C	1:E:635:GLY:N	2.65	0.51
1:F:331:LYS:NZ	1:F:337:ASP:H	2.08	0.51
1:F:438:LYS:O	1:F:442:LEU:HG	2.11	0.51
1:F:657:ARG:HA	1:F:715:GLU:CD	2.35	0.51
1:F:861:ASN:C	1:F:863:ASN:N	2.68	0.51
2:G:72:TRP:O	2:G:76:THR:CB	2.57	0.51
1:A:117:ILE:HG13	1:A:120:LYS:HZ3	1.75	0.51
1:A:528:PHE:CE2	1:A:542:LEU:O	2.62	0.51
1:B:64:ASP:O	1:B:68:GLU:HG2	2.10	0.51
1:B:66:TYR:CE1	1:B:103:ILE:HG21	2.46	0.51
1:B:802:ARG:HB3	1:B:840:LYS:HB3	1.93	0.51
1:B:985:LYS:HA	1:B:988:VAL:HG22	1.92	0.51
1:F:202:ASN:HA	1:F:205:LYS:HZ2	1.75	0.51
1:A:250:PRO:HB3	1:A:279:GLU:HA	1.91	0.51
1:A:620:ILE:HG13	1:A:667:LEU:HD21	1.93	0.51
1:A:986:GLU:OE2	1:A:990:ASN:ND2	2.42	0.51
1:B:614:ASN:O	1:B:618:LEU:HD22	2.11	0.51
1:E:202:ASN:CG	1:F:205:LYS:HE2	2.36	0.51
1:B:90:ILE:HG12	1:F:260:TYR:CD2	2.45	0.51
1:B:919:TRP:HZ3	2:C:50:LEU:HG	1.75	0.51
1:E:155:GLU:HG2	1:E:197:TYR:HD1	1.75	0.51
1:E:396:MET:HE1	1:E:398:LYS:HZ2	1.74	0.51
1:F:242:LYS:HG2	1:F:267:ARG:CZ	2.40	0.51
1:F:457:ASN:O	1:F:460:LEU:HG	2.11	0.51
1:F:610:GLN:HA	1:F:613:ARG:NH2	2.26	0.51
1:A:241:HIS:NE2	1:B:159:ALA:HB1	2.26	0.51
1:A:803:ASP:OD1	1:A:803:ASP:N	2.41	0.51
1:B:255:ASN:HA	1:B:258:LEU:HG	1.93	0.51
1:E:174:PHE:HB3	1:E:178:PHE:CE1	2.46	0.51
1:E:333:VAL:HG23	1:E:541:ILE:HG13	1.92	0.51
1:E:422:LYS:HE2	1:E:422:LYS:HA	1.93	0.51
1:E:436:TYR:OH	1:E:599:CYS:O	2.29	0.51
1:E:834:GLN:O	1:E:838:LEU:N	2.40	0.51
1:F:129:VAL:HB	1:F:167:LEU:HG	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:254:GLU:O	1:F:257:THR:OG1	2.27	0.51
1:F:477:ASN:O	1:F:481:ILE:HG22	2.10	0.51
2:G:189:SER:CB	2:G:238:SER:HB3	2.40	0.51
1:A:436:TYR:OH	1:A:598:ASN:O	2.18	0.51
1:A:459:ILE:HG13	1:A:471:TYR:CE2	2.46	0.51
1:B:491:GLN:O	1:B:495:LEU:HB2	2.10	0.51
2:D:176:ARG:NH1	2:D:178:ILE:HG13	2.26	0.51
1:E:487:GLN:HE22	2:H:207:SER:N	2.06	0.51
1:E:497:LEU:HB3	1:E:503:HIS:ND1	2.25	0.51
1:F:66:TYR:HB3	1:F:87:ILE:HG12	1.93	0.51
1:F:98:MET:HA	1:F:98:MET:HE3	1.93	0.51
2:H:23:PHE:O	2:H:69:ASP:HB2	2.11	0.51
1:A:337:ASP:O	1:A:350:LYS:N	2.39	0.50
1:A:449:GLU:N	1:A:449:GLU:OE1	2.44	0.50
1:A:606:HIS:NE2	2:D:206:MET:HB3	2.25	0.50
1:A:767:LEU:N	1:A:768:PRO:HD3	2.26	0.50
1:B:115:ASN:OD1	1:B:118:HIS:NE2	2.45	0.50
1:B:203:LEU:O	1:B:207:ILE:HG22	2.11	0.50
1:B:469:CYS:HB3	1:B:539:TYR:CZ	2.46	0.50
1:E:128:HIS:HD1	1:E:166:TYR:H	1.59	0.50
1:E:475:GLN:CD	1:E:478:ARG:HH22	2.18	0.50
1:E:780:VAL:HG21	1:E:819:ARG:HH12	1.76	0.50
1:E:866:MET:HE2	1:E:866:MET:N	2.27	0.50
1:F:396:MET:SD	1:F:397:ALA:N	2.85	0.50
1:F:906:THR:HG22	2:G:234:VAL:H	1.76	0.50
2:H:175:TYR:HB2	2:H:193:ILE:HB	1.93	0.50
2:H:219:LYS:HD2	2:H:220:PHE:N	2.26	0.50
1:A:118:HIS:HE1	1:A:137:LEU:C	2.20	0.50
1:A:332:HIS:CE1	1:A:540:LYS:HD2	2.46	0.50
1:A:593:ARG:O	1:A:597:GLU:HG3	2.11	0.50
1:B:720:LEU:HD13	1:B:740:LEU:HD12	1.92	0.50
1:F:712:PHE:O	1:F:713:ILE:C	2.50	0.50
1:F:720:LEU:HD22	1:F:736:ILE:HD13	1.93	0.50
1:F:905:GLN:H	2:G:234:VAL:HG12	1.76	0.50
1:B:475:GLN:HG3	1:B:478:ARG:NH1	2.27	0.50
1:B:491:GLN:NE2	2:C:206:MET:HG2	2.26	0.50
1:E:162:THR:O	1:F:533:PHE:HE2	1.95	0.50
1:E:339:HIS:N	1:E:347:VAL:O	2.34	0.50
1:E:946:PRO:HG2	1:E:975:HIS:NE2	2.27	0.50
2:G:13:PHE:HD1	2:G:173:VAL:HG22	1.76	0.50
1:A:750:ASP:CG	1:A:751:ILE:H	2.19	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:326:ARG:HG2	1:E:329:ASP:OD2	2.11	0.50
1:E:479:TYR:CZ	1:E:524:ILE:HG21	2.47	0.50
1:F:30:ILE:HD11	1:F:292:LEU:HD11	1.92	0.50
1:A:840:LYS:HA	1:A:871:ILE:HG21	1.93	0.50
1:B:277:SER:HB2	1:B:281:ASP:OD2	2.11	0.50
1:E:205:LYS:NZ	1:F:199:LEU:HD23	2.26	0.50
1:E:635:GLY:HA2	1:E:638:PHE:CE2	2.46	0.50
1:F:71:TYR:HE1	1:F:86:ARG:HH21	1.58	0.50
1:F:101:ASP:HA	1:F:104:LEU:HG	1.93	0.50
1:A:692:ALA:O	1:A:695:ILE:HG12	2.12	0.50
1:B:23:ASP:O	1:B:27:VAL:HG12	2.12	0.50
1:B:135:ASP:HA	1:B:174:PHE:CE2	2.47	0.50
1:F:109:GLN:OE1	1:F:109:GLN:N	2.36	0.50
1:F:692:ALA:O	1:F:696:THR:HG23	2.11	0.50
2:H:64:LYS:HA	2:H:217:GLU:HA	1.92	0.50
1:E:633:GLU:C	1:E:635:GLY:H	2.18	0.50
1:E:634:LEU:HG	1:F:905:GLN:OE1	2.12	0.50
1:F:472:TYR:HB2	1:F:535:PHE:CE2	2.46	0.50
1:F:724:LYS:HG2	1:F:760:ARG:HG3	1.94	0.50
1:F:861:ASN:CG	1:F:863:ASN:H	2.20	0.50
2:G:188:TYR:O	2:G:238:SER:HA	2.11	0.50
1:A:566:ARG:HA	1:A:569:MET:HG3	1.93	0.50
1:A:885:ILE:HG12	1:A:916:PHE:HE1	1.77	0.50
1:B:59:TRP:HE3	1:B:62:LEU:HD12	1.77	0.50
1:E:59:TRP:CD1	1:E:62:LEU:HD23	2.46	0.50
1:E:148:TYR:CE2	1:E:163:SER:HB3	2.47	0.50
1:E:154:ALA:N	1:E:157:ASP:OD2	2.24	0.50
1:E:227:MET:O	1:E:227:MET:HE3	2.11	0.50
1:E:576:PHE:HB2	2:G:30:ALA:HB3	1.94	0.50
1:F:905:GLN:H	2:G:234:VAL:CG1	2.24	0.50
1:A:86:ARG:HH22	1:A:90:ILE:HD11	1.77	0.50
1:A:215:PHE:CE1	1:A:243:PRO:HB2	2.47	0.50
1:A:487:GLN:O	1:A:491:GLN:NE2	2.44	0.50
1:A:501:GLY:HA3	1:A:747:ARG:NH2	2.27	0.50
1:A:717:LYS:HZ2	1:A:749:LEU:HB3	1.76	0.50
1:B:607:GLU:HG3	1:B:608:PHE:HD1	1.77	0.50
1:F:649:TYR:HE1	1:F:687:TYR:HB2	1.77	0.50
1:F:930:MET:HE3	1:F:930:MET:H	1.77	0.50
1:B:44:PHE:CE2	1:B:126:PRO:HB3	2.47	0.49
1:B:472:TYR:O	1:B:476:ILE:HG12	2.12	0.49
1:B:557:LYS:HG3	1:B:587:ARG:HH12	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:729:SER:HB3	1:B:731:GLU:OE1	2.12	0.49
1:E:482:TYR:C	1:E:482:TYR:CD1	2.90	0.49
1:E:635:GLY:O	1:E:638:PHE:N	2.45	0.49
1:A:332:HIS:NE2	1:A:540:LYS:HB3	2.27	0.49
1:B:286:TYR:HA	1:B:289:VAL:HG12	1.93	0.49
1:B:661:ILE:HG13	1:B:663:ASP:N	2.23	0.49
1:E:417:LYS:HD3	1:E:420:VAL:HG22	1.95	0.49
1:F:128:HIS:CE1	1:F:165:ARG:HA	2.48	0.49
1:F:967:LEU:HA	1:F:970:ILE:HB	1.94	0.49
1:A:566:ARG:O	1:A:569:MET:HG3	2.12	0.49
1:B:94:VAL:HG21	1:F:256:GLU:HB2	1.93	0.49
1:E:569:MET:HE2	1:E:569:MET:HA	1.95	0.49
1:E:850:LYS:O	1:E:854:LEU:HG	2.11	0.49
1:F:130:ILE:HD12	1:F:168:LEU:O	2.12	0.49
1:F:409:ILE:HG13	1:F:650:TYR:CZ	2.46	0.49
1:F:738:LYS:O	1:F:742:PHE:HB2	2.12	0.49
1:F:801:SER:O	1:F:840:LYS:CE	2.55	0.49
1:F:831:LYS:HB3	1:F:833:LYS:HG2	1.93	0.49
2:G:198:VAL:HG22	2:G:222:ALA:HA	1.93	0.49
1:A:713:ILE:CG2	1:A:717:LYS:H	2.26	0.49
1:B:688:LEU:HD23	1:B:732:GLY:CA	2.42	0.49
1:E:744:PHE:HD1	1:E:745:PRO:HD2	1.77	0.49
1:E:815:PHE:HE2	1:E:844:LEU:HA	1.77	0.49
1:E:936:MET:SD	1:E:936:MET:N	2.77	0.49
1:E:1004:PHE:HB2	1:E:1005:ILE:HD12	1.93	0.49
1:F:696:THR:O	1:F:700:SER:HB3	2.11	0.49
1:F:768:PRO:O	1:F:772:ILE:HG12	2.12	0.49
1:F:987:ARG:HA	1:F:987:ARG:NE	2.27	0.49
2:G:28:GLN:HB3	2:G:64:LYS:CD	2.38	0.49
1:B:134:TYR:CE2	1:B:171:ALA:HB1	2.48	0.49
1:E:488:ALA:HA	1:E:491:GLN:NE2	2.27	0.49
1:E:786:HIS:CD2	1:E:791:TYR:HB3	2.47	0.49
1:F:56:TYR:CD1	1:F:57:PRO:HD2	2.47	0.49
1:F:331:LYS:HD2	1:F:336:TYR:HA	1.93	0.49
1:F:533:PHE:O	1:F:537:LYS:HE2	2.13	0.49
2:H:14:LYS:NZ	2:H:21:LEU:HA	2.27	0.49
1:B:558:LEU:HD11	1:B:614:ASN:HB2	1.95	0.49
1:F:376:LYS:NZ	1:F:379:GLU:OE2	2.41	0.49
1:F:418:TYR:O	1:F:421:MET:HG3	2.12	0.49
2:H:229:ASP:O	2:H:230:GLU:HB2	2.11	0.49
1:A:472:TYR:O	1:A:476:ILE:HG22	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:990:ASN:HB3	1:B:992:ASN:ND2	2.28	0.49
2:C:10:ASP:HB2	2:C:176:ARG:HB3	1.94	0.49
2:C:70:LEU:HD13	2:C:74:ALA:HB2	1.95	0.49
1:E:547:ASP:OD1	1:E:547:ASP:N	2.41	0.49
1:F:246:ILE:HG22	1:F:247:ARG:H	1.77	0.49
1:F:404:ASN:HA	2:H:4:VAL:O	2.13	0.49
1:F:769:LYS:HD2	1:F:769:LYS:O	2.12	0.49
2:H:192:TYR:HD2	2:H:235:ILE:HB	1.78	0.49
1:A:313:TYR:HA	1:A:380:ARG:HH21	1.77	0.49
1:A:614:ASN:O	1:A:618:LEU:HB2	2.12	0.49
1:A:839:PHE:HA	1:A:853:LEU:HD21	1.94	0.49
1:B:639:PHE:C	1:B:641:LYS:H	2.21	0.49
1:B:649:TYR:CD1	1:B:684:ILE:HG12	2.48	0.49
2:C:69:ASP:HB2	2:C:72:TRP:CD1	2.48	0.49
2:D:41:LEU:HD12	2:D:42:ARG:HG3	1.95	0.49
1:E:406:SER:HB2	2:G:2:LYS:HB2	1.95	0.49
1:F:388:PHE:CD1	1:F:393:VAL:HG13	2.47	0.49
2:H:228:THR:HG22	2:H:229:ASP:CG	2.38	0.49
1:A:516:GLU:O	1:A:519:MET:HE3	2.13	0.49
1:B:453:ASP:O	1:B:456:SER:OG	2.19	0.49
1:E:89:GLN:HE22	1:E:188:ASP:H	1.60	0.49
1:E:706:VAL:CA	1:E:709:TYR:HB3	2.42	0.49
1:E:832:GLN:HA	1:E:835:ILE:HG12	1.94	0.49
1:A:408:GLU:HA	1:A:650:TYR:OH	2.13	0.49
1:A:607:GLU:OE1	1:A:610:GLN:HG2	2.12	0.49
1:B:299:ASN:OD1	1:B:299:ASN:N	2.42	0.49
1:B:631:ILE:HG21	1:B:636:PHE:HB3	1.95	0.49
2:D:208:LEU:HD11	2:D:212:ASN:HB3	1.95	0.49
1:E:286:TYR:O	1:E:290:MET:HG2	2.13	0.49
1:E:349:HIS:HE1	2:G:213:ALA:HA	1.77	0.49
1:E:396:MET:SD	1:E:398:LYS:N	2.85	0.49
1:E:803:ASP:HA	1:E:806:ALA:HB3	1.94	0.49
1:F:639:PHE:O	1:F:641:LYS:N	2.42	0.49
1:F:955:ILE:HG21	1:F:958:TRP:CE2	2.47	0.49
2:H:69:ASP:O	2:H:70:LEU:HB2	2.12	0.49
1:A:180:GLY:HA2	1:A:183:VAL:HG12	1.95	0.48
1:A:218:TYR:OH	1:A:224:ASN:N	2.34	0.48
1:A:357:MET:H	1:A:357:MET:CE	2.21	0.48
1:A:655:ILE:HD12	1:A:659:PHE:CZ	2.47	0.48
1:A:751:ILE:O	1:A:752:GLY:C	2.53	0.48
1:A:899:GLU:O	1:A:903:GLY:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:551:LEU:HD11	1:E:608:PHE:HD1	1.78	0.48
1:E:705:ASN:O	1:E:708:PHE:N	2.45	0.48
1:F:821:SER:O	1:F:824:THR:OG1	2.27	0.48
1:A:433:GLU:O	1:A:437:LYS:HG2	2.13	0.48
1:B:231:TRP:HA	1:B:234:LYS:HD3	1.95	0.48
2:C:171:TYR:O	2:C:198:VAL:O	2.30	0.48
1:E:190:TYR:HA	1:E:193:TYR:HB2	1.94	0.48
1:E:629:ARG:CG	1:E:630:ASP:O	2.61	0.48
1:E:750:ASP:O	1:E:753:LYS:HG2	2.13	0.48
1:E:906:THR:HG22	2:H:233:VAL:HG13	1.94	0.48
2:G:14:LYS:CA	2:G:20:LYS:HE3	2.43	0.48
2:G:190:ASP:H	2:G:237:ALA:HB3	1.78	0.48
1:A:43:VAL:HG13	1:A:213:ILE:HD13	1.95	0.48
1:A:310:ASP:HA	1:A:313:TYR:HB3	1.94	0.48
1:A:615:SER:HA	1:A:618:LEU:HB2	1.96	0.48
1:B:44:PHE:CD2	1:B:126:PRO:HB3	2.49	0.48
1:B:553:ASP:OD1	1:B:553:ASP:N	2.47	0.48
1:F:724:LYS:HD2	1:F:725:TYR:CD1	2.48	0.48
2:G:192:TYR:HD2	2:G:235:ILE:HG21	1.78	0.48
2:H:16:LYS:HE2	2:H:170:ARG:HH21	1.78	0.48
1:A:277:SER:HB3	1:A:285:ARG:NH2	2.28	0.48
1:A:419:ASP:N	1:A:419:ASP:OD1	2.45	0.48
1:B:242:LYS:HB2	1:B:267:ARG:NH2	2.28	0.48
1:E:1000:LEU:HA	1:E:1004:PHE:HE2	1.79	0.48
1:F:449:GLU:HG3	1:F:450:GLU:OE1	2.13	0.48
1:F:579:SER:HB3	1:F:582:ILE:HG12	1.94	0.48
1:A:163:SER:HA	1:B:533:PHE:CE1	2.48	0.48
1:A:204:MET:HE1	1:A:228:LEU:HD13	1.94	0.48
1:A:205:LYS:CB	1:B:202:ASN:HD21	2.27	0.48
1:A:444:CYS:HA	1:A:601:TRP:HZ3	1.77	0.48
1:A:456:SER:HA	1:A:459:ILE:HG22	1.96	0.48
1:A:693:GLU:O	1:A:696:THR:OG1	2.24	0.48
1:B:111:ASP:OD1	1:B:111:ASP:N	2.46	0.48
1:B:129:VAL:HB	1:B:167:LEU:HD13	1.95	0.48
1:B:632:ASP:OD1	1:B:632:ASP:N	2.40	0.48
1:E:481:ILE:O	1:E:484:SER:OG	2.21	0.48
1:E:630:ASP:HB3	1:F:956:PRO:HG3	1.95	0.48
1:A:733:LEU:O	1:A:736:ILE:HG22	2.13	0.48
1:A:787:ILE:HG22	1:A:788:ASP:H	1.78	0.48
1:E:163:SER:HA	1:F:533:PHE:CE2	2.49	0.48
1:E:767:LEU:HD12	1:E:811:PHE:HD2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:79:TYR:HB3	1:F:84:TYR:CG	2.48	0.48
1:F:188:ASP:O	1:F:192:ASN:N	2.47	0.48
1:F:744:PHE:HB3	1:F:749:LEU:HD23	1.95	0.48
2:G:14:LYS:HG2	2:G:172:GLU:O	2.13	0.48
1:A:131:THR:HG22	1:A:133:ASN:H	1.79	0.48
1:A:512:LEU:HD13	1:A:515:ILE:HD11	1.95	0.48
1:A:688:LEU:O	1:A:691:ILE:HG13	2.14	0.48
1:E:186:LYS:HE3	1:E:186:LYS:HB3	1.67	0.48
1:E:254:GLU:H	1:E:254:GLU:CD	2.21	0.48
1:E:458:ILE:O	1:E:462:SER:OG	2.24	0.48
1:E:544:PHE:CE2	1:E:550:PHE:HB2	2.48	0.48
1:E:729:SER:O	1:E:733:LEU:N	2.36	0.48
1:F:657:ARG:HG2	1:F:715:GLU:CD	2.39	0.48
1:F:913:MET:H	1:F:913:MET:CE	2.24	0.48
1:F:982:GLU:O	1:F:985:LYS:HB2	2.13	0.48
1:A:86:ARG:NH2	1:E:260:TYR:CZ	2.82	0.48
1:A:131:THR:HB	1:A:169:LYS:HA	1.96	0.48
1:A:481:ILE:O	1:A:484:SER:OG	2.25	0.48
1:A:548:ASN:HD22	2:D:209:GLU:CB	2.26	0.48
1:B:130:ILE:HD11	1:B:170:VAL:HG22	1.95	0.48
2:D:206:MET:N	2:D:206:MET:SD	2.86	0.48
1:E:334:PHE:O	1:E:335:GLU:HG3	2.14	0.48
1:E:428:GLN:NE2	1:E:429:SER:O	2.46	0.48
1:E:493:ASN:HA	1:E:503:HIS:CE1	2.44	0.48
1:E:839:PHE:HA	1:E:842:LEU:HB2	1.95	0.48
1:F:331:LYS:O	1:F:331:LYS:HD3	2.14	0.48
1:F:511:PHE:O	1:F:515:ILE:HG12	2.14	0.48
2:H:20:LYS:HE2	2:H:71:GLU:OE2	2.13	0.48
2:H:172:GLU:HB3	2:H:196:PRO:O	2.14	0.48
1:B:688:LEU:HD23	1:B:732:GLY:HA2	1.96	0.48
1:F:848:ASN:O	1:F:852:HIS:ND1	2.45	0.48
1:F:957:SER:O	1:F:959:LEU:N	2.47	0.48
1:B:28:GLU:O	1:B:32:GLU:HG2	2.13	0.48
1:B:66:TYR:HE1	1:B:103:ILE:HG21	1.77	0.48
1:B:249:ASP:OD2	1:B:251:SER:OG	2.24	0.48
1:B:417:LYS:C	1:B:421:MET:HE3	2.38	0.48
1:B:588:LEU:HD12	1:B:588:LEU:HA	1.58	0.48
1:B:616:MET:HB2	1:B:659:PHE:HZ	1.79	0.48
1:E:326:ARG:HD2	1:E:328:ILE:HD11	1.96	0.48
1:E:330:LEU:HB3	1:E:340:PHE:HE2	1.79	0.48
1:E:791:TYR:O	1:E:833:LYS:NZ	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:966:LEU:HD12	2:G:51:TYR:HB3	1.96	0.48
1:A:46:VAL:HG12	1:A:130:ILE:O	2.14	0.47
1:A:904:ILE:HG12	2:D:235:ILE:HG23	1.96	0.47
1:B:222:ASP:OD1	1:B:225:ILE:HG23	2.14	0.47
1:B:245:PHE:O	1:B:269:ILE:HD12	2.13	0.47
1:B:522:PHE:CD1	1:B:522:PHE:C	2.92	0.47
1:B:675:LYS:HD3	1:B:675:LYS:HA	1.36	0.47
1:B:741:LEU:HD22	1:B:778:PHE:CG	2.49	0.47
1:B:982:GLU:O	1:B:985:LYS:HG3	2.13	0.47
1:E:711:GLN:O	1:E:712:PHE:HD1	1.96	0.47
1:E:1002:ASN:O	1:E:1003:TYR:C	2.57	0.47
1:F:336:TYR:O	1:F:350:LYS:HE2	2.14	0.47
1:F:820:LEU:HA	1:F:823:ILE:HG12	1.96	0.47
2:G:38:GLU:CA	2:G:54:LYS:HZ1	2.27	0.47
2:H:23:PHE:HE1	2:H:66:ALA:CB	2.23	0.47
2:H:52:ILE:HG13	2:H:53:LEU:H	1.79	0.47
1:A:370:ARG:HD3	1:A:381:PHE:CZ	2.49	0.47
1:B:83:GLU:HA	1:B:86:ARG:HG2	1.96	0.47
1:B:114:THR:HB	1:B:118:HIS:HD2	1.79	0.47
1:B:377:GLN:O	1:B:380:ARG:HG2	2.14	0.47
1:B:626:GLU:HA	1:B:629:ARG:NE	2.27	0.47
1:E:59:TRP:CZ2	1:E:185:LEU:HG	2.49	0.47
1:F:134:TYR:CZ	1:F:183:VAL:HB	2.49	0.47
1:F:284:GLU:O	1:F:287:SER:OG	2.29	0.47
1:F:290:MET:O	1:F:294:ILE:HG13	2.13	0.47
1:F:906:THR:HB	2:G:233:VAL:CA	2.44	0.47
2:H:10:ASP:OD2	2:H:12:TYR:OH	2.30	0.47
1:A:206:THR:HG22	1:B:203:LEU:HD22	1.96	0.47
1:A:270:ASP:HB3	1:A:273:SER:HB3	1.95	0.47
1:A:736:ILE:HG21	1:A:761:LEU:CD2	2.44	0.47
1:A:862:ILE:HD12	1:A:866:MET:HE3	1.96	0.47
1:B:257:THR:O	1:B:261:TYR:HD1	1.97	0.47
1:E:655:ILE:HG23	1:E:659:PHE:CE2	2.49	0.47
1:E:861:ASN:C	1:E:861:ASN:OD1	2.56	0.47
1:E:861:ASN:ND2	1:E:864:ASP:OD2	2.46	0.47
1:F:527:LEU:HD12	1:F:531:MET:HE3	1.94	0.47
1:B:578:MET:CA	1:B:582:ILE:HG13	2.44	0.47
1:B:675:LYS:C	1:B:676:ILE:HG12	2.39	0.47
1:E:215:PHE:HE2	1:E:243:PRO:HB2	1.80	0.47
1:E:927:ASN:ND2	1:E:929:LYS:HD3	2.30	0.47
2:G:36:ILE:HG23	2:G:54:LYS:HE2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:36:ILE:HA	2:H:56:GLU:O	2.14	0.47
1:A:186:LYS:O	1:A:189:ASP:HB2	2.14	0.47
1:A:487:GLN:OE1	2:D:207:SER:N	2.47	0.47
1:A:606:HIS:CD2	2:D:206:MET:HB3	2.49	0.47
1:B:205:LYS:HZ2	1:B:232:VAL:HG22	1.79	0.47
1:B:205:LYS:O	1:B:208:ILE:HG22	2.15	0.47
1:B:260:TYR:HA	1:B:263:ASN:HD21	1.79	0.47
1:B:322:LEU:HD21	1:B:542:LEU:HD22	1.95	0.47
1:B:367:CYS:SG	1:B:370:ARG:NH2	2.88	0.47
1:B:455:TYR:O	1:B:458:ILE:HG22	2.13	0.47
1:B:569:MET:HE3	1:B:570:SER:N	2.23	0.47
1:B:802:ARG:HD3	1:B:840:LYS:HD2	1.96	0.47
1:E:242:LYS:NZ	1:E:243:PRO:HD2	2.29	0.47
1:F:481:ILE:HD12	1:F:484:SER:OG	2.14	0.47
2:G:15:ARG:H	2:G:20:LYS:CB	2.27	0.47
2:H:64:LYS:CG	2:H:217:GLU:HB3	2.39	0.47
1:A:30:ILE:O	1:A:34:THR:HG23	2.15	0.47
1:A:206:THR:HG21	1:B:206:THR:OG1	2.15	0.47
1:A:345:THR:HB	1:A:397:ALA:N	2.29	0.47
1:A:488:ALA:HA	1:A:491:GLN:NE2	2.29	0.47
1:B:249:ASP:CG	1:B:251:SER:HG	2.20	0.47
1:B:483:GLN:OE1	1:B:483:GLN:HA	2.15	0.47
1:E:207:ILE:HG22	1:E:213:ILE:HD11	1.96	0.47
2:H:63:VAL:HG22	2:H:220:PHE:CZ	2.49	0.47
1:A:85:LEU:O	1:A:187:GLU:HG2	2.15	0.47
1:A:247:ARG:HH12	1:A:249:ASP:N	2.13	0.47
1:A:337:ASP:HA	1:A:350:LYS:HB2	1.97	0.47
1:A:549:GLN:HA	1:A:552:TYR:CG	2.49	0.47
1:B:59:TRP:CE3	1:B:62:LEU:HD12	2.50	0.47
1:B:491:GLN:HE22	2:C:205:GLU:N	2.12	0.47
1:E:233:ARG:HH21	1:E:264:LYS:C	2.23	0.47
1:E:635:GLY:HA2	1:E:638:PHE:CD2	2.50	0.47
1:E:891:THR:O	1:E:894:VAL:HG22	2.15	0.47
1:F:174:PHE:HD2	1:F:178:PHE:HA	1.79	0.47
1:F:244:PHE:CD1	1:F:267:ARG:HB2	2.49	0.47
1:F:744:PHE:HE1	1:F:748:ASP:HB3	1.79	0.47
1:F:770:SER:O	1:F:774:ILE:HG13	2.14	0.47
1:F:825:LEU:HB3	1:F:852:HIS:NE2	2.29	0.47
2:G:15:ARG:H	2:G:20:LYS:HB3	1.80	0.47
1:A:38:ARG:NE	1:A:537:LYS:HD3	2.30	0.47
1:A:220:LEU:HB3	1:A:223:TYR:OH	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:225:ILE:O	1:A:229:LEU:CB	2.63	0.47
1:B:31:LYS:O	1:B:35:GLU:HG3	2.14	0.47
1:B:114:THR:HB	1:B:118:HIS:CD2	2.50	0.47
1:E:49:GLY:O	1:E:52:THR:OG1	2.24	0.47
1:E:233:ARG:NE	1:E:264:LYS:O	2.37	0.47
1:E:526:ASP:OD2	1:E:529:ASN:N	2.48	0.47
1:E:535:PHE:CE2	1:E:539:TYR:HD2	2.32	0.47
1:E:629:ARG:CG	1:E:631:ILE:HB	2.38	0.47
1:E:721:TYR:HD1	1:E:757:TRP:CE2	2.32	0.47
1:F:118:HIS:NE2	1:F:138:ILE:HD13	2.30	0.47
1:F:565:VAL:O	1:F:568:GLU:HG3	2.15	0.47
1:F:904:ILE:HG22	2:G:235:ILE:N	2.30	0.47
1:A:45:PHE:CE2	1:A:130:ILE:HG13	2.50	0.47
1:A:473:LEU:HA	1:A:476:ILE:HG22	1.97	0.47
1:A:606:HIS:CE1	2:D:206:MET:HB3	2.50	0.47
1:A:649:TYR:O	1:A:653:VAL:HG23	2.15	0.47
1:A:694:GLU:CD	1:A:694:GLU:H	2.23	0.47
1:A:717:LYS:NZ	1:A:749:LEU:HD23	2.30	0.47
1:A:801:SER:HB3	1:A:837:PHE:HE1	1.79	0.47
1:E:111:ASP:N	1:E:111:ASP:OD1	2.42	0.47
1:E:370:ARG:HH12	1:E:373:LEU:HD22	1.80	0.47
1:F:312:ILE:HG13	1:F:313:TYR:N	2.30	0.47
2:H:38:GLU:HA	2:H:54:LYS:HZ1	1.79	0.47
1:A:235:LEU:HD13	1:B:195:GLN:O	2.14	0.47
1:A:422:LYS:HA	1:A:422:LYS:HD2	1.49	0.47
1:B:491:GLN:HE22	2:C:206:MET:H	1.63	0.47
1:B:964:ASP:HB2	1:B:965:LYS:HZ3	1.79	0.47
2:D:31:SER:O	2:D:61:LEU:HD12	2.15	0.47
1:E:375:LYS:HD3	1:E:375:LYS:C	2.40	0.47
1:E:681:GLN:NE2	1:E:682:GLU:HA	2.30	0.47
1:E:866:MET:HA	1:E:869:ILE:HG12	1.97	0.47
1:F:358:GLU:OE1	1:F:362:GLU:HG2	2.15	0.47
1:F:801:SER:H	1:F:840:LYS:HZ1	1.62	0.47
1:F:861:ASN:HB3	1:F:863:ASN:O	2.15	0.47
1:F:906:THR:HB	2:G:233:VAL:HA	1.96	0.47
2:G:170:ARG:NH1	2:G:199:SER:HB2	2.30	0.47
1:A:90:ILE:O	1:A:94:VAL:HG12	2.14	0.46
1:B:89:GLN:OE1	1:B:187:GLU:HG3	2.15	0.46
1:B:518:GLU:HG3	1:B:519:MET:HE2	1.97	0.46
2:C:11:VAL:HG11	2:C:63:VAL:HG11	1.98	0.46
1:F:218:TYR:OH	1:F:224:ASN:ND2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:751:ILE:HD13	1:F:754:ARG:NE	2.30	0.46
2:G:13:PHE:HD2	2:G:22:VAL:HG12	1.81	0.46
1:A:964:ASP:N	1:A:964:ASP:OD1	2.47	0.46
1:B:439:ALA:HB1	1:B:455:TYR:CE1	2.51	0.46
1:E:448:TRP:CH2	1:E:707:VAL:HB	2.51	0.46
1:F:323:GLN:HE21	1:F:597:GLU:HG3	1.81	0.46
1:F:965:LYS:HE3	1:F:966:LEU:HG	1.98	0.46
1:A:241:HIS:HE2	1:B:159:ALA:HB1	1.80	0.46
1:B:313:TYR:HA	1:B:316:ILE:HG22	1.98	0.46
1:B:374:SER:OG	1:B:375:LYS:N	2.48	0.46
1:E:195:GLN:HA	1:E:198:PRO:HG3	1.97	0.46
1:E:699:PHE:CD2	1:E:743:TYR:HB3	2.50	0.46
1:F:328:ILE:HG13	1:F:329:ASP:N	2.31	0.46
1:F:439:ALA:HB2	1:F:454:LEU:CD2	2.45	0.46
1:F:752:GLY:N	1:F:799:LEU:HD21	2.31	0.46
1:A:174:PHE:CD1	1:A:178:PHE:HA	2.51	0.46
1:A:608:PHE:CZ	1:A:612:ILE:HD11	2.51	0.46
1:B:62:LEU:HD13	1:B:66:TYR:CE2	2.51	0.46
1:B:664:ILE:HD13	1:B:722:PHE:HE2	1.81	0.46
1:F:952:LYS:HE2	1:F:952:LYS:HA	1.97	0.46
1:F:960:LYS:HD2	1:F:962:TYR:HE2	1.80	0.46
1:B:290:MET:HA	1:B:293:LEU:HG	1.97	0.46
1:E:407:ILE:HD11	1:E:593:ARG:HB2	1.97	0.46
1:E:749:LEU:O	1:E:754:ARG:NH1	2.49	0.46
1:E:907:PHE:HD2	2:H:232:ALA:HB3	1.79	0.46
1:F:118:HIS:HE1	1:F:137:LEU:C	2.23	0.46
1:F:207:ILE:HA	1:F:210:THR:HG22	1.98	0.46
2:H:22:VAL:HG13	2:H:22:VAL:O	2.16	0.46
1:A:332:HIS:O	1:A:333:VAL:C	2.57	0.46
1:A:548:ASN:OD1	1:A:548:ASN:N	2.48	0.46
1:A:740:LEU:O	1:A:741:LEU:C	2.56	0.46
1:B:569:MET:SD	1:B:570:SER:OG	2.65	0.46
1:B:664:ILE:HB	1:B:722:PHE:CZ	2.51	0.46
1:B:685:GLU:OE2	1:B:688:LEU:HD23	2.15	0.46
1:B:817:SER:OG	1:B:844:LEU:O	2.30	0.46
1:E:455:TYR:CE2	1:E:481:ILE:HG21	2.51	0.46
1:E:550:PHE:H	1:E:550:PHE:HD1	1.64	0.46
1:F:652:PHE:CE1	1:F:722:PHE:HD2	2.34	0.46
1:F:911:ASP:HA	1:F:913:MET:HE1	1.98	0.46
2:H:70:LEU:HD23	2:H:70:LEU:HA	1.75	0.46
1:A:491:GLN:HB2	1:A:495:LEU:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:712:PHE:CG	1:A:713:ILE:N	2.83	0.46
1:B:204:MET:HE2	1:B:204:MET:HA	1.97	0.46
1:B:326:ARG:HB2	1:B:329:ASP:HB2	1.97	0.46
1:B:482:TYR:HE2	1:B:519:MET:HB2	1.80	0.46
1:B:643:SER:HB3	2:D:5:ILE:HG12	1.96	0.46
1:B:659:PHE:CD2	1:B:662:ASP:HA	2.50	0.46
2:C:70:LEU:O	2:C:71:GLU:C	2.58	0.46
1:E:367:CYS:O	1:E:370:ARG:HB2	2.16	0.46
1:E:449:GLU:HG3	1:E:511:PHE:CE2	2.51	0.46
1:E:737:VAL:HG21	1:E:771:ILE:HG23	1.96	0.46
1:F:187:GLU:HA	1:F:190:TYR:CD2	2.50	0.46
2:G:15:ARG:HG2	2:G:20:LYS:CG	2.43	0.46
2:G:225:ASP:OD2	2:G:227:ASP:HB3	2.16	0.46
2:H:192:TYR:HB2	2:H:235:ILE:HB	1.98	0.46
1:A:491:GLN:HB2	1:A:495:LEU:CB	2.46	0.46
1:A:549:GLN:HB2	1:A:552:TYR:CB	2.45	0.46
1:A:655:ILE:HG23	1:A:659:PHE:CE2	2.51	0.46
1:B:222:ASP:CG	1:B:225:ILE:HG23	2.40	0.46
1:B:290:MET:O	1:B:294:ILE:HG12	2.15	0.46
1:E:202:ASN:ND2	1:F:205:LYS:HE2	2.30	0.46
1:E:434:ASP:O	1:E:438:LYS:HG2	2.16	0.46
1:E:456:SER:HA	1:E:459:ILE:HD12	1.97	0.46
1:F:229:LEU:O	1:F:233:ARG:HG2	2.15	0.46
1:F:332:HIS:CE1	1:F:543:GLU:HG2	2.50	0.46
1:A:187:GLU:HA	1:A:190:TYR:CD2	2.51	0.46
1:B:31:LYS:HD2	1:B:31:LYS:C	2.41	0.46
1:B:62:LEU:HD23	1:B:107:PHE:CG	2.51	0.46
2:D:54:LYS:HB3	2:D:54:LYS:HE3	1.67	0.46
1:E:574:TYR:OH	1:E:629:ARG:NH1	2.47	0.46
1:F:612:ILE:HG21	1:F:658:HIS:ND1	2.30	0.46
1:F:728:LEU:HD12	1:F:728:LEU:HA	1.78	0.46
1:F:786:HIS:HA	1:F:791:TYR:HD2	1.80	0.46
1:A:188:ASP:O	1:A:192:ASN:ND2	2.49	0.46
1:A:581:ASP:HA	1:A:584:VAL:HG23	1.97	0.46
1:A:750:ASP:CG	1:A:796:SER:CB	2.89	0.46
1:B:588:LEU:HD11	1:B:615:SER:CB	2.46	0.46
2:C:37:SER:N	2:C:56:GLU:OE2	2.49	0.46
1:E:781:LEU:O	1:E:784:GLU:HG3	2.16	0.46
1:F:506:PRO:HG2	1:F:507:PHE:CE2	2.51	0.46
1:F:776:ASP:HA	1:F:779:LEU:HG	1.97	0.46
1:A:336:TYR:O	1:A:349:HIS:ND1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:197:TYR:O	1:B:197:TYR:HD1	1.98	0.45
1:B:279:GLU:O	1:B:285:ARG:NH2	2.49	0.45
1:B:533:PHE:CD1	1:B:533:PHE:N	2.83	0.45
1:B:891:THR:HA	1:B:894:VAL:HG22	1.98	0.45
2:D:177:THR:OG1	2:D:191:ILE:HB	2.16	0.45
1:E:45:PHE:HE1	1:E:213:ILE:HD12	1.81	0.45
1:E:436:TYR:OH	1:E:598:ASN:O	2.30	0.45
1:E:883:GLU:O	1:E:886:ILE:HG22	2.16	0.45
1:F:842:LEU:O	1:F:845:LEU:HB2	2.16	0.45
1:F:892:ARG:HA	1:F:895:ASN:ND2	2.29	0.45
1:F:963:ASN:ND2	2:G:52:ILE:HG22	2.30	0.45
1:F:965:LYS:O	1:F:966:LEU:C	2.57	0.45
2:G:197:ASN:HB3	2:G:223:LEU:O	2.15	0.45
1:A:116:PRO:HG2	1:A:120:LYS:HZ2	1.81	0.45
1:A:487:GLN:CD	2:D:207:SER:H	2.24	0.45
1:A:649:TYR:CE1	1:A:683:LYS:HB3	2.51	0.45
1:A:655:ILE:HG23	1:A:659:PHE:CZ	2.51	0.45
1:B:573:SER:OG	2:D:31:SER:HB2	2.16	0.45
2:D:198:VAL:HG13	2:D:220:PHE:HB3	1.97	0.45
1:E:606:HIS:CE1	2:H:206:MET:HA	2.51	0.45
1:E:721:TYR:O	1:E:760:ARG:NH2	2.43	0.45
1:E:923:GLU:O	1:E:923:GLU:HG2	2.16	0.45
1:F:130:ILE:HD13	1:F:168:LEU:HD23	1.98	0.45
1:F:326:ARG:HD3	1:F:594:PHE:CD2	2.51	0.45
1:F:827:LEU:HG	1:F:834:GLN:NE2	2.31	0.45
1:F:932:GLU:H	1:F:932:GLU:HG2	1.34	0.45
1:A:145:ARG:CZ	1:A:147:LYS:HG2	2.46	0.45
1:A:674:ASP:OD1	1:A:724:LYS:HB3	2.17	0.45
1:B:960:LYS:O	1:B:961:ASN:C	2.58	0.45
1:E:205:LYS:HB2	1:E:231:TRP:HZ2	1.81	0.45
1:E:448:TRP:HB3	1:E:481:ILE:HD11	1.98	0.45
1:E:862:ILE:HD12	1:E:866:MET:HE3	1.97	0.45
2:G:215:ALA:O	2:G:217:GLU:N	2.49	0.45
1:A:792:SER:HA	1:A:833:LYS:HD3	1.98	0.45
1:B:730:GLU:HG2	1:B:733:LEU:HD12	1.98	0.45
1:E:79:TYR:HA	1:E:83:GLU:OE1	2.15	0.45
1:E:328:ILE:C	1:E:328:ILE:HD12	2.41	0.45
1:E:632:ASP:CG	1:F:955:ILE:HD11	2.41	0.45
1:F:53:LEU:O	1:F:115:ASN:ND2	2.49	0.45
1:F:59:TRP:CH2	1:F:185:LEU:HG	2.51	0.45
1:F:151:VAL:HG22	1:F:167:LEU:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:472:TYR:HB2	1:F:535:PHE:HE2	1.81	0.45
1:F:727:LYS:HA	1:F:727:LYS:HD2	1.34	0.45
1:F:880:GLU:CD	1:F:880:GLU:H	2.24	0.45
1:A:331:LYS:O	1:A:332:HIS:C	2.59	0.45
1:A:475:GLN:HA	1:A:478:ARG:HH12	1.80	0.45
1:A:657:ARG:HA	1:A:715:GLU:OE2	2.15	0.45
1:A:768:PRO:HA	1:A:772:ILE:HB	1.99	0.45
1:B:289:VAL:O	1:B:293:LEU:HG	2.16	0.45
1:B:316:ILE:CD1	1:B:319:LEU:HD11	2.46	0.45
1:B:741:LEU:HD12	1:B:774:ILE:HG22	1.97	0.45
1:E:417:LYS:HD2	1:E:417:LYS:O	2.17	0.45
1:E:651:ASP:HA	1:E:654:ASN:HD21	1.81	0.45
1:E:664:ILE:O	1:E:667:LEU:HG	2.16	0.45
1:F:210:THR:HG23	1:F:211:HIS:ND1	2.31	0.45
1:F:566:ARG:O	1:F:569:MET:HB3	2.16	0.45
1:F:873:LEU:O	1:F:874:ILE:C	2.60	0.45
1:F:956:PRO:O	1:F:960:LYS:HG2	2.15	0.45
1:A:246:ILE:HA	1:A:269:ILE:HG23	1.99	0.45
1:B:89:GLN:HA	1:B:186:LYS:HZ3	1.82	0.45
1:B:660:LYS:HD3	1:B:660:LYS:HA	1.76	0.45
1:B:751:ILE:HD13	1:B:754:ARG:HH21	1.81	0.45
1:E:749:LEU:HB3	1:E:754:ARG:CZ	2.47	0.45
1:F:227:MET:SD	1:F:228:LEU:N	2.90	0.45
1:F:425:ILE:HD11	1:F:442:LEU:HD23	1.98	0.45
1:F:958:TRP:N	1:F:958:TRP:CD1	2.84	0.45
1:F:979:HIS:O	1:F:983:VAL:HG23	2.17	0.45
1:A:409:ILE:HD13	1:A:414:TYR:CE1	2.52	0.45
1:A:866:MET:N	1:A:866:MET:HE2	2.31	0.45
1:B:170:VAL:HG12	1:B:200:ILE:HG22	1.99	0.45
1:B:331:LYS:HE3	1:B:336:TYR:HE1	1.82	0.45
1:B:640:GLY:C	1:B:641:LYS:HG3	2.40	0.45
1:E:208:ILE:HA	1:E:213:ILE:CG1	2.46	0.45
1:E:297:GLN:O	1:E:299:ASN:N	2.50	0.45
1:E:767:LEU:HB2	1:E:811:PHE:CE2	2.52	0.45
1:E:847:THR:HA	1:E:850:LYS:HE3	1.99	0.45
1:F:59:TRP:O	1:F:63:VAL:HG23	2.16	0.45
1:F:79:TYR:HB3	1:F:84:TYR:HA	1.99	0.45
1:F:976:MET:HB3	1:F:979:HIS:NE2	2.32	0.45
1:A:388:PHE:HA	1:A:391:ASN:HD21	1.80	0.45
1:A:997:LEU:HG	1:A:1001:MET:HE3	1.98	0.45
1:B:240:PHE:CZ	1:B:243:PRO:HD3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:342:VAL:HG12	1:B:586:LEU:HB3	1.98	0.45
1:B:442:LEU:HB3	1:B:447:ARG:HH22	1.82	0.45
1:B:489:VAL:O	1:B:493:ASN:N	2.48	0.45
1:B:609:HIS:HD1	1:B:609:HIS:C	2.24	0.45
1:B:965:LYS:H	1:B:965:LYS:HG3	1.55	0.45
1:E:195:GLN:HE22	1:F:237:LYS:HE3	1.82	0.45
1:E:877:PHE:HE2	1:E:924:GLU:HB3	1.81	0.45
1:F:326:ARG:HB2	1:F:329:ASP:HB2	1.99	0.45
1:F:338:TYR:HE1	1:F:351:ASN:HB2	1.81	0.45
1:F:502:ARG:O	1:F:502:ARG:HD3	2.17	0.45
1:F:749:LEU:HD11	1:F:754:ARG:HG3	1.99	0.45
1:F:904:ILE:HG22	2:G:235:ILE:HA	1.99	0.45
1:F:906:THR:O	1:F:907:PHE:C	2.59	0.45
1:F:955:ILE:HD13	1:F:958:TRP:NE1	2.31	0.45
1:A:23:ASP:O	1:A:27:VAL:HG23	2.17	0.45
1:E:43:VAL:HG22	1:E:128:HIS:H	1.81	0.45
1:E:186:LYS:NZ	1:E:188:ASP:HB2	2.31	0.45
1:E:500:PHE:HD1	1:E:747:ARG:HH22	1.64	0.45
1:E:726:VAL:HG22	1:E:727:LYS:H	1.82	0.45
1:F:342:VAL:HG22	1:F:586:LEU:HD13	1.98	0.45
1:F:681:GLN:O	1:F:685:GLU:HG3	2.17	0.45
1:F:932:GLU:O	1:F:934:ILE:HG12	2.17	0.45
1:F:979:HIS:ND1	1:F:980:VAL:HG23	2.31	0.45
1:A:547:ASP:O	1:A:550:PHE:CD1	2.69	0.45
1:A:772:ILE:HA	1:A:775:ILE:HD12	1.99	0.45
1:E:124:MET:N	1:E:124:MET:SD	2.90	0.45
1:E:163:SER:OG	1:E:165:ARG:O	2.35	0.45
1:E:815:PHE:CE2	1:E:844:LEU:HA	2.52	0.45
1:E:818:LYS:HA	1:E:821:SER:HB2	1.99	0.45
1:E:865:LEU:HD23	1:E:865:LEU:HA	1.83	0.45
1:F:279:GLU:HA	1:F:285:ARG:HH22	1.82	0.45
1:F:909:SER:HB3	2:G:231:MET:HG2	1.98	0.45
1:A:87:ILE:HA	1:A:90:ILE:HG12	1.98	0.44
1:A:231:TRP:HA	1:A:234:LYS:HE2	1.99	0.44
1:A:257:THR:HA	1:E:86:ARG:HH22	1.83	0.44
1:B:152:ILE:HB	1:B:168:LEU:HD12	1.99	0.44
1:B:222:ASP:O	1:B:225:ILE:HG12	2.17	0.44
1:B:223:TYR:HA	1:B:226:ASN:HD21	1.82	0.44
1:E:61:ARG:NH1	1:E:64:ASP:HB2	2.32	0.44
1:E:105:LYS:CE	1:E:178:PHE:HB2	2.47	0.44
1:E:422:LYS:NZ	1:E:447:ARG:HH22	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:495:LEU:O	1:E:498:LEU:HG	2.17	0.44
1:E:973:ASN:O	1:E:977:LYS:HB2	2.17	0.44
1:F:294:ILE:HG22	1:F:295:GLU:N	2.32	0.44
2:G:20:LYS:HA	2:G:72:TRP:CH2	2.52	0.44
1:A:229:LEU:O	1:A:233:ARG:HB2	2.17	0.44
1:B:67:HIS:O	1:B:70:LEU:HB2	2.17	0.44
1:B:661:ILE:O	1:B:665:LYS:CB	2.64	0.44
1:F:963:ASN:O	1:F:967:LEU:HD23	2.11	0.44
1:F:965:LYS:O	1:F:968:GLY:N	2.50	0.44
2:H:72:TRP:HA	2:H:72:TRP:HE3	1.74	0.44
1:A:44:PHE:CE2	1:A:121:ILE:HD12	2.53	0.44
1:A:86:ARG:NH2	1:A:90:ILE:HD11	2.31	0.44
1:A:193:TYR:O	1:A:193:TYR:HD1	2.00	0.44
1:A:469:CYS:O	1:A:473:LEU:HD23	2.17	0.44
1:A:537:LYS:HA	1:A:537:LYS:HD2	1.76	0.44
1:A:620:ILE:HG21	1:A:667:LEU:HD21	1.99	0.44
1:A:794:VAL:HG12	1:A:796:SER:H	1.83	0.44
1:A:836:ASP:O	1:A:839:PHE:HB3	2.18	0.44
1:B:92:TYR:CD1	1:B:92:TYR:C	2.95	0.44
1:B:317:SER:HA	1:B:320:PHE:CZ	2.53	0.44
1:E:143:TRP:CE2	1:F:463:ILE:HG22	2.52	0.44
1:E:1001:MET:HG3	1:F:985:LYS:HE3	1.99	0.44
1:F:322:LEU:HD12	1:F:323:GLN:H	1.82	0.44
1:F:535:PHE:HA	1:F:538:LYS:HZ2	1.82	0.44
1:F:650:TYR:O	1:F:654:ASN:ND2	2.51	0.44
1:F:666:ASN:OD1	1:F:666:ASN:C	2.60	0.44
2:H:42:ARG:NH1	2:H:52:ILE:HD13	2.32	0.44
1:B:169:LYS:HE2	1:B:172:GLY:O	2.17	0.44
1:B:368:ASP:N	1:B:368:ASP:OD1	2.49	0.44
1:B:892:ARG:HA	1:B:895:ASN:HD21	1.82	0.44
1:F:32:GLU:O	1:F:35:GLU:HG3	2.18	0.44
1:F:119:ASP:OD1	1:F:119:ASP:N	2.50	0.44
2:H:205:GLU:HG3	2:H:207:SER:OG	2.18	0.44
1:A:827:LEU:HD13	1:A:835:ILE:HG22	1.99	0.44
1:A:914:SER:O	1:A:918:ILE:HG13	2.17	0.44
1:A:955:ILE:HD12	1:A:958:TRP:HZ2	1.81	0.44
1:B:245:PHE:O	1:B:268:ILE:HD12	2.17	0.44
1:B:685:GLU:CD	1:B:731:GLU:HB2	2.42	0.44
2:C:11:VAL:HB	2:C:24:THR:HB	1.99	0.44
2:C:15:ARG:HE	2:C:20:LYS:HE2	1.83	0.44
1:E:283:LEU:O	1:E:283:LEU:HD12	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:312:ILE:HD13	1:E:312:ILE:HA	1.78	0.44
1:E:333:VAL:HA	1:E:540:LYS:HD3	1.99	0.44
1:E:523:ASN:C	1:E:525:ASP:H	2.25	0.44
1:E:549:GLN:HA	1:E:552:TYR:CD2	2.51	0.44
1:F:725:TYR:CD1	1:F:725:TYR:N	2.84	0.44
1:F:789:GLN:HG3	1:F:831:LYS:NZ	2.33	0.44
1:F:863:ASN:CG	1:F:864:ASP:H	2.26	0.44
1:F:975:HIS:HD1	1:F:976:MET:CG	2.30	0.44
1:A:685:GLU:OE1	1:A:685:GLU:N	2.51	0.44
1:B:169:LYS:HG2	1:B:172:GLY:H	1.83	0.44
1:B:412:LEU:HA	1:B:415:HIS:CD2	2.52	0.44
1:B:475:GLN:HA	1:B:478:ARG:CZ	2.47	0.44
1:B:664:ILE:HG23	1:B:668:GLU:HG2	1.99	0.44
1:E:45:PHE:HA	1:E:130:ILE:O	2.18	0.44
1:E:629:ARG:HH11	1:E:631:ILE:HD12	1.83	0.44
1:E:725:TYR:O	1:E:726:VAL:HG12	2.17	0.44
1:E:963:ASN:ND2	1:E:965:LYS:HB3	2.32	0.44
1:E:974:LYS:O	1:E:974:LYS:HD3	2.17	0.44
1:F:75:LYS:HZ1	1:F:83:GLU:HB3	1.81	0.44
1:F:104:LEU:HD13	1:F:174:PHE:HE2	1.82	0.44
1:F:205:LYS:O	1:F:208:ILE:HG22	2.18	0.44
2:G:56:GLU:CD	2:G:57:LYS:N	2.75	0.44
1:A:147:LYS:NZ	1:B:526:ASP:O	2.51	0.44
1:A:605:PHE:O	1:A:609:HIS:NE2	2.51	0.44
1:B:197:TYR:O	1:B:197:TYR:CD1	2.71	0.44
1:B:279:GLU:C	1:B:285:ARG:HH22	2.26	0.44
1:B:363:LEU:HD23	1:B:369:GLU:HB3	1.99	0.44
1:B:593:ARG:HA	1:B:596:TYR:CB	2.46	0.44
1:B:864:ASP:OD1	1:B:865:LEU:N	2.50	0.44
1:E:61:ARG:HH12	1:E:64:ASP:HB2	1.83	0.44
1:E:156:GLU:OE1	1:F:239:SER:HB3	2.18	0.44
1:E:995:ARG:O	1:E:999:ILE:HB	2.17	0.44
1:F:224:ASN:O	1:F:228:LEU:HB3	2.16	0.44
1:F:316:ILE:HD12	1:F:316:ILE:HA	1.85	0.44
1:F:778:PHE:CD1	1:F:778:PHE:C	2.95	0.44
1:F:827:LEU:HD13	1:F:827:LEU:HA	1.81	0.44
1:F:909:SER:HB3	2:G:231:MET:HE3	1.99	0.44
1:F:940:TYR:HA	1:F:943:PHE:CD2	2.53	0.44
2:G:65:ASN:OD1	2:G:65:ASN:C	2.61	0.44
1:A:174:PHE:CE1	1:A:178:PHE:HA	2.53	0.44
1:A:225:ILE:O	1:A:229:LEU:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:439:ALA:HB2	1:A:454:LEU:HD23	2.00	0.44
1:A:580:SER:O	1:A:583:VAL:N	2.46	0.44
1:A:919:TRP:HE1	2:D:51:TYR:HB2	1.81	0.44
1:B:135:ASP:OD1	1:B:135:ASP:N	2.42	0.44
1:B:348:ARG:HG3	1:B:351:ASN:HB3	1.99	0.44
2:D:20:LYS:HA	2:D:72:TRP:CE2	2.52	0.44
1:E:115:ASN:HB2	1:E:116:PRO:HD2	1.99	0.44
1:E:994:LYS:NZ	1:F:989:LYS:O	2.45	0.44
1:F:58:GLN:HG3	1:F:61:ARG:NH1	2.33	0.44
1:F:735:LYS:HD2	1:F:735:LYS:HA	1.82	0.44
1:A:290:MET:SD	1:A:293:LEU:HD21	2.58	0.44
1:A:674:ASP:OD1	1:A:724:LYS:NZ	2.49	0.44
2:C:201:SER:O	2:C:201:SER:OG	2.33	0.44
1:E:359:ARG:NH1	1:E:359:ARG:HA	2.33	0.44
1:F:326:ARG:NH1	1:F:591:ASN:HA	2.33	0.44
1:F:407:ILE:H	2:H:2:LYS:CB	2.30	0.44
1:F:918:ILE:O	1:F:922:LEU:HB2	2.18	0.44
1:F:927:ASN:OD1	1:F:928:SER:N	2.51	0.44
1:F:939:GLN:HG3	1:F:958:TRP:HB3	1.99	0.44
1:F:956:PRO:HB2	1:F:996:TYR:OH	2.18	0.44
1:F:981:ILE:HG23	1:F:982:GLU:OE1	2.18	0.44
1:A:44:PHE:CD2	1:A:121:ILE:HG23	2.53	0.43
1:A:85:LEU:O	1:A:88:PRO:HG2	2.18	0.43
1:A:152:ILE:HG21	1:A:158:VAL:HG23	2.00	0.43
1:A:315:LYS:O	1:A:318:PRO:HD2	2.18	0.43
1:A:404:ASN:OD1	2:C:5:ILE:HA	2.17	0.43
1:A:772:ILE:HA	1:A:772:ILE:HD12	1.83	0.43
1:B:333:VAL:HG23	1:B:541:ILE:HD12	2.00	0.43
1:B:583:VAL:O	1:B:587:ARG:HG2	2.18	0.43
1:E:51:SER:OG	1:E:133:ASN:OD1	2.21	0.43
1:E:83:GLU:O	1:E:87:ILE:HG12	2.18	0.43
1:E:404:ASN:HB3	2:G:1:MET:HA	2.00	0.43
1:E:480:ARG:HG3	1:E:605:PHE:CZ	2.53	0.43
1:E:673:ILE:HG23	1:E:725:TYR:CE2	2.52	0.43
1:E:840:LYS:C	1:E:841:LEU:HD12	2.43	0.43
1:F:89:GLN:HA	1:F:186:LYS:CE	2.47	0.43
2:H:36:ILE:HD13	2:H:57:LYS:HZ1	1.83	0.43
1:A:662:ASP:OD1	1:A:663:ASP:N	2.51	0.43
1:A:764:CYS:O	1:A:765:ASN:ND2	2.51	0.43
1:B:134:TYR:CZ	1:B:171:ALA:HB1	2.53	0.43
1:B:312:ILE:HD13	1:B:312:ILE:HA	1.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:345:THR:HA	1:B:395:CYS:O	2.18	0.43
1:E:76:LYS:HE2	1:E:76:LYS:HA	1.99	0.43
1:E:507:PHE:N	1:E:507:PHE:CD1	2.83	0.43
1:E:544:PHE:CE1	1:E:550:PHE:HB2	2.53	0.43
1:E:706:VAL:O	1:E:710:THR:HG23	2.18	0.43
1:F:27:VAL:HA	1:F:30:ILE:HD12	2.00	0.43
1:F:60:TRP:CZ3	1:F:61:ARG:HG2	2.53	0.43
1:F:994:LYS:HD3	1:F:994:LYS:HA	1.72	0.43
2:H:29:THR:HG23	2:H:64:LYS:HZ2	1.83	0.43
1:A:140:THR:C	1:A:144:LYS:HZ2	2.26	0.43
1:A:706:VAL:HA	1:A:709:TYR:HD2	1.84	0.43
1:A:722:PHE:CZ	1:A:725:TYR:HD2	2.36	0.43
1:B:916:PHE:HA	1:B:919:TRP:HD1	1.83	0.43
1:B:956:PRO:O	1:B:996:TYR:OH	2.31	0.43
2:C:70:LEU:HD23	2:C:73:LEU:HD23	2.00	0.43
2:D:10:ASP:CG	2:D:176:ARG:HE	2.26	0.43
2:D:24:THR:N	2:D:68:PHE:HA	2.33	0.43
1:E:390:LYS:HD2	1:E:390:LYS:C	2.43	0.43
1:E:755:TYR:CE1	1:E:807:LEU:HB3	2.52	0.43
1:E:965:LYS:HA	1:E:965:LYS:HD2	1.90	0.43
1:F:322:LEU:HD11	1:F:598:ASN:HB3	1.99	0.43
1:F:724:LYS:HD3	1:F:760:ARG:CZ	2.48	0.43
2:G:65:ASN:O	2:G:216:PRO:HD2	2.18	0.43
1:A:548:ASN:CB	2:D:210:ASN:ND2	2.79	0.43
1:A:688:LEU:HD11	1:A:736:ILE:HD13	2.00	0.43
1:B:45:PHE:HB2	1:B:214:VAL:O	2.19	0.43
1:B:69:GLU:HB2	1:B:91:PHE:HE1	1.84	0.43
1:B:286:TYR:HB3	1:B:290:MET:HE2	2.01	0.43
1:B:326:ARG:NH1	1:B:329:ASP:OD2	2.51	0.43
1:B:913:MET:HE3	1:B:940:TYR:CG	2.53	0.43
1:B:978:HIS:NE2	1:B:982:GLU:OE2	2.51	0.43
1:E:137:LEU:O	1:E:140:THR:OG1	2.31	0.43
1:E:240:PHE:CD1	1:E:240:PHE:C	2.96	0.43
1:E:635:GLY:C	1:E:637:SER:N	2.76	0.43
1:E:893:LYS:HZ3	1:E:933:PHE:HA	1.84	0.43
1:F:357:MET:HG2	1:F:361:PHE:CZ	2.53	0.43
1:F:569:MET:CE	1:F:621:GLU:HB3	2.48	0.43
1:A:97:GLU:HA	1:A:100:PHE:HB2	2.00	0.43
1:A:261:TYR:HD1	1:A:261:TYR:HA	1.68	0.43
1:A:955:ILE:HB	1:A:958:TRP:CE2	2.54	0.43
1:B:231:TRP:CE2	1:B:235:LEU:HD11	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:256:GLU:O	1:B:259:ILE:HG22	2.18	0.43
1:B:369:GLU:HA	1:B:372:LYS:HD3	2.01	0.43
1:B:577:GLY:N	2:D:7:ASP:OD1	2.47	0.43
1:B:646:PHE:HB3	1:B:677:ARG:CZ	2.49	0.43
1:B:964:ASP:C	1:B:966:LEU:N	2.72	0.43
1:E:282:TYR:O	1:E:283:LEU:HB3	2.18	0.43
1:E:315:LYS:HD2	1:E:315:LYS:HA	1.77	0.43
1:E:528:PHE:O	1:E:531:MET:HB2	2.18	0.43
1:E:987:ARG:O	1:E:991:SER:HB3	2.18	0.43
1:F:94:VAL:HG13	1:F:95:LYS:HG2	2.00	0.43
1:F:412:LEU:O	1:F:416:GLY:N	2.51	0.43
1:A:206:THR:O	1:A:210:THR:HG23	2.19	0.43
1:A:326:ARG:NH1	1:A:328:ILE:HB	2.33	0.43
1:A:395:CYS:SG	1:A:396:MET:N	2.91	0.43
1:A:421:MET:HA	1:A:424:PHE:HB3	2.01	0.43
1:B:304:LYS:HE3	1:B:306:ASP:HB2	1.99	0.43
1:E:247:ARG:O	1:E:271:ALA:N	2.52	0.43
1:E:373:LEU:HD12	1:E:373:LEU:HA	1.72	0.43
1:E:479:TYR:CG	1:E:524:ILE:HG12	2.54	0.43
1:E:729:SER:C	1:E:732:GLY:H	2.26	0.43
1:E:850:LYS:C	1:E:854:LEU:HG	2.43	0.43
1:E:1000:LEU:HD12	1:E:1004:PHE:HD2	1.84	0.43
1:F:25:ASN:OD1	1:F:25:ASN:C	2.61	0.43
1:F:152:ILE:HA	1:F:157:ASP:CG	2.43	0.43
1:F:376:LYS:O	1:F:379:GLU:HG3	2.17	0.43
1:F:620:ILE:O	1:F:620:ILE:HG13	2.18	0.43
1:F:751:ILE:HA	1:F:754:ARG:HE	1.83	0.43
1:F:815:PHE:HD2	1:F:844:LEU:HD23	1.84	0.43
1:F:906:THR:HB	2:G:232:ALA:C	2.43	0.43
1:A:304:LYS:HE2	1:A:306:ASP:HB2	2.00	0.43
1:A:717:LYS:HG3	1:A:757:TRP:HH2	1.84	0.43
1:A:751:ILE:HA	1:A:754:ARG:CB	2.48	0.43
1:A:766:GLU:HB2	1:A:768:PRO:HD3	2.00	0.43
1:A:774:ILE:HD12	1:A:774:ILE:N	2.34	0.43
1:B:42:LEU:HB3	1:B:44:PHE:CE1	2.53	0.43
1:B:118:HIS:HA	1:B:121:ILE:CG2	2.46	0.43
1:B:661:ILE:HA	1:B:665:LYS:CE	2.48	0.43
1:B:696:THR:O	1:B:700:SER:CB	2.67	0.43
2:D:32:PHE:CD1	2:D:61:LEU:HD13	2.53	0.43
1:E:657:ARG:HB3	1:E:658:HIS:CE1	2.54	0.43
1:E:892:ARG:HD2	1:E:892:ARG:HA	1.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:119:ASP:HB2	1:F:120:LYS:HZ2	1.82	0.43
1:F:136:ASN:O	1:F:140:THR:HG23	2.19	0.43
1:F:827:LEU:HG	1:F:834:GLN:HE21	1.84	0.43
1:A:473:LEU:HD12	1:A:600:LEU:CD2	2.47	0.43
1:A:515:ILE:O	1:A:518:GLU:HG3	2.19	0.43
1:A:998:GLU:O	1:A:1002:ASN:HB2	2.19	0.43
1:B:136:ASN:C	1:B:136:ASN:OD1	2.61	0.43
1:B:493:ASN:C	1:B:494:GLY:O	2.60	0.43
1:B:608:PHE:O	1:B:612:ILE:HG13	2.19	0.43
1:E:886:ILE:HD12	1:E:886:ILE:HA	1.85	0.43
1:F:29:CYS:SG	1:F:244:PHE:HE1	2.42	0.43
1:F:89:GLN:HB3	1:F:186:LYS:HZ3	1.82	0.43
1:A:237:LYS:HB2	1:A:238:ASP:OD1	2.18	0.43
1:A:531:MET:HE3	1:A:532:PRO:CD	2.48	0.43
1:B:425:ILE:HG12	1:B:442:LEU:HD23	2.01	0.43
1:B:589:TYR:HA	1:B:592:LEU:HB3	1.99	0.43
1:B:607:GLU:HG3	1:B:608:PHE:N	2.32	0.43
2:C:5:ILE:O	2:C:6:GLN:HB3	2.18	0.43
1:E:100:PHE:O	1:E:104:LEU:HG	2.19	0.43
1:E:317:SER:OG	1:E:318:PRO:HD3	2.18	0.43
1:E:627:ARG:CZ	1:E:675:LYS:HB3	2.48	0.43
1:E:767:LEU:HB2	1:E:811:PHE:HE2	1.82	0.43
1:F:224:ASN:OD1	1:F:225:ILE:N	2.52	0.43
1:F:549:GLN:O	1:F:552:TYR:N	2.51	0.43
1:F:627:ARG:HE	1:F:675:LYS:HZ2	1.67	0.43
1:F:631:ILE:HG21	1:F:635:GLY:HA3	2.00	0.43
1:F:672:SER:OG	1:F:672:SER:O	2.36	0.43
1:A:396:MET:O	1:A:400:ALA:N	2.52	0.43
1:A:661:ILE:HD11	2:D:219:LYS:NZ	2.33	0.43
1:B:79:TYR:HB3	1:B:83:GLU:HB2	2.00	0.43
1:B:661:ILE:HA	1:B:665:LYS:HE3	2.00	0.43
1:E:148:TYR:CD2	1:F:532:PRO:HG3	2.54	0.43
1:E:435:ASP:HA	1:E:438:LYS:HE2	2.01	0.43
1:E:807:LEU:HD12	1:E:808:ILE:HG22	2.01	0.43
1:F:41:LYS:NZ	1:F:211:HIS:HA	2.31	0.43
1:F:950:ASP:OD1	1:F:950:ASP:O	2.37	0.43
1:A:225:ILE:HG13	1:A:226:ASN:N	2.33	0.42
1:A:551:LEU:HA	1:A:554:ASP:OD2	2.18	0.42
1:A:626:GLU:OE2	1:A:629:ARG:HD2	2.18	0.42
1:A:802:ARG:CZ	1:A:867:ASN:HA	2.49	0.42
1:A:866:MET:HA	1:A:869:ILE:HG22	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:85:LEU:O	1:B:187:GLU:HB3	2.19	0.42
1:B:254:GLU:OE1	1:B:254:GLU:N	2.52	0.42
1:B:438:LYS:HA	1:B:441:PHE:HD1	1.83	0.42
1:B:902:LYS:HB3	1:B:904:ILE:HD11	2.00	0.42
2:C:170:ARG:O	2:C:171:TYR:C	2.42	0.42
1:E:487:GLN:HG2	1:E:491:GLN:NE2	2.34	0.42
1:E:880:GLU:HA	1:E:883:GLU:OE1	2.19	0.42
1:F:851:SER:OG	1:F:852:HIS:N	2.50	0.42
2:G:72:TRP:N	2:G:72:TRP:CD1	2.87	0.42
1:A:170:VAL:HA	1:A:200:ILE:HD11	2.01	0.42
1:A:660:LYS:O	1:A:664:ILE:HD13	2.18	0.42
1:B:105:LYS:HE3	1:B:105:LYS:HB3	1.68	0.42
1:E:213:ILE:HB	1:E:243:PRO:HB3	2.01	0.42
1:E:220:LEU:HD21	1:E:247:ARG:HH22	1.84	0.42
1:E:322:LEU:HD13	1:E:322:LEU:HA	1.86	0.42
1:E:605:PHE:HA	2:H:207:SER:CB	2.42	0.42
1:E:695:ILE:HB	1:E:699:PHE:CE2	2.54	0.42
1:E:724:LYS:NZ	1:E:764:CYS:HB2	2.33	0.42
1:E:869:ILE:HD12	2:H:50:LEU:HG	2.01	0.42
1:F:346:VAL:H	1:F:396:MET:HA	1.83	0.42
1:F:802:ARG:HE	1:F:840:LYS:HA	1.85	0.42
1:F:921:PHE:CE2	1:F:970:ILE:HD13	2.54	0.42
2:G:212:ASN:C	2:G:214:LEU:N	2.72	0.42
2:H:22:VAL:HA	2:H:69:ASP:H	1.84	0.42
1:A:87:ILE:N	1:A:88:PRO:HD2	2.34	0.42
1:A:491:GLN:C	1:A:494:GLY:H	2.27	0.42
1:B:533:PHE:N	1:B:533:PHE:HD1	2.17	0.42
1:E:24:ASN:OD1	1:E:25:ASN:N	2.52	0.42
1:E:53:LEU:HD11	1:E:286:TYR:HE2	1.81	0.42
1:F:216:ILE:HG22	1:F:246:ILE:HG13	2.01	0.42
1:F:965:LYS:HZ2	2:G:49:PRO:HA	1.83	0.42
2:H:21:LEU:O	2:H:71:GLU:HB3	2.19	0.42
2:H:63:VAL:HG22	2:H:220:PHE:HZ	1.83	0.42
1:A:214:VAL:HG12	1:A:244:PHE:HD2	1.85	0.42
1:A:215:PHE:HB2	1:A:245:PHE:HD1	1.82	0.42
1:A:286:TYR:N	1:A:286:TYR:CD1	2.87	0.42
1:A:581:ASP:O	1:A:582:ILE:C	2.54	0.42
1:A:581:ASP:O	1:A:585:LEU:N	2.39	0.42
1:B:27:VAL:HA	1:B:30:ILE:HG22	2.01	0.42
1:B:606:HIS:ND1	1:B:609:HIS:HB3	2.35	0.42
1:B:696:THR:O	1:B:700:SER:OG	2.36	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:130:ILE:HA	1:E:168:LEU:O	2.19	0.42
1:F:626:GLU:HG2	1:F:629:ARG:NH2	2.35	0.42
2:H:192:TYR:O	2:H:234:VAL:HA	2.20	0.42
1:A:248:THR:HB	1:A:286:TYR:CZ	2.54	0.42
1:A:657:ARG:HA	1:A:715:GLU:CD	2.44	0.42
1:A:659:PHE:HD2	1:A:718:ALA:HB1	1.85	0.42
1:A:744:PHE:HD1	1:A:745:PRO:HD2	1.84	0.42
1:B:75:LYS:HB3	1:B:79:TYR:CZ	2.54	0.42
1:E:304:LYS:CD	1:E:307:GLU:H	2.32	0.42
1:E:326:ARG:HD2	1:E:328:ILE:CD1	2.49	0.42
1:E:556:VAL:HG11	1:F:552:TYR:CE2	2.53	0.42
1:E:687:TYR:O	1:E:691:ILE:HG12	2.19	0.42
1:E:801:SER:OG	1:E:841:LEU:HD11	2.20	0.42
1:F:117:ILE:HD12	1:F:290:MET:SD	2.60	0.42
1:F:697:LYS:HE2	1:F:697:LYS:HB2	1.87	0.42
1:A:128:HIS:CE1	1:A:165:ARG:HA	2.54	0.42
1:A:473:LEU:HA	1:A:476:ILE:CG2	2.49	0.42
1:B:438:LYS:O	1:B:442:LEU:HG	2.19	0.42
1:B:547:ASP:N	1:B:547:ASP:OD1	2.49	0.42
2:D:27:ALA:HB1	2:D:64:LYS:H	1.85	0.42
1:E:131:THR:HG22	1:E:169:LYS:HB2	2.01	0.42
1:E:477:ASN:O	1:E:481:ILE:HG22	2.18	0.42
1:E:955:ILE:HB	1:E:958:TRP:CE2	2.55	0.42
1:F:66:TYR:CB	1:F:87:ILE:HG12	2.50	0.42
1:F:255:ASN:O	1:F:258:LEU:HG	2.19	0.42
1:F:289:VAL:HG23	1:F:290:MET:CE	2.50	0.42
1:F:450:GLU:H	1:F:450:GLU:CD	2.28	0.42
1:F:724:LYS:HD3	1:F:760:ARG:NH2	2.35	0.42
2:H:227:ASP:O	2:H:228:THR:OG1	2.25	0.42
1:A:585:LEU:HA	1:A:588:LEU:HB2	2.02	0.42
1:A:750:ASP:O	1:A:753:LYS:HB2	2.20	0.42
1:A:949:PHE:CE2	1:A:951:TYR:HA	2.54	0.42
1:B:69:GLU:N	1:B:69:GLU:OE1	2.52	0.42
1:B:247:ARG:HD3	1:B:249:ASP:HB2	2.02	0.42
1:E:454:LEU:O	1:E:458:ILE:HG23	2.19	0.42
1:E:606:HIS:CE1	2:H:205:GLU:O	2.73	0.42
1:E:613:ARG:O	1:E:616:MET:HG3	2.20	0.42
1:E:660:LYS:HD2	1:E:661:ILE:HG22	2.00	0.42
1:E:869:ILE:HG22	1:E:874:ILE:HB	2.02	0.42
1:E:916:PHE:HA	1:E:919:TRP:CE3	2.55	0.42
1:F:656:SER:C	1:F:715:GLU:HG3	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:865:LEU:O	1:F:866:MET:C	2.62	0.42
1:F:984:LEU:HD22	1:F:1000:LEU:HB2	2.02	0.42
2:G:170:ARG:HB3	2:G:172:GLU:OE2	2.19	0.42
2:H:15:ARG:HB2	2:H:171:TYR:CE1	2.55	0.42
1:A:208:ILE:HD13	1:A:213:ILE:HG13	2.01	0.42
1:A:345:THR:HG22	1:A:395:CYS:O	2.20	0.42
1:A:757:TRP:HA	1:A:760:ARG:HB2	2.00	0.42
1:A:937:ASP:HB3	1:A:940:TYR:HB2	2.01	0.42
1:B:231:TRP:NE1	1:B:235:LEU:HD11	2.34	0.42
1:B:664:ILE:HG13	1:B:668:GLU:OE1	2.20	0.42
1:B:830:ASP:OD1	1:B:830:ASP:N	2.52	0.42
1:B:870:ARG:HA	2:C:51:TYR:CZ	2.55	0.42
2:D:189:SER:HA	2:D:238:SER:HB3	2.01	0.42
1:E:304:LYS:HD2	1:E:306:ASP:N	2.35	0.42
1:E:574:TYR:HD2	2:G:32:PHE:HB2	1.85	0.42
1:E:618:LEU:O	1:E:621:GLU:HB2	2.20	0.42
1:F:44:PHE:HD1	1:F:214:VAL:HB	1.84	0.42
1:F:305:ASP:O	1:F:309:ILE:HG12	2.19	0.42
1:A:676:ILE:CG2	1:A:677:ARG:N	2.78	0.42
1:A:747:ARG:HD3	1:A:747:ARG:HA	1.66	0.42
1:B:528:PHE:C	1:B:528:PHE:CD1	2.98	0.42
1:B:708:PHE:HA	1:B:711:GLN:HG2	2.02	0.42
2:C:70:LEU:HD22	2:C:74:ALA:N	2.35	0.42
1:E:130:ILE:HD12	1:E:168:LEU:HB3	2.02	0.42
1:E:279:GLU:OE1	1:E:279:GLU:N	2.45	0.42
1:E:606:HIS:CD2	2:H:206:MET:O	2.73	0.42
1:F:186:LYS:HZ2	1:F:188:ASP:H	1.66	0.42
1:F:245:PHE:N	1:F:267:ARG:O	2.51	0.42
1:F:409:ILE:HG13	1:F:650:TYR:CE2	2.55	0.42
1:F:657:ARG:NH1	1:F:715:GLU:OE1	2.53	0.42
1:F:782:GLN:OE1	1:F:785:LYS:HD2	2.20	0.42
2:G:212:ASN:CG	2:G:214:LEU:H	2.28	0.42
1:A:91:PHE:CE2	1:A:103:ILE:HD12	2.54	0.42
1:A:481:ILE:O	1:A:485:ILE:HG13	2.20	0.42
1:A:606:HIS:HA	2:D:206:MET:O	2.19	0.42
1:A:772:ILE:HD12	1:A:775:ILE:HD13	2.02	0.42
1:B:391:ASN:ND2	1:B:393:VAL:HG23	2.34	0.42
1:B:418:TYR:O	1:B:422:LYS:HG3	2.20	0.42
1:B:473:LEU:HD21	1:B:542:LEU:HD21	2.00	0.42
1:B:560:GLU:OE1	1:B:564:LYS:HD2	2.20	0.42
1:B:655:ILE:O	1:B:659:PHE:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:892:ARG:HH21	1:B:908:SER:HB2	1.83	0.42
2:C:36:ILE:HA	2:C:56:GLU:O	2.20	0.42
1:E:432:ILE:H	1:E:432:ILE:HG12	1.64	0.42
1:E:660:LYS:N	1:E:663:ASP:OD2	2.45	0.42
1:E:801:SER:CB	1:E:841:LEU:HD11	2.50	0.42
1:F:71:TYR:O	1:F:73:SER:N	2.53	0.42
1:F:185:LEU:HD12	1:F:185:LEU:HA	1.88	0.42
1:F:871:ILE:HG13	1:F:872:GLY:N	2.35	0.42
1:F:899:GLU:CD	1:F:904:ILE:HG13	2.45	0.42
2:H:23:PHE:CE1	2:H:66:ALA:HB2	2.37	0.42
2:H:192:TYR:CD2	2:H:235:ILE:HB	2.55	0.42
1:A:117:ILE:O	1:A:121:ILE:HG12	2.19	0.41
1:A:258:LEU:O	1:A:262:GLU:HG3	2.20	0.41
1:A:607:GLU:OE1	1:A:607:GLU:HA	2.19	0.41
1:A:699:PHE:CB	1:A:704:MET:HG3	2.48	0.41
1:A:709:TYR:O	1:A:712:PHE:HB2	2.20	0.41
1:A:861:ASN:O	1:A:865:LEU:N	2.48	0.41
1:A:997:LEU:O	1:A:1000:LEU:HG	2.19	0.41
1:B:147:LYS:N	1:B:147:LYS:HD3	2.33	0.41
1:E:115:ASN:OD1	1:E:118:HIS:ND1	2.53	0.41
1:E:627:ARG:NH1	1:E:675:LYS:HB3	2.35	0.41
1:E:755:TYR:CE1	1:E:807:LEU:HD23	2.54	0.41
1:E:834:GLN:HA	1:E:837:PHE:HB3	2.01	0.41
1:E:919:TRP:O	1:E:924:GLU:HB2	2.20	0.41
1:F:68:GLU:OE1	1:F:74:PRO:HD3	2.20	0.41
1:F:385:PHE:CE1	1:F:389:GLU:HG3	2.55	0.41
1:F:647:MET:SD	1:F:678:PHE:HD1	2.43	0.41
1:F:795:SER:OG	1:F:799:LEU:HG	2.20	0.41
2:H:170:ARG:O	2:H:171:TYR:HB2	2.19	0.41
1:A:195:GLN:HG2	1:A:196:ASN:N	2.34	0.41
1:A:198:PRO:HG3	1:B:235:LEU:HD22	2.02	0.41
1:A:367:CYS:HA	1:A:370:ARG:NE	2.35	0.41
1:B:286:TYR:O	1:B:290:MET:HE2	2.20	0.41
1:B:332:HIS:HB2	1:B:541:ILE:HG13	2.02	0.41
1:B:407:ILE:HD12	1:B:589:TYR:CB	2.50	0.41
1:B:509:ASP:N	1:B:509:ASP:OD1	2.53	0.41
2:D:178:ILE:HG12	2:D:190:ASP:OD1	2.20	0.41
1:E:92:TYR:HA	1:E:96:GLY:O	2.19	0.41
1:E:472:TYR:CD2	1:E:542:LEU:HG	2.55	0.41
1:E:491:GLN:O	1:E:495:LEU:HD23	2.20	0.41
1:E:801:SER:HB3	1:E:841:LEU:HD11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:946:PRO:HG2	1:E:975:HIS:CE1	2.55	0.41
1:F:43:VAL:HG12	1:F:212:THR:O	2.19	0.41
1:F:256:GLU:HA	1:F:259:ILE:HG12	2.02	0.41
1:F:569:MET:SD	1:F:625:TYR:HD2	2.44	0.41
1:F:711:GLN:C	1:F:712:PHE:CD1	2.98	0.41
1:F:959:LEU:O	1:F:960:LYS:C	2.61	0.41
2:H:66:ALA:HB3	2:H:218:ILE:HD11	2.03	0.41
1:A:338:TYR:HE1	1:A:351:ASN:HB2	1.84	0.41
1:A:411:SER:HB2	1:A:415:HIS:CE1	2.54	0.41
1:A:531:MET:HE3	1:A:531:MET:HA	2.03	0.41
1:A:582:ILE:O	1:A:585:LEU:N	2.52	0.41
1:A:750:ASP:CG	1:A:796:SER:HB3	2.44	0.41
1:B:657:ARG:HA	1:B:715:GLU:HG3	2.01	0.41
1:B:857:LYS:HA	1:B:857:LYS:HD3	1.83	0.41
1:B:960:LYS:HD3	1:B:996:TYR:CE1	2.55	0.41
1:E:298:GLU:C	1:E:300:LYS:N	2.78	0.41
1:E:674:ASP:HA	1:E:725:TYR:CZ	2.54	0.41
1:E:816:ILE:HG22	1:E:818:LYS:HG2	2.02	0.41
1:E:887:GLU:O	1:E:890:GLU:HG3	2.20	0.41
1:E:889:LEU:HB3	1:E:933:PHE:CE2	2.55	0.41
1:F:422:LYS:HD2	1:F:422:LYS:C	2.45	0.41
1:F:615:SER:O	1:F:619:LEU:HG	2.21	0.41
1:F:653:VAL:HG22	1:F:687:TYR:CE1	2.56	0.41
1:F:677:ARG:HG2	1:F:678:PHE:H	1.85	0.41
1:F:821:SER:O	1:F:825:LEU:HG	2.19	0.41
1:A:208:ILE:HA	1:A:213:ILE:HD11	2.02	0.41
1:A:675:LYS:O	1:A:678:PHE:HB3	2.20	0.41
1:A:890:GLU:O	1:A:893:LYS:HG2	2.20	0.41
1:B:48:ALA:HA	1:B:133:ASN:HB3	2.02	0.41
1:B:283:LEU:HD12	1:B:284:GLU:HG3	2.01	0.41
1:B:286:TYR:O	1:B:289:VAL:HG12	2.20	0.41
1:B:420:VAL:HB	1:B:424:PHE:CZ	2.55	0.41
1:E:124:MET:CE	1:E:124:MET:H	2.33	0.41
1:E:375:LYS:NZ	1:E:379:GLU:OE1	2.46	0.41
1:E:705:ASN:O	1:E:705:ASN:OD1	2.38	0.41
1:E:708:PHE:CD1	1:E:711:GLN:HB3	2.55	0.41
1:E:1002:ASN:N	1:E:1005:ILE:OXT	2.50	0.41
1:E:1003:TYR:O	1:E:1004:PHE:C	2.62	0.41
1:F:41:LYS:NZ	1:F:210:THR:O	2.53	0.41
1:F:383:ALA:O	1:F:386:ASN:HB2	2.20	0.41
1:F:435:ASP:O	1:F:438:LYS:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:660:LYS:HE2	2:G:203:GLU:OE2	2.20	0.41
1:F:804:TYR:O	1:F:808:ILE:HD12	2.21	0.41
1:F:845:LEU:HD13	1:F:849:ALA:HB1	2.03	0.41
2:G:14:LYS:NZ	2:G:174:GLU:HB2	2.35	0.41
1:A:82:ASP:OD1	1:A:82:ASP:C	2.64	0.41
1:A:652:PHE:CD1	1:A:684:ILE:HG23	2.55	0.41
1:B:33:ILE:HG12	1:B:33:ILE:H	1.72	0.41
1:B:813:LYS:HE2	1:B:813:LYS:HB2	1.93	0.41
2:C:240:ASP:N	2:C:240:ASP:OD1	2.50	0.41
1:E:741:LEU:HD12	1:E:778:PHE:CG	2.56	0.41
1:E:769:LYS:HA	1:E:772:ILE:HD13	2.02	0.41
1:E:777:ASP:OD1	1:E:819:ARG:NH2	2.53	0.41
1:F:362:GLU:O	1:F:365:GLU:HG2	2.20	0.41
2:G:15:ARG:N	2:G:20:LYS:HE3	2.35	0.41
1:A:85:LEU:HB2	1:A:187:GLU:OE2	2.20	0.41
1:A:235:LEU:O	1:A:237:LYS:HG2	2.20	0.41
1:A:326:ARG:HA	1:A:593:ARG:HH21	1.86	0.41
1:A:404:ASN:OD1	2:C:5:ILE:HG23	2.21	0.41
1:A:607:GLU:HB3	1:A:610:GLN:HB2	2.02	0.41
1:A:713:ILE:HG23	1:A:717:LYS:H	1.86	0.41
1:A:800:TYR:C	1:A:802:ARG:N	2.78	0.41
1:A:885:ILE:HG12	1:A:916:PHE:CE1	2.55	0.41
1:B:337:ASP:OD1	1:B:338:TYR:N	2.54	0.41
1:B:437:LYS:O	1:B:441:PHE:CD1	2.74	0.41
1:B:801:SER:HA	1:B:804:TYR:CD2	2.55	0.41
1:E:635:GLY:O	1:E:636:PHE:C	2.61	0.41
1:E:892:ARG:HG3	1:E:913:MET:HE1	2.03	0.41
1:F:449:GLU:CB	1:F:511:PHE:HE2	2.34	0.41
1:F:799:LEU:HA	1:F:799:LEU:HD23	1.58	0.41
1:F:869:ILE:HD12	1:F:874:ILE:O	2.17	0.41
1:A:86:ARG:NH1	1:A:89:GLN:HB3	2.33	0.41
1:A:198:PRO:HG2	1:B:235:LEU:HD13	2.02	0.41
1:A:277:SER:HB3	1:A:285:ARG:HH21	1.86	0.41
1:A:284:GLU:OE1	1:A:285:ARG:NH2	2.53	0.41
1:A:578:MET:O	1:A:578:MET:HG3	2.19	0.41
1:B:479:TYR:CE2	1:B:524:ILE:HG21	2.56	0.41
1:B:491:GLN:CD	2:C:206:MET:HG2	2.46	0.41
1:B:961:ASN:OD1	1:B:961:ASN:N	2.52	0.41
1:E:23:ASP:O	1:E:27:VAL:HG23	2.20	0.41
1:E:552:TYR:CE1	1:F:556:VAL:HG11	2.56	0.41
1:E:880:GLU:HA	1:E:883:GLU:CD	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:952:LYS:HB2	1:E:952:LYS:HE3	1.77	0.41
1:F:131:THR:O	1:F:169:LYS:HA	2.20	0.41
1:F:173:ASP:N	1:F:173:ASP:OD1	2.53	0.41
1:F:376:LYS:HA	1:F:376:LYS:HD2	1.93	0.41
1:F:610:GLN:CD	1:F:613:ARG:HH22	2.28	0.41
1:F:625:TYR:C	1:F:625:TYR:CD1	2.99	0.41
1:F:802:ARG:HB2	1:F:840:LYS:CA	2.50	0.41
2:G:214:LEU:HA	2:G:214:LEU:HD13	1.59	0.41
1:A:323:GLN:HB2	1:A:597:GLU:OE1	2.21	0.41
1:A:331:LYS:C	1:A:332:HIS:CG	2.99	0.41
1:B:54:SER:O	1:B:54:SER:OG	2.30	0.41
1:B:95:LYS:HA	1:B:95:LYS:HD2	1.65	0.41
1:B:148:TYR:HE2	1:B:163:SER:HB2	1.85	0.41
1:B:173:ASP:C	1:B:183:VAL:HG23	2.46	0.41
1:B:729:SER:O	1:B:731:GLU:N	2.54	0.41
2:C:70:LEU:HD23	2:C:73:LEU:HB3	2.03	0.41
1:E:116:PRO:HA	1:E:119:ASP:OD2	2.20	0.41
1:E:163:SER:HA	1:F:533:PHE:CZ	2.55	0.41
1:E:254:GLU:CD	1:E:254:GLU:N	2.79	0.41
1:E:661:ILE:HA	1:E:664:ILE:HD12	2.03	0.41
1:E:692:ALA:O	1:E:695:ILE:HG12	2.21	0.41
1:E:954:PHE:HB2	1:E:958:TRP:HZ3	1.86	0.41
1:F:80:SER:O	1:F:83:GLU:N	2.54	0.41
1:F:455:TYR:OH	1:F:477:ASN:OD1	2.23	0.41
1:F:723:ALA:O	1:F:726:VAL:HG22	2.21	0.41
1:A:127:ALA:O	1:A:128:HIS:ND1	2.53	0.41
1:A:316:ILE:O	1:A:319:LEU:HB2	2.20	0.41
1:A:549:GLN:O	1:A:552:TYR:HB2	2.20	0.41
1:A:583:VAL:HA	1:A:586:LEU:CD1	2.51	0.41
1:A:655:ILE:HG21	1:A:722:PHE:CE1	2.56	0.41
1:B:245:PHE:N	1:B:267:ARG:O	2.54	0.41
1:B:536:GLN:HG2	1:B:537:LYS:N	2.36	0.41
2:C:170:ARG:NE	2:C:197:ASN:OD1	2.54	0.41
1:E:235:LEU:CG	1:E:236:GLN:H	2.34	0.41
1:E:304:LYS:NZ	1:E:307:GLU:HB2	2.31	0.41
1:E:324:TYR:HA	1:E:390:LYS:NZ	2.35	0.41
1:E:383:ALA:HA	1:E:386:ASN:HD21	1.86	0.41
1:E:440:PHE:CD1	1:E:440:PHE:C	2.94	0.41
1:E:540:LYS:HE2	1:E:540:LYS:HB2	1.92	0.41
1:E:606:HIS:HB3	1:E:610:GLN:HE21	1.85	0.41
1:E:963:ASN:O	1:E:967:LEU:N	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:37:SER:HB3	1:F:42:LEU:HD22	2.03	0.41
1:F:197:TYR:HD1	1:F:197:TYR:HA	1.81	0.41
1:F:478:ARG:HA	1:F:481:ILE:HG22	2.03	0.41
1:F:578:MET:HG2	1:F:582:ILE:HD11	2.03	0.41
1:F:614:ASN:O	1:F:618:LEU:HD12	2.21	0.41
1:F:696:THR:O	1:F:700:SER:OG	2.30	0.41
1:F:706:VAL:O	1:F:709:TYR:N	2.54	0.41
1:F:956:PRO:HB3	1:F:987:ARG:HG3	2.03	0.41
2:G:15:ARG:HG2	2:G:20:LYS:HB2	2.03	0.41
2:H:32:PHE:CE1	2:H:59:ILE:HG23	2.49	0.41
2:H:206:MET:O	2:H:207:SER:C	2.64	0.41
1:A:31:LYS:O	1:A:34:THR:OG1	2.36	0.41
1:A:656:SER:C	1:A:715:GLU:HB2	2.46	0.41
1:A:735:LYS:HD3	1:A:735:LYS:HA	1.80	0.41
1:B:192:ASN:HB3	1:B:196:ASN:OD1	2.20	0.41
1:B:414:TYR:OH	1:B:654:ASN:ND2	2.54	0.41
2:D:64:LYS:HB2	2:D:217:GLU:HA	2.02	0.41
1:E:105:LYS:HD3	1:E:178:PHE:HB2	2.03	0.41
1:E:754:ARG:HB2	1:E:804:TYR:OH	2.21	0.41
1:E:954:PHE:HB2	1:E:958:TRP:CZ3	2.55	0.41
1:F:95:LYS:HD3	1:F:95:LYS:HA	1.94	0.41
2:G:56:GLU:OE2	2:G:58:GLU:N	2.52	0.41
2:G:56:GLU:OE2	2:G:57:LYS:N	2.54	0.41
2:G:75:MET:O	2:G:75:MET:HE3	2.20	0.41
1:A:85:LEU:HD13	1:A:190:TYR:CZ	2.56	0.40
1:A:188:ASP:HA	1:A:191:LEU:HB3	2.03	0.40
1:A:596:TYR:N	1:A:596:TYR:CD1	2.89	0.40
1:A:740:LEU:C	1:A:742:PHE:N	2.77	0.40
1:A:795:SER:OG	1:A:799:LEU:C	2.64	0.40
1:A:802:ARG:CB	1:A:840:LYS:CB	2.99	0.40
1:B:79:TYR:HB2	1:B:84:TYR:CZ	2.56	0.40
1:B:280:TYR:HA	1:B:282:TYR:CZ	2.56	0.40
1:B:412:LEU:HA	1:B:415:HIS:HD2	1.85	0.40
1:B:491:GLN:NE2	2:C:206:MET:H	2.19	0.40
1:B:598:ASN:OD1	1:B:600:LEU:N	2.54	0.40
2:C:29:THR:OG1	2:C:64:LYS:HE3	2.21	0.40
1:E:448:TRP:HZ3	1:E:707:VAL:HG21	1.86	0.40
1:E:544:PHE:O	1:E:550:PHE:HB3	2.20	0.40
1:F:359:ARG:HA	1:F:362:GLU:HB2	2.02	0.40
1:F:407:ILE:O	1:F:650:TYR:HE2	2.05	0.40
1:F:448:TRP:HB3	1:F:481:ILE:HD11	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:614:ASN:OD1	1:F:614:ASN:C	2.64	0.40
1:F:750:ASP:OD1	1:F:753:LYS:HB3	2.21	0.40
1:F:755:TYR:HE1	1:F:807:LEU:HD23	1.86	0.40
1:F:776:ASP:HB3	1:F:820:LEU:HD22	2.04	0.40
1:F:960:LYS:NZ	1:F:999:ILE:HG13	2.33	0.40
2:G:240:ASP:N	2:G:240:ASP:OD1	2.51	0.40
2:H:11:VAL:HG13	2:H:175:TYR:CE1	2.49	0.40
2:H:175:TYR:HD1	2:H:175:TYR:HA	1.75	0.40
2:H:177:THR:OG1	2:H:191:ILE:HB	2.22	0.40
1:A:487:GLN:HG3	2:D:207:SER:H	1.86	0.40
1:A:605:PHE:HD1	1:A:605:PHE:HA	1.78	0.40
1:A:711:GLN:CD	1:A:711:GLN:N	2.79	0.40
1:A:717:LYS:HZ3	1:A:749:LEU:HD23	1.86	0.40
1:A:780:VAL:HG13	1:A:820:LEU:HB3	2.02	0.40
1:B:98:MET:HA	1:B:101:ASP:OD2	2.21	0.40
1:B:442:LEU:HB3	1:B:447:ARG:NH1	2.34	0.40
1:B:685:GLU:O	1:B:689:VAL:HG13	2.20	0.40
2:C:61:LEU:HD23	2:C:175:TYR:CZ	2.56	0.40
2:D:23:PHE:CZ	2:D:220:PHE:HZ	2.39	0.40
1:E:32:GLU:CD	1:E:267:ARG:HH22	2.24	0.40
1:E:235:LEU:HD23	1:F:198:PRO:HG2	2.02	0.40
1:E:375:LYS:HD3	1:E:376:LYS:N	2.36	0.40
1:E:415:HIS:HA	1:E:649:TYR:OH	2.20	0.40
1:E:475:GLN:HB2	1:E:527:LEU:HD21	2.03	0.40
1:F:64:ASP:OD1	1:F:64:ASP:C	2.64	0.40
1:F:452:TYR:OH	1:F:514:ARG:NE	2.55	0.40
1:F:459:ILE:HA	1:F:459:ILE:HD12	1.77	0.40
1:F:869:ILE:HG12	1:F:919:TRP:CZ2	2.49	0.40
1:F:888:TYR:CZ	1:F:912:TYR:HB2	2.56	0.40
1:F:900:LYS:HE2	1:F:900:LYS:HB2	1.90	0.40
2:G:68:PHE:O	2:G:68:PHE:CG	2.75	0.40
2:G:201:SER:O	2:G:219:LYS:HB2	2.21	0.40
2:H:177:THR:OG1	2:H:191:ILE:O	2.32	0.40
2:H:219:LYS:HD2	2:H:219:LYS:C	2.46	0.40
1:A:733:LEU:HD23	1:A:761:LEU:HD23	2.03	0.40
1:A:804:TYR:O	1:A:808:ILE:HG12	2.21	0.40
1:B:483:GLN:NE2	2:C:209:GLU:O	2.54	0.40
1:B:622:LYS:HG3	1:B:623:ALA:N	2.36	0.40
1:B:681:GLN:HE21	1:B:684:ILE:N	2.20	0.40
2:C:4:VAL:O	2:C:4:VAL:HG12	2.21	0.40
1:E:225:ILE:O	1:E:229:LEU:HD13	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:228:LEU:O	1:E:229:LEU:C	2.64	0.40
1:E:332:HIS:ND1	1:E:336:TYR:HE1	2.18	0.40
1:E:452:TYR:CE1	1:E:478:ARG:HG3	2.56	0.40
1:F:364:LYS:HD2	1:F:364:LYS:HA	1.61	0.40
1:F:589:TYR:OH	1:F:651:ASP:OD1	2.38	0.40
1:F:625:TYR:C	1:F:625:TYR:HD1	2.29	0.40
1:F:767:LEU:HD13	1:F:811:PHE:CD1	2.57	0.40
1:F:862:ILE:H	1:F:862:ILE:CD1	2.28	0.40
2:H:169:GLU:C	2:H:170:ARG:O	2.56	0.40
2:H:218:ILE:HG13	2:H:220:PHE:CE1	2.56	0.40
1:A:223:TYR:HB2	1:A:226:ASN:HB3	2.03	0.40
1:A:257:THR:HG23	1:E:86:ARG:HH22	1.86	0.40
1:A:783:ALA:HB2	1:A:841:LEU:HD12	2.02	0.40
1:B:675:LYS:NZ	1:B:678:PHE:HZ	2.19	0.40
1:B:754:ARG:O	1:B:758:LEU:HG	2.21	0.40
1:E:186:LYS:HD2	1:E:188:ASP:N	2.35	0.40
1:E:338:TYR:CD2	1:E:348:ARG:HA	2.56	0.40
1:E:538:LYS:HB3	1:E:538:LYS:HE2	1.80	0.40
1:E:660:LYS:O	1:E:663:ASP:N	2.53	0.40
1:E:802:ARG:H	1:E:840:LYS:HE2	1.87	0.40
1:E:890:GLU:O	1:E:894:VAL:HG13	2.21	0.40
1:F:70:LEU:HA	1:F:70:LEU:HD23	1.71	0.40
2:G:14:LYS:HB3	2:G:20:LYS:O	2.21	0.40
2:H:23:PHE:CG	2:H:24:THR:N	2.89	0.40
1:A:109:GLN:O	1:A:109:GLN:HG2	2.21	0.40
1:A:118:HIS:HE1	1:A:138:ILE:N	2.19	0.40
1:A:491:GLN:O	1:A:495:LEU:N	2.55	0.40
1:A:595:LEU:HD12	1:A:602:SER:HB2	2.03	0.40
1:A:969:LYS:HA	1:A:969:LYS:HD3	1.83	0.40
1:B:610:GLN:HG3	1:B:613:ARG:HH21	1.87	0.40
1:B:661:ILE:HA	1:B:665:LYS:HD2	2.03	0.40
2:D:45:ILE:C	2:D:47:ASN:H	2.30	0.40
1:E:392:GLY:O	1:E:394:ILE:HG12	2.22	0.40
1:E:634:LEU:O	1:E:637:SER:OG	2.33	0.40
1:E:649:TYR:O	1:E:653:VAL:HG12	2.21	0.40
1:E:811:PHE:HD1	1:E:811:PHE:HA	1.75	0.40
1:E:998:GLU:OE2	1:E:999:ILE:HG13	2.21	0.40
1:F:47:GLY:HA3	1:F:217:GLY:C	2.47	0.40
1:F:279:GLU:OE1	1:F:279:GLU:C	2.64	0.40
1:F:605:PHE:CD2	2:G:209:GLU:HB2	2.49	0.40
1:F:616:MET:HA	1:F:619:LEU:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:720:LEU:HB2	1:F:757:TRP:CZ3	2.56	0.40
1:F:793:GLU:OE2	1:F:799:LEU:HD13	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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	981/1005 (98%)	883 (90%)	95 (10%)	3 (0%)	37	72
1	B	981/1005 (98%)	908 (93%)	71 (7%)	2 (0%)	44	78
1	E	981/1005 (98%)	867 (88%)	108 (11%)	6 (1%)	22	59
1	F	981/1005 (98%)	848 (86%)	129 (13%)	4 (0%)	30	67
2	C	147/264 (56%)	122 (83%)	25 (17%)	0	100	100
2	D	147/264 (56%)	111 (76%)	35 (24%)	1 (1%)	19	56
2	G	147/264 (56%)	116 (79%)	30 (20%)	1 (1%)	19	56
2	H	147/264 (56%)	109 (74%)	38 (26%)	0	100	100
All	All	4512/5076 (89%)	3964 (88%)	531 (12%)	17 (0%)	32	67

All (17) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	768	PRO
1	E	298	GLU
1	E	726	VAL
1	F	864	ASP
1	A	676	ILE
1	B	72	GLY
1	B	580	SER
1	E	978	HIS

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Mol	Chain	Res	Type
1	E	1002	ASN
1	F	934	ILE
1	F	958	TRP
1	E	299	ASN
1	F	874	ILE
1	A	332	HIS
2	G	216	PRO
2	D	214	LEU
1	E	237	LYS

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	901/922 (98%)	885 (98%)	16 (2%)	54	71
1	B	901/922 (98%)	880 (98%)	21 (2%)	45	65
1	E	901/922 (98%)	886 (98%)	15 (2%)	56	72
1	F	901/922 (98%)	874 (97%)	27 (3%)	36	57
2	C	130/225 (58%)	124 (95%)	6 (5%)	23	45
2	D	130/225 (58%)	129 (99%)	1 (1%)	79	85
2	G	130/225 (58%)	123 (95%)	7 (5%)	18	40
2	H	130/225 (58%)	125 (96%)	5 (4%)	28	50
All	All	4124/4588 (90%)	4026 (98%)	98 (2%)	45	63

All (98) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	238	ASP
1	A	547	ASP
1	A	550	PHE
1	A	579	SER
1	A	580	SER
1	A	581	ASP

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Mol	Chain	Res	Type
1	A	592	LEU
1	A	674	ASP
1	A	676	ILE
1	A	727	LYS
1	A	728	LEU
1	A	738	LYS
1	A	740	LEU
1	A	749	LEU
1	A	750	ASP
1	A	802	ARG
1	B	28	GLU
1	B	67	HIS
1	B	71	TYR
1	B	184	VAL
1	B	194	ASP
1	B	208	ILE
1	B	224	ASN
1	B	420	VAL
1	B	495	LEU
1	B	664	ILE
1	B	674	ASP
1	B	675	LYS
1	B	676	ILE
1	B	730	GLU
1	B	740	LEU
1	B	904	ILE
1	B	905	GLN
1	B	906	THR
1	B	960	LYS
1	B	961	ASN
1	B	965	LYS
2	C	5	ILE
2	C	68	PHE
2	C	69	ASP
2	C	70	LEU
2	C	71	GLU
2	C	169	GLU
2	D	231	MET
1	E	231	TRP
1	E	303	THR
1	E	304	LYS
1	E	312	ILE

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Mol	Chain	Res	Type
1	E	351	ASN
1	E	357	MET
1	E	419	ASP
1	E	432	ILE
1	E	467	ASN
1	E	618	LEU
1	E	631	ILE
1	E	633	GLU
1	E	634	LEU
1	E	733	LEU
1	E	1004	PHE
1	F	119	ASP
1	F	208	ILE
1	F	512	LEU
1	F	596	TYR
1	F	636	PHE
1	F	647	MET
1	F	683	LYS
1	F	711	GLN
1	F	713	ILE
1	F	724	LYS
1	F	725	TYR
1	F	726	VAL
1	F	727	LYS
1	F	827	LEU
1	F	829	GLN
1	F	862	ILE
1	F	863	ASN
1	F	864	ASP
1	F	869	ILE
1	F	874	ILE
1	F	904	ILE
1	F	905	GLN
1	F	906	THR
1	F	922	LEU
1	F	931	GLU
1	F	932	GLU
1	F	965	LYS
2	G	28	GLN
2	G	168	SER
2	G	214	LEU
2	G	233	VAL

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Mol	Chain	Res	Type
2	G	234	VAL
2	G	235	ILE
2	G	239	ARG
2	H	70	LEU
2	H	72	TRP
2	H	169	GLU
2	H	207	SER
2	H	210	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (44) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	118	HIS
1	A	133	ASN
1	A	136	ASN
1	A	263	ASN
1	A	299	ASN
1	A	493	ASN
1	A	548	ASN
1	A	609	HIS
1	A	711	GLN
1	A	765	ASN
1	B	236	GLN
1	B	263	ASN
1	B	491	GLN
1	B	521	ASN
1	B	698	GLN
1	B	939	GLN
1	B	963	ASN
1	B	992	ASN
2	C	6	GLN
2	D	194	GLN
1	E	67	HIS
1	E	89	GLN
1	E	349	HIS
1	E	404	ASN
1	E	487	GLN
1	E	491	GLN
1	E	591	ASN
1	E	610	GLN
1	E	681	GLN
1	E	790	ASN

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Mol	Chain	Res	Type
1	F	115	ASN
1	F	160	ASN
1	F	202	ASN
1	F	211	HIS
1	F	339	HIS
1	F	654	ASN
1	F	658	HIS
1	F	848	ASN
1	F	863	ASN
1	F	881	HIS
1	F	895	ASN
1	F	910	ASN
1	F	973	ASN
1	F	990	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides 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.