



wwPDB EM Map/Model Validation Report ⓘ

May 31, 2016 – 08:36 PM EDT

PDB ID : 3J2W
EMDB ID: : EMD-5577
Title : Electron cryo-microscopy of Chikungunya virus
Authors : Sun, S.; Xiang, Y.; Rossmann, M.G.
Deposited on : 2013-01-28
Resolution : 5.00 Å(reported)
Based on PDB ID : 3N43

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

MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : rb-20027674

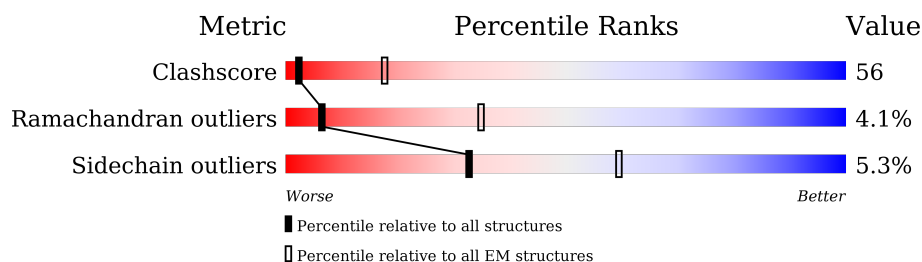
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 5.00 Å.

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







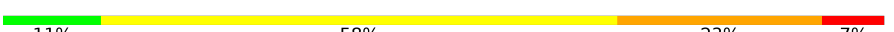
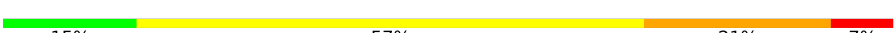
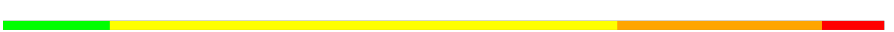




Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

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

Mol	Chain	Length	Quality of chain
1	A	393	78% 19% .
1	B	393	80% 17% .
1	C	393	79% 18% .
1	D	393	80% 17% .
2	M	336	72% 26% ..
2	N	336	65% 31% .
2	O	336	71% 25% .
3	P	336	67% 29% .
4	E	46	35% 52% 9% .

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Mol	Chain	Length	Quality of chain
4	F	46	 37% 48% 13% .
4	G	46	 37% 48% 13% .
4	H	46	 35% 54% 7% .
5	Q	81	 11% 58% 23% 7%
5	R	81	 11% 58% 23% 7%
5	S	81	 15% 57% 21% 7%
5	T	81	 12% 57% 23% 7%
6	I	149	 68% 26% 5% .
6	J	149	 62% 34% .
6	K	149	 66% 30% .
6	L	149	 71% 25% .

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 30928 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 Glycoprotein E1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	393	Total	C	N	O	S	0	0
			2992	1892	501	575	24		
1	B	393	Total	C	N	O	S	0	0
			2992	1892	501	575	24		
1	C	393	Total	C	N	O	S	0	0
			2992	1892	501	575	24		
1	D	393	Total	C	N	O	S	0	0
			2992	1892	501	575	24		

- Molecule 2 is a protein called Glycoprotein E2.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	M	336	Total	C	N	O	S	0	0
			2650	1653	480	497	20		
2	N	336	Total	C	N	O	S	0	0
			2650	1653	480	497	20		
2	O	336	Total	C	N	O	S	0	0
			2650	1653	480	497	20		

- Molecule 3 is a protein called Glycoprotein E2.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	P	336	Total	C	N	O	S	0	0
			2650	1652	480	497	21		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
P	3842	MET	LEU	CONFLICT	UNP Q1H8W5

- Molecule 4 is a protein called Glycoprotein E1.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	E	46	Total	C	N	O	S	0	0
			336	218	57	59	2		
4	F	46	Total	C	N	O	S	0	0
			336	218	57	59	2		
4	G	46	Total	C	N	O	S	0	0
			336	218	57	59	2		
4	H	46	Total	C	N	O	S	0	0
			336	218	57	59	2		

- Molecule 5 is a protein called Glycoprotein E2.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	Q	81	Total	C	N	O	S	0	0
			613	396	101	108	8		
5	R	81	Total	C	N	O	S	0	0
			613	396	101	108	8		
5	S	81	Total	C	N	O	S	0	0
			613	396	101	108	8		
5	T	81	Total	C	N	O	S	0	0
			613	396	101	108	8		

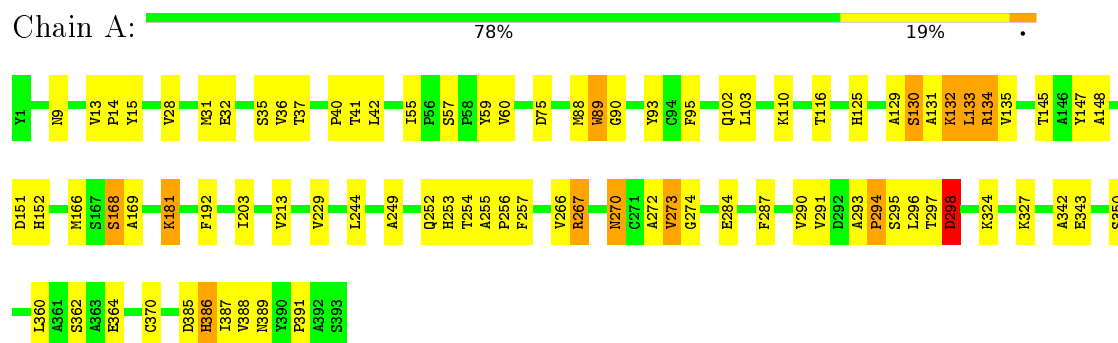
- Molecule 6 is a protein called Capsid protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	I	149	Total	C	N	O	S	0	0
			1141	723	201	211	6		
6	J	149	Total	C	N	O	S	0	0
			1141	723	201	211	6		
6	K	149	Total	C	N	O	S	0	0
			1141	723	201	211	6		
6	L	149	Total	C	N	O	S	0	0
			1141	723	201	211	6		

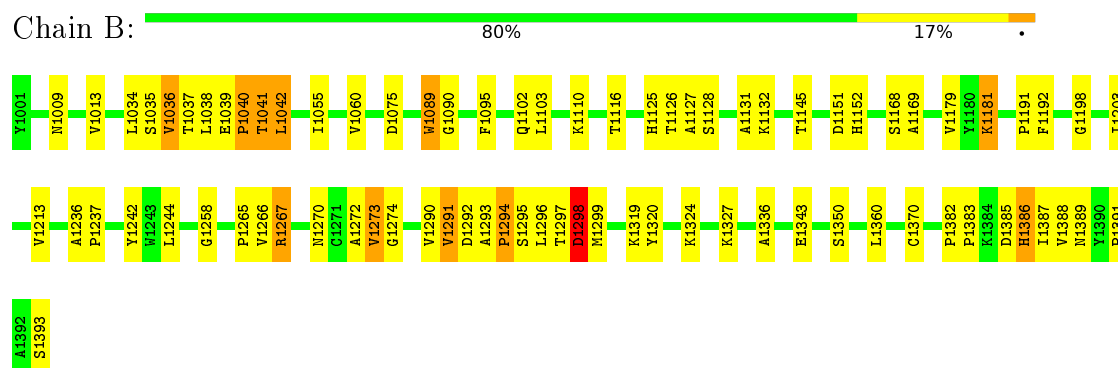
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. 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.

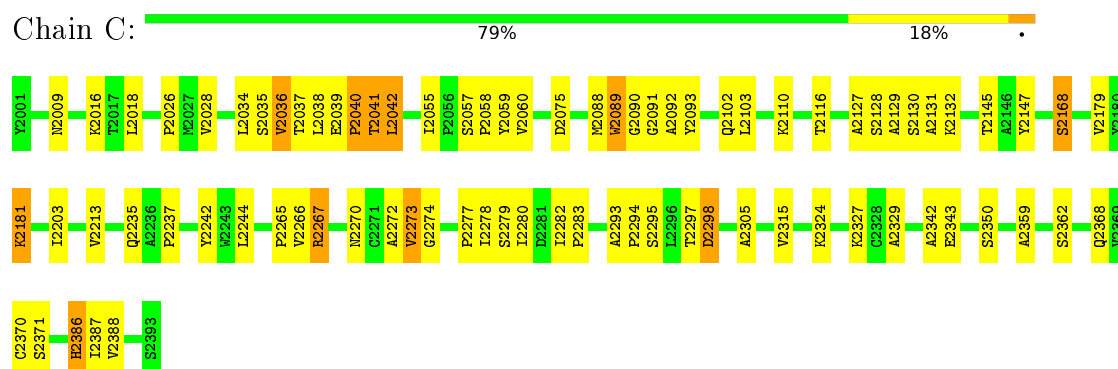
• Molecule 1: Glycoprotein E1



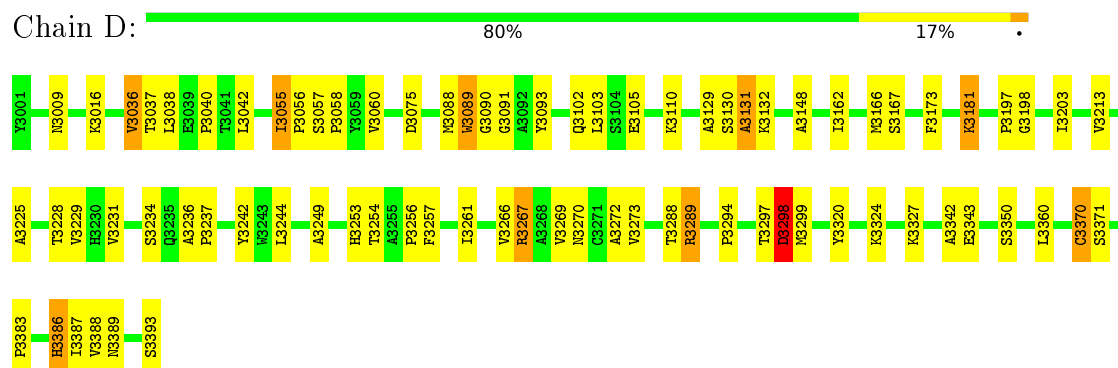
• Molecule 1: Glycoprotein E1



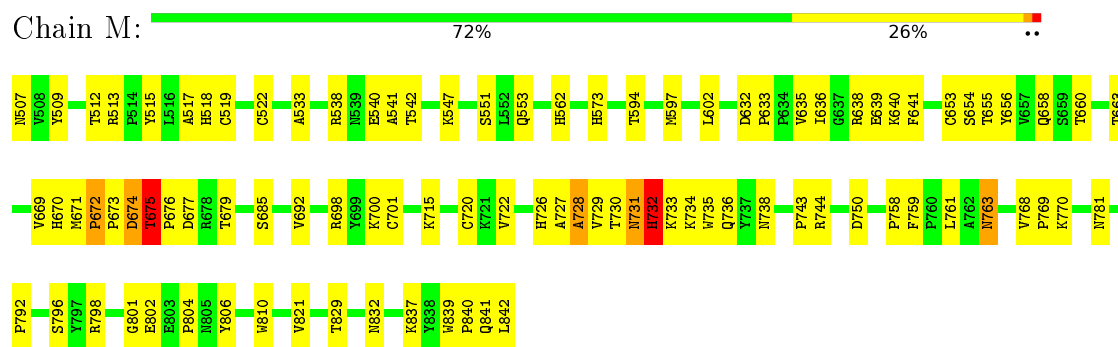
• Molecule 1: Glycoprotein E1



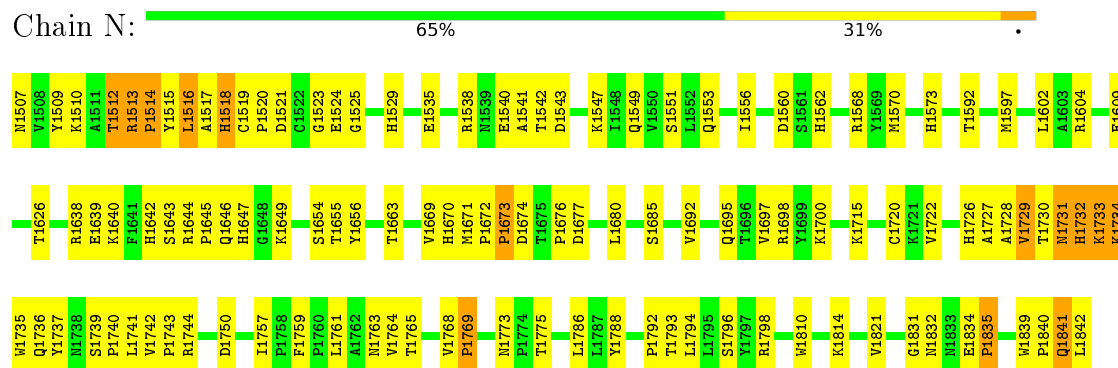
- Molecule 1: Glycoprotein E1



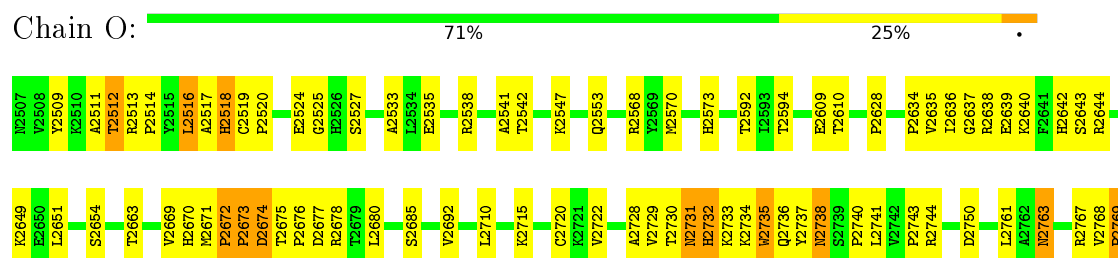
- Molecule 2: Glycoprotein E2

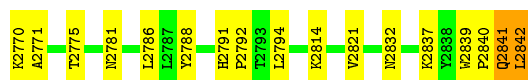


- Molecule 2: Glycoprotein E2



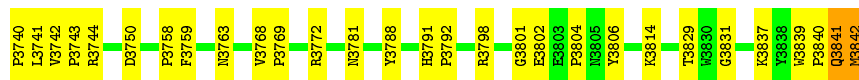
- Molecule 2: Glycoprotein E2





• Molecule 3: Glycoprotein E2

Chain P: 67% 29% .



• Molecule 4: Glycoprotein E1

Chain E: 35% 52% 9% .



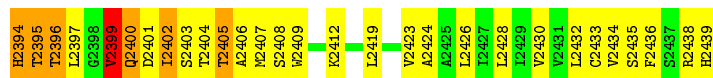
• Molecule 4: Glycoprotein E1

Chain F: 37% 48% 13% .



• Molecule 4: Glycoprotein E1

Chain G: 37% 48% 13% .



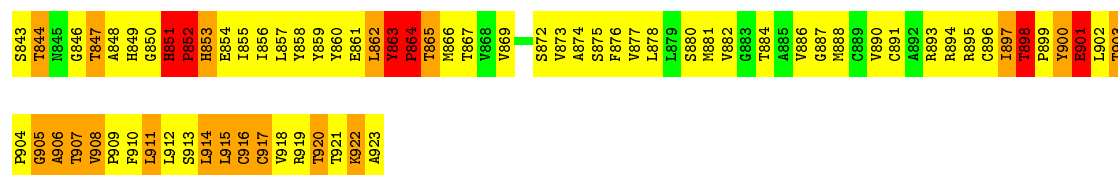
• Molecule 4: Glycoprotein E1

Chain H: 35% 54% 7% .



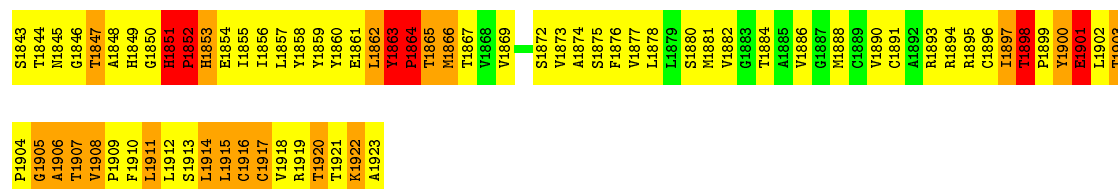
• Molecule 5: Glycoprotein E2

Chain Q: 11% 58% 23% 7% .



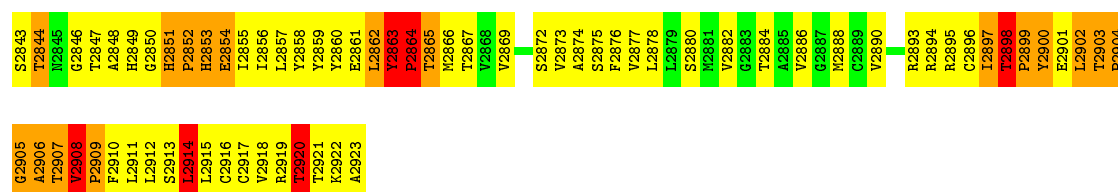
• Molecule 5: Glycoprotein E2

Chain R: 11% 58% 23% 7%



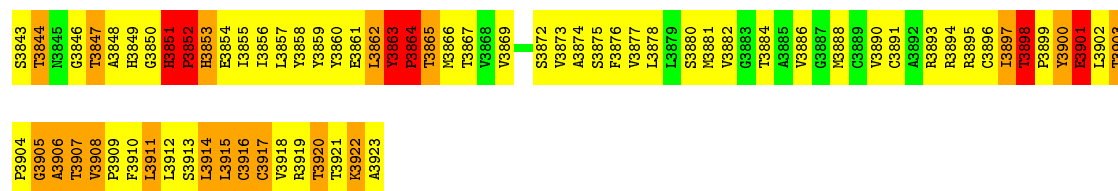
• Molecule 5: Glycoprotein E2

Chain S: 15% 57% 21% 7%



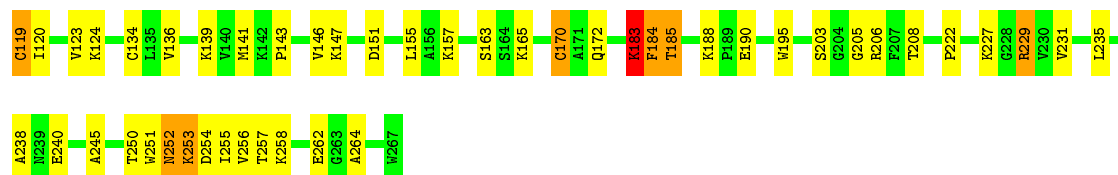
• Molecule 5: Glycoprotein E2

Chain T: 12% 57% 23% 7%



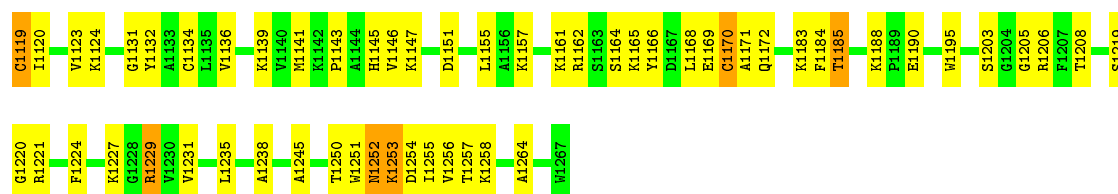
• Molecule 6: Capsid protein

Chain I: 68% 26% 5%

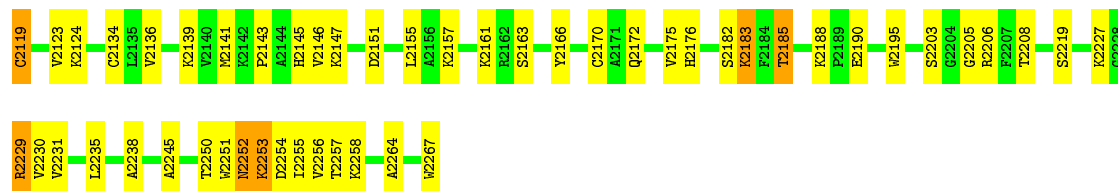


• Molecule 6: Capsid protein

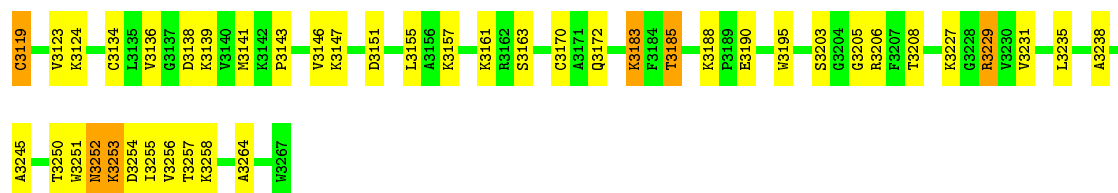
Chain J: 62% 34%



• Molecule 6: Capsid protein



• Molecule 6: Capsid protein



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, I	Depositor
Number of particles used	36236	Depositor
Resolution determination method	FSC at 0.5 cut-off	Depositor
CTF correction method	each particle	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	Not provided	Depositor
Maximum defocus (nm)	Not provided	Depositor
Magnification	59000	Depositor
Image detector	film	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 2$	RMSZ	# $ Z > 2$
1	A	0.57	1/3068 (0.0%)	0.73	2/4184 (0.0%)
1	B	0.35	0/3067	0.54	0/4181
1	C	0.39	1/3068 (0.0%)	0.66	3/4184 (0.1%)
1	D	0.52	1/3069 (0.0%)	0.57	3/4187 (0.1%)
2	M	0.35	0/2721	0.53	0/3704
2	N	0.34	0/2721	0.54	0/3704
2	O	0.34	0/2721	0.54	0/3704
3	P	0.34	0/2721	0.53	0/3703
4	E	0.20	0/340	0.38	0/464
4	F	0.20	0/339	0.38	0/461
4	G	0.20	0/339	0.38	0/461
4	H	0.20	0/340	0.38	0/464
5	Q	1.01	2/626 (0.3%)	1.94	7/855 (0.8%)
5	R	1.01	2/626 (0.3%)	2.00	7/855 (0.8%)
5	S	1.19	4/614 (0.7%)	2.35	12/819 (1.5%)
5	T	1.01	2/626 (0.3%)	1.94	7/855 (0.8%)
6	I	0.79	2/1169 (0.2%)	1.56	5/1577 (0.3%)
6	J	0.78	2/1168 (0.2%)	0.90	2/1574 (0.1%)
6	K	0.80	3/1169 (0.3%)	1.20	5/1577 (0.3%)
6	L	0.83	3/1169 (0.3%)	0.95	5/1577 (0.3%)
All	All	0.56	23/31681 (0.1%)	0.89	58/43090 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	C	0	1
5	Q	0	1
5	R	0	1
5	S	0	4
5	T	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
6	I	0	1
6	L	0	1
All	All	0	10

All (23) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	168	SER	C-N	25.07	1.91	1.34
5	R	1862	LEU	C-N	22.22	1.85	1.34
5	S	2862	LEU	C-N	22.18	1.85	1.34
5	T	3862	LEU	C-N	22.18	1.85	1.34
5	Q	862	LEU	C-N	22.17	1.85	1.34
1	D	3131	ALA	C-N	21.02	1.82	1.34
6	J	1119	CYS	CB-SG	-14.06	1.58	1.82
6	I	119	CYS	CB-SG	-14.05	1.58	1.82
6	K	2119	CYS	CB-SG	-14.02	1.58	1.82
6	L	3119	CYS	CB-SG	-14.00	1.58	1.82
6	I	134	CYS	CB-SG	-12.01	1.61	1.82
6	L	3134	CYS	CB-SG	-12.01	1.61	1.82
6	K	2134	CYS	CB-SG	-12.00	1.61	1.82
6	J	1134	CYS	CB-SG	-11.93	1.61	1.82
5	S	2914	LEU	C-N	11.16	1.59	1.34
5	S	2920	THR	C-N	-9.96	1.11	1.34
6	L	3183	LYS	C-N	9.92	1.56	1.34
5	R	1863	TYR	C-N	9.79	1.52	1.34
5	S	2863	TYR	C-N	9.78	1.52	1.34
5	T	3863	TYR	C-N	9.76	1.52	1.34
5	Q	863	TYR	C-N	9.74	1.52	1.34
1	C	2168	SER	C-N	-9.72	1.11	1.34
6	K	2183	LYS	C-N	6.47	1.49	1.34

All (58) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	I	183	LYS	O-C-N	-38.33	61.38	122.70
5	S	2914	LEU	O-C-N	-35.04	66.64	122.70
5	R	1862	LEU	O-C-N	-31.77	71.86	122.70
5	Q	862	LEU	O-C-N	-31.75	71.90	122.70
5	T	3862	LEU	O-C-N	-31.74	71.92	122.70
5	S	2862	LEU	O-C-N	-31.74	71.92	122.70
5	R	1851	HIS	C-N-CD	-29.78	55.08	120.60
5	T	3851	HIS	C-N-CD	-26.20	62.95	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	Q	851	HIS	C-N-CD	-26.19	62.97	120.60
6	I	183	LYS	CA-C-N	25.17	172.57	117.20
1	A	168	SER	CA-C-N	-24.52	63.25	117.20
6	K	2183	LYS	O-C-N	23.01	159.52	122.70
6	I	183	LYS	C-N-CA	21.55	175.57	121.70
1	A	168	SER	C-N-CA	-21.48	68.00	121.70
5	R	1863	TYR	C-N-CD	-21.17	74.02	120.60
5	S	2863	TYR	C-N-CD	-21.15	74.08	120.60
5	T	3863	TYR	C-N-CD	-21.14	74.09	120.60
5	Q	863	TYR	C-N-CD	-21.14	74.10	120.60
5	S	2862	LEU	CA-C-N	19.92	161.02	117.20
5	R	1862	LEU	CA-C-N	19.89	160.95	117.20
5	Q	862	LEU	CA-C-N	19.88	160.93	117.20
5	T	3862	LEU	CA-C-N	19.86	160.90	117.20
1	C	2168	SER	O-C-N	-19.55	91.42	122.70
5	Q	863	TYR	O-C-N	-19.35	84.34	121.10
5	R	1863	TYR	O-C-N	-19.32	84.40	121.10
5	S	2863	TYR	O-C-N	-19.31	84.41	121.10
5	T	3863	TYR	O-C-N	-19.30	84.42	121.10
6	K	2183	LYS	CA-C-N	-17.10	79.59	117.20
5	S	2920	THR	O-C-N	-16.60	96.14	122.70
6	K	2134	CYS	CA-CB-SG	15.10	141.18	114.00
6	L	3134	CYS	CA-CB-SG	15.09	141.17	114.00
6	I	134	CYS	CA-CB-SG	15.07	141.13	114.00
6	J	1134	CYS	CA-CB-SG	15.06	141.11	114.00
5	S	2914	LEU	CA-C-N	-14.18	86.00	117.20
6	K	2183	LYS	C-N-CA	-13.96	86.80	121.70
1	C	2168	SER	C-N-CA	11.28	149.91	121.70
5	S	2908	VAL	C-N-CD	-11.22	95.92	120.60
1	C	2168	SER	CA-C-N	10.55	140.41	117.20
5	S	2920	THR	CA-C-N	8.92	136.82	117.20
5	T	3864	PRO	CA-N-CD	-8.58	99.49	111.50
5	S	2864	PRO	CA-N-CD	-8.56	99.51	111.50
5	T	3852	PRO	CA-N-CD	-8.56	99.51	111.50
5	Q	852	PRO	CA-N-CD	-8.56	99.52	111.50
5	R	1852	PRO	CA-N-CD	-8.56	99.52	111.50
5	Q	864	PRO	CA-N-CD	-8.56	99.52	111.50
5	R	1864	PRO	CA-N-CD	-8.55	99.53	111.50
5	S	2909	PRO	CA-N-CD	-8.54	99.55	111.50
1	D	3036	VAL	O-C-N	8.39	136.12	122.70
6	J	1119	CYS	CA-CB-SG	8.39	129.09	114.00
6	I	119	CYS	CA-CB-SG	8.36	129.04	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	L	3119	CYS	CA-CB-SG	8.34	129.01	114.00
6	K	2119	CYS	CA-CB-SG	8.33	129.00	114.00
6	L	3183	LYS	CA-C-N	-7.47	100.77	117.20
6	L	3183	LYS	C-N-CA	-7.03	104.11	121.70
6	L	3183	LYS	O-C-N	6.99	133.88	122.70
1	D	3036	VAL	CA-C-N	-6.82	102.20	117.20
1	D	3036	VAL	C-N-CA	-5.25	108.58	121.70
5	S	2920	THR	C-N-CA	5.04	134.30	121.70

There are no chirality outliers.

All (10) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	C	2168	SER	Mainchain
6	I	183	LYS	Mainchain
6	L	3183	LYS	Mainchain
5	Q	863	TYR	Mainchain
5	R	1863	TYR	Mainchain
5	S	2863	TYR	Mainchain
5	S	2914	LEU	Mainchain
5	S	2920	THR	Mainchain,Peptide
5	T	3863	TYR	Mainchain

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2992	0	2890	212	0
1	B	2992	0	2894	157	0
1	C	2992	0	2890	207	0
1	D	2992	0	2892	260	0
2	M	2650	0	2571	205	0
2	N	2650	0	2566	405	0
2	O	2650	0	2571	277	0
3	P	2650	0	2566	421	0
4	E	336	0	360	138	0
4	F	336	0	359	124	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	G	336	0	359	93	0
4	H	336	0	361	105	0
5	Q	613	0	623	322	0
5	R	613	0	625	417	0
5	S	613	0	611	390	0
5	T	613	0	625	329	0
6	I	1141	0	1126	78	0
6	J	1141	0	1123	126	0
6	K	1141	0	1124	65	0
6	L	1141	0	1126	59	0
All	All	30928	0	30262	3436	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 56.

All (3436) 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)
5:S:2909:PRO:HD3	5:S:2910:PHE:CD2	1.22	1.69
2:N:1509:TYR:HB2	2:N:1562:HIS:CE1	1.16	1.65
2:N:1602:LEU:HD11	2:N:1759:PHE:CD2	1.17	1.65
2:O:2573:HIS:CE1	2:O:2729:VAL:HG21	1.31	1.61
1:C:2362:SER:HB3	4:G:2402:ILE:CD1	1.18	1.60
4:F:1428:LEU:HD13	5:R:1891:CYS:CB	1.20	1.58
3:P:3509:TYR:CG	3:P:3556:ILE:HG12	1.09	1.57
1:A:291:VAL:CG2	1:C:2315:VAL:CG2	1.79	1.57
1:D:3360:LEU:CD2	4:H:3402:ILE:HD11	1.10	1.57
1:D:3360:LEU:HD22	4:H:3402:ILE:CD1	1.16	1.57
2:N:1573:HIS:CE1	2:N:1695:GLN:HE22	1.17	1.56
5:S:2906:ALA:HB1	5:S:2909:PRO:CG	1.13	1.56
2:N:1645:PRO:HG3	2:N:1769:PRO:CD	1.10	1.56
2:O:2527:SER:CB	3:P:3646:GLN:CG	1.76	1.56
1:C:2387:ILE:HG23	2:O:2840:PRO:CA	1.37	1.55
4:F:1428:LEU:CD1	5:R:1891:CYS:HB3	1.33	1.55
2:O:2527:SER:CB	3:P:3646:GLN:HG3	1.17	1.54
3:P:3510:LYS:HA	3:P:3560:ASP:CB	1.08	1.54
1:C:2362:SER:CB	4:G:2402:ILE:HD12	1.08	1.54
4:H:3402:ILE:CG2	4:H:3403:SER:HA	1.38	1.53
4:E:402:ILE:CG2	4:E:403:SER:HA	1.38	1.53
5:S:2909:PRO:CD	5:S:2910:PHE:CD2	1.77	1.53
2:N:1788:TYR:CG	1:D:3237:PRO:HG3	1.41	1.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2387:ILE:CG2	2:O:2840:PRO:HA	1.40	1.51
5:S:2906:ALA:HB1	5:S:2909:PRO:CD	1.38	1.51
3:P:3510:LYS:CA	3:P:3560:ASP:HB3	1.36	1.51
4:F:1428:LEU:CD1	5:R:1891:CYS:CB	1.82	1.51
2:N:1645:PRO:CG	2:N:1769:PRO:HD3	1.08	1.50
2:M:673:PRO:CD	2:M:736:GLN:NE2	1.71	1.50
2:N:1638:ARG:NE	2:N:1794:LEU:CD2	1.73	1.49
5:S:2915:LEU:C	5:S:2916:CYS:HB2	1.26	1.49
5:S:2912:LEU:N	5:S:2913:SER:CB	1.76	1.48
1:C:2028:VAL:CG2	1:C:2329:ALA:HB1	1.41	1.48
2:N:1604:ARG:CD	3:P:3524:GLU:HB3	1.45	1.47
1:C:2242:TYR:HD1	3:P:3814:LYS:NZ	0.97	1.47
2:O:2527:SER:HB2	3:P:3646:GLN:CD	1.30	1.46
2:N:1647:HIS:CG	1:D:3225:ALA:HB1	1.50	1.46
2:N:1535:GLU:CD	2:N:1741:LEU:HD12	1.31	1.46
1:C:2116:THR:HG23	2:O:2763:ASN:ND2	1.21	1.46
5:T:3856:ILE:HA	5:T:3859:TYR:CE2	1.51	1.46
1:A:362:SER:CB	4:E:402:ILE:HG21	0.99	1.45
2:N:1604:ARG:HD3	3:P:3524:GLU:CB	1.46	1.45
2:N:1573:HIS:CE1	2:N:1695:GLN:NE2	1.79	1.44
3:P:3509:TYR:CZ	3:P:3556:ILE:HD11	1.52	1.44
5:R:1856:ILE:HA	5:R:1859:TYR:CE2	1.51	1.44
2:N:1672:PRO:HB2	2:N:1731:ASN:CG	1.15	1.44
5:Q:906:ALA:CB	5:Q:909:PRO:HD2	1.45	1.44
5:S:2906:ALA:CB	5:S:2909:PRO:HG3	1.45	1.44
5:Q:856:ILE:HA	5:Q:859:TYR:CE2	1.51	1.44
5:Q:918:VAL:CG1	5:Q:919:ARG:HA	1.47	1.44
2:N:1788:TYR:CG	1:D:3237:PRO:CG	2.00	1.44
5:S:2911:LEU:CD2	5:S:2913:SER:OG	1.65	1.43
5:R:1900:TYR:CD1	6:J:1162:ARG:O	1.69	1.43
5:Q:913:SER:HB2	5:Q:917:CYS:SG	1.57	1.43
5:S:2912:LEU:N	5:S:2913:SER:HB3	1.12	1.43
5:R:1906:ALA:CB	5:R:1909:PRO:HD2	1.45	1.42
5:T:3913:SER:HB2	5:T:3917:CYS:SG	1.57	1.42
5:T:3918:VAL:CG1	5:T:3919:ARG:HA	1.48	1.42
3:P:3672:PRO:HB3	3:P:3736:GLN:NE2	1.31	1.42
5:S:2915:LEU:O	5:S:2916:CYS:CB	1.66	1.42
5:T:3906:ALA:CB	5:T:3909:PRO:HD2	1.45	1.42
1:B:1385:ASP:N	2:N:1841:GLN:HE21	1.04	1.42
5:R:1913:SER:HB2	5:R:1917:CYS:SG	1.57	1.42
5:S:2907:THR:C	5:S:2909:PRO:HD3	1.14	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:T:3906:ALA:HB2	5:T:3909:PRO:CD	1.50	1.42
1:C:2242:TYR:CD1	3:P:3814:LYS:NZ	1.84	1.41
2:N:1602:LEU:HD11	2:N:1759:PHE:CG	1.52	1.41
5:S:2917:CYS:N	5:S:2918:VAL:HG23	1.29	1.41
4:F:1399:VAL:CB	4:F:1400:GLN:HA	1.48	1.41
5:S:2901:GLU:HA	5:S:2902:LEU:CG	1.46	1.41
2:N:1573:HIS:HE1	2:N:1695:GLN:NE2	0.93	1.41
5:R:1918:VAL:CG1	5:R:1919:ARG:HA	1.48	1.41
5:R:1906:ALA:HB2	5:R:1909:PRO:CD	1.50	1.41
5:R:1898:THR:HG23	6:J:1165:LYS:CD	1.48	1.41
4:E:439:HIS:NE2	6:I:165:LYS:CD	1.84	1.41
2:N:1549:GLN:NE2	2:N:1737:TYR:CE2	1.83	1.40
3:P:3509:TYR:CG	3:P:3556:ILE:CG1	2.01	1.40
2:N:1638:ARG:CZ	2:N:1794:LEU:HD21	1.52	1.39
5:R:1849:HIS:HB3	5:R:1850:GLY:CA	1.52	1.39
2:M:639:GLU:HB2	2:M:832:ASN:ND2	1.22	1.39
5:Q:906:ALA:HB2	5:Q:909:PRO:CD	1.50	1.38
1:A:362:SER:N	4:E:402:ILE:HD12	1.11	1.38
2:O:2527:SER:HB2	3:P:3646:GLN:NE2	1.38	1.38
1:A:362:SER:O	4:E:402:ILE:CD1	1.70	1.38
1:C:2362:SER:O	4:G:2402:ILE:HD11	1.21	1.37
4:E:439:HIS:CE1	6:I:165:LYS:HD2	1.56	1.37
2:N:1638:ARG:NE	2:N:1794:LEU:HD23	1.04	1.37
2:N:1602:LEU:CD1	2:N:1759:PHE:CD2	2.06	1.37
4:G:2399:VAL:CB	4:G:2400:GLN:HA	1.50	1.37
1:A:291:VAL:HG22	1:C:2315:VAL:CG2	1.43	1.37
2:N:1647:HIS:ND1	1:D:3225:ALA:HB1	1.40	1.37
5:T:3902:LEU:HD13	6:L:3138:ASP:CG	1.37	1.37
4:E:399:VAL:CB	4:E:400:GLN:HA	1.50	1.36
1:D:3088:MET:CB	3:P:3676:PRO:HD2	1.54	1.36
5:S:2901:GLU:CA	5:S:2902:LEU:HG	1.54	1.36
1:B:1237:PRO:HG3	2:O:2788:TYR:CG	1.60	1.36
2:N:1547:LYS:NZ	2:N:1757:ILE:HD12	1.34	1.36
5:S:2903:THR:HB	5:S:2904:PRO:CD	1.50	1.36
5:S:2910:PHE:CE1	5:S:2921:THR:HB	1.58	1.36
5:S:2849:HIS:HB3	5:S:2850:GLY:CA	1.54	1.35
4:F:1406:ALA:HB3	5:R:1849:HIS:CD2	1.60	1.35
2:N:1638:ARG:CD	2:N:1794:LEU:HD23	1.54	1.35
1:A:291:VAL:CG2	1:C:2315:VAL:HG21	0.89	1.35
4:F:1399:VAL:HG12	4:F:1400:GLN:C	1.46	1.35
2:N:1638:ARG:CG	2:N:1794:LEU:CD2	2.03	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:T:3902:LEU:CD1	6:L:3138:ASP:OD1	1.75	1.35
5:Q:918:VAL:HG13	5:Q:919:ARG:CA	1.56	1.35
2:N:1602:LEU:CD1	2:N:1759:PHE:CE2	2.09	1.34
5:R:1898:THR:CG2	6:J:1165:LYS:HD2	1.57	1.34
2:O:2841:GLN:CD	2:O:2842:LEU:HD23	1.46	1.34
5:S:2900:TYR:O	6:K:2161:LYS:HD2	1.18	1.34
5:Q:849:HIS:HB3	5:Q:850:GLY:CA	1.49	1.34
2:N:1638:ARG:CZ	2:N:1794:LEU:CD2	2.02	1.34
4:H:3421:VAL:HG21	5:T:3884:THR:CB	1.56	1.34
5:R:1902:LEU:CD1	6:J:1170:CYS:HB2	1.57	1.34
5:R:1918:VAL:HG13	5:R:1919:ARG:CA	1.56	1.34
5:T:3918:VAL:HG13	5:T:3919:ARG:CA	1.56	1.33
1:A:168:SER:C	1:A:169:ALA:HA	1.43	1.33
2:N:1524:GLU:OE2	2:O:2594:THR:CG2	1.75	1.33
4:G:2399:VAL:HG12	4:G:2400:GLN:C	1.49	1.33
2:N:1647:HIS:ND1	1:D:3225:ALA:CB	1.90	1.32
3:P:3672:PRO:HB3	3:P:3736:GLN:CD	1.46	1.32
1:D:3131:ALA:C	1:D:3132:LYS:N	1.82	1.32
5:S:2856:ILE:O	5:S:2859:TYR:HD2	1.03	1.32
2:N:1509:TYR:CB	2:N:1562:HIS:CE1	2.10	1.32
1:A:362:SER:HB3	4:E:402:ILE:CG2	0.84	1.32
1:C:2028:VAL:HG23	1:C:2329:ALA:CB	1.59	1.32
5:R:1916:CYS:HA	5:R:1917:CYS:C	1.42	1.31
1:D:3057:SER:CB	3:P:3742:VAL:O	1.77	1.31
5:S:2856:ILE:HA	5:S:2859:TYR:CE2	1.63	1.31
5:S:2906:ALA:CB	5:S:2909:PRO:CG	2.04	1.31
5:S:2847:THR:HB	5:S:2854:GLU:CD	1.49	1.31
5:T:3849:HIS:HB3	5:T:3850:GLY:CA	1.56	1.31
4:H:3399:VAL:HG12	4:H:3400:GLN:C	1.48	1.31
2:N:1788:TYR:CD2	1:D:3237:PRO:CG	2.11	1.31
4:H:3402:ILE:HG22	4:H:3403:SER:CA	1.61	1.31
4:E:402:ILE:HG22	4:E:403:SER:CA	1.61	1.31
5:S:2916:CYS:SG	5:S:2919:ARG:N	2.04	1.31
1:A:125:HIS:CG	1:B:1126:THR:HG21	1.66	1.30
4:E:399:VAL:HG12	4:E:400:GLN:C	1.48	1.30
5:R:1902:LEU:CD1	6:J:1171:ALA:N	1.93	1.30
2:M:639:GLU:OE2	2:M:832:ASN:HB2	1.29	1.30
4:E:439:HIS:NE2	6:I:165:LYS:HD2	1.39	1.30
5:Q:862:LEU:C	5:Q:863:TYR:N	1.85	1.30
5:S:2862:LEU:C	5:S:2863:TYR:N	1.85	1.30
2:N:1788:TYR:CD2	1:D:3237:PRO:HG3	1.65	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:T:3862:LEU:C	5:T:3863:TYR:N	1.85	1.30
3:P:3510:LYS:CA	3:P:3560:ASP:CB	1.97	1.30
5:R:1862:LEU:C	5:R:1863:TYR:N	1.85	1.29
2:M:672:PRO:HB3	2:M:736:GLN:CB	1.60	1.29
5:R:1902:LEU:HD12	6:J:1170:CYS:CB	1.63	1.29
5:S:2911:LEU:CG	5:S:2913:SER:OG	1.81	1.29
2:N:1535:GLU:OE2	2:N:1741:LEU:HD12	1.24	1.29
1:D:3387:ILE:CG2	3:P:3840:PRO:HA	1.59	1.29
2:O:2638:ARG:N	2:O:2832:ASN:HD21	1.30	1.28
5:S:2917:CYS:O	5:S:2918:VAL:HG21	1.10	1.28
4:E:402:ILE:CB	4:E:403:SER:HA	1.60	1.28
1:B:1090:GLY:O	2:N:1726:HIS:HD2	1.00	1.28
2:N:1525:GLY:O	2:O:2644:ARG:CG	1.81	1.28
1:D:3056:PRO:O	3:P:3740:PRO:HA	1.31	1.28
4:H:3399:VAL:CB	4:H:3400:GLN:HA	1.50	1.27
2:O:2639:GLU:HA	2:O:2791:HIS:NE2	1.47	1.27
3:P:3509:TYR:CE2	3:P:3556:ILE:HD11	1.70	1.27
1:D:3088:MET:HB2	3:P:3676:PRO:CD	1.63	1.27
4:F:1428:LEU:CD1	5:R:1891:CYS:SG	2.22	1.27
5:S:2906:ALA:CB	5:S:2909:PRO:CD	2.11	1.27
5:S:2915:LEU:C	5:S:2916:CYS:CB	1.97	1.27
5:S:2910:PHE:O	5:S:2911:LEU:HG	1.30	1.27
5:T:3849:HIS:CB	5:T:3850:GLY:HA2	1.61	1.27
4:F:1421:VAL:CG2	5:R:1884:THR:HB	1.64	1.27
2:O:2573:HIS:NE2	2:O:2729:VAL:CG2	1.97	1.27
3:P:3507:ASN:OD1	3:P:3561:SER:HA	1.17	1.27
1:A:168:SER:C	1:A:169:ALA:CA	1.92	1.27
4:E:432:LEU:HD11	5:Q:894:ARG:NE	1.47	1.27
2:M:672:PRO:HB2	2:M:736:GLN:NE2	1.49	1.26
1:A:151:ASP:OD2	1:B:1191:PRO:CA	1.83	1.26
3:P:3509:TYR:CE1	3:P:3556:ILE:HD13	1.70	1.26
5:T:3849:HIS:CB	5:T:3850:GLY:CA	2.12	1.26
1:A:291:VAL:HG21	1:C:2315:VAL:CG2	1.52	1.26
1:A:362:SER:C	4:E:402:ILE:HD13	1.53	1.26
5:Q:856:ILE:O	5:Q:859:TYR:HD2	1.17	1.26
5:Q:922:LYS:HA	5:Q:923:ALA:C	1.54	1.26
1:A:387:ILE:HD11	2:M:781:ASN:OD1	1.35	1.26
1:B:1389:ASN:HA	2:N:1839:TRP:CZ3	1.71	1.26
2:M:573:HIS:CE1	2:M:729:VAL:HB	1.69	1.25
5:T:3856:ILE:O	5:T:3859:TYR:HD2	1.17	1.25
2:M:672:PRO:CB	2:M:736:GLN:HB2	1.65	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:2903:THR:CB	5:S:2904:PRO:HD2	1.62	1.25
2:O:2527:SER:CB	3:P:3646:GLN:CD	1.93	1.25
1:C:2387:ILE:HA	2:O:2841:GLN:N	1.47	1.25
2:N:1647:HIS:CE1	1:D:3225:ALA:HB1	1.72	1.25
4:F:1409:TRP:NE1	5:R:1851:HIS:CE1	2.04	1.25
1:B:1090:GLY:O	2:N:1726:HIS:CD2	1.88	1.25
4:H:3402:ILE:CB	4:H:3403:SER:HA	1.60	1.25
3:P:3509:TYR:HB3	3:P:3556:ILE:CG2	1.67	1.25
3:P:3509:TYR:CE1	3:P:3556:ILE:CD1	2.20	1.24
5:S:2896:CYS:O	5:S:2899:PRO:HG2	1.36	1.24
4:F:1421:VAL:HG21	5:R:1884:THR:CB	1.67	1.24
5:R:1922:LYS:HA	5:R:1923:ALA:C	1.54	1.24
1:C:2388:VAL:O	2:O:2839:TRP:O	1.54	1.24
1:D:3057:SER:HB3	3:P:3742:VAL:O	1.09	1.24
4:H:3421:VAL:CG2	5:T:3884:THR:HB	1.65	1.23
3:P:3509:TYR:CD2	3:P:3556:ILE:HG12	1.70	1.23
2:N:1638:ARG:CG	2:N:1794:LEU:HD22	1.63	1.23
2:O:2573:HIS:CE1	2:O:2729:VAL:CG2	2.21	1.23
2:M:673:PRO:HD2	2:M:736:GLN:NE2	0.91	1.23
5:S:2901:GLU:HA	5:S:2902:LEU:CB	1.64	1.23
1:D:3058:PRO:HD3	3:P:3740:PRO:O	1.29	1.23
2:O:2527:SER:HB3	3:P:3646:GLN:CG	1.44	1.22
1:C:2116:THR:CG2	2:O:2763:ASN:ND2	2.03	1.22
1:A:125:HIS:CD2	1:B:1126:THR:HG21	1.74	1.22
1:B:1385:ASP:H	2:N:1841:GLN:NE2	1.36	1.22
2:N:1573:HIS:HE1	2:N:1695:GLN:CD	1.42	1.22
5:Q:916:CYS:HA	5:Q:917:CYS:C	1.42	1.22
4:F:1421:VAL:CB	5:R:1884:THR:HB	1.68	1.22
5:S:2900:TYR:O	6:K:2161:LYS:CD	1.87	1.22
2:N:1672:PRO:HB2	2:N:1731:ASN:OD1	1.07	1.22
5:R:1906:ALA:HA	5:R:1907:THR:C	1.55	1.22
5:S:2848:ALA:HA	5:S:2858:TYR:OH	1.35	1.22
4:G:2428:LEU:CD2	5:S:2895:ARG:HE	1.53	1.22
5:T:3906:ALA:HA	5:T:3907:THR:C	1.55	1.21
2:O:2573:HIS:NE2	2:O:2729:VAL:HG21	1.54	1.21
5:T:3916:CYS:HA	5:T:3917:CYS:C	1.42	1.21
2:N:1672:PRO:CB	2:N:1731:ASN:CG	2.07	1.21
5:S:2910:PHE:O	5:S:2918:VAL:O	1.59	1.21
2:N:1602:LEU:HD11	2:N:1759:PHE:CE2	1.68	1.21
2:N:1672:PRO:CB	2:N:1731:ASN:OD1	1.88	1.21
5:Q:902:LEU:HD13	6:I:139:LYS:CD	1.70	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1640:LYS:O	2:N:1792:PRO:HD2	1.41	1.21
5:R:1856:ILE:O	5:R:1859:TYR:HD2	1.17	1.21
5:S:2917:CYS:N	5:S:2918:VAL:CG2	2.02	1.21
1:A:192:PHE:O	1:B:1151:ASP:O	1.59	1.21
1:A:362:SER:N	4:E:402:ILE:CD1	2.03	1.21
5:R:1902:LEU:HD11	6:J:1171:ALA:N	1.48	1.21
2:N:1644:ARG:NH1	3:P:3527:SER:CB	2.03	1.21
2:N:1638:ARG:HG2	2:N:1794:LEU:CD2	1.67	1.20
3:P:3507:ASN:OD1	3:P:3561:SER:CA	1.90	1.20
1:A:362:SER:H	4:E:402:ILE:CD1	1.54	1.20
5:S:2917:CYS:O	5:S:2918:VAL:CG2	1.87	1.20
1:A:256:PRO:HB3	2:M:802:GLU:O	1.37	1.20
5:T:3902:LEU:HD13	6:L:3138:ASP:OD1	1.04	1.20
3:P:3542:THR:HB	3:P:3636:ILE:HD11	1.24	1.20
2:N:1639:GLU:HA	2:N:1810:TRP:CZ3	1.71	1.20
2:M:540:GLU:OE1	2:M:656:TYR:OH	1.56	1.20
4:G:2402:ILE:HG22	4:G:2404:THR:OG1	1.39	1.19
1:A:95:PHE:HB2	2:M:700:LYS:CE	1.72	1.19
1:B:1385:ASP:N	2:N:1841:GLN:NE2	1.87	1.19
2:N:1644:ARG:NH1	3:P:3527:SER:OG	1.73	1.19
1:A:257:PHE:N	2:M:801:GLY:O	1.74	1.19
5:T:3848:ALA:O	5:T:3854:GLU:HB2	1.43	1.19
4:G:2399:VAL:HG12	4:G:2401:ASP:N	1.57	1.18
2:N:1644:ARG:HH12	3:P:3527:SER:CB	1.57	1.18
3:P:3560:ASP:OD2	3:P:3734:LYS:NZ	1.76	1.18
5:R:1908:VAL:HB	5:R:1909:PRO:CD	1.72	1.18
2:M:639:GLU:OE2	2:M:832:ASN:CB	1.89	1.18
3:P:3672:PRO:CB	3:P:3736:GLN:NE2	2.07	1.18
5:Q:849:HIS:CE1	5:Q:855:ILE:HG13	1.79	1.18
5:T:3908:VAL:HB	5:T:3909:PRO:CD	1.72	1.18
2:N:1509:TYR:CB	2:N:1562:HIS:HE1	1.50	1.17
5:Q:908:VAL:HB	5:Q:909:PRO:CD	1.72	1.17
5:T:3908:VAL:CG1	5:T:3909:PRO:HD3	1.75	1.17
2:N:1643:SER:OG	3:P:3628:PRO:HD3	1.40	1.17
1:C:2057:SER:OG	2:O:2738:ASN:OD1	1.58	1.17
5:Q:906:ALA:HA	5:Q:907:THR:C	1.55	1.17
2:O:2841:GLN:OE1	2:O:2842:LEU:HD23	1.45	1.17
4:H:3399:VAL:HG12	4:H:3401:ASP:N	1.59	1.17
2:M:672:PRO:HB2	2:M:673:PRO:HD2	1.27	1.17
5:T:3922:LYS:HA	5:T:3923:ALA:C	1.54	1.17
5:S:2856:ILE:O	5:S:2859:TYR:CD2	1.95	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:432:LEU:HD11	5:Q:894:ARG:CZ	1.74	1.17
5:R:1908:VAL:CG1	5:R:1909:PRO:HD3	1.74	1.16
2:N:1788:TYR:CB	1:D:3237:PRO:HG3	1.73	1.16
5:R:1908:VAL:HB	5:R:1909:PRO:HD2	1.25	1.16
5:R:1898:THR:HG23	6:J:1165:LYS:CE	1.75	1.16
2:M:673:PRO:HD3	2:M:736:GLN:OE1	1.42	1.16
1:B:1242:TYR:HB2	2:O:2788:TYR:OH	1.41	1.16
1:D:3388:VAL:HG12	3:P:3840:PRO:O	1.46	1.16
4:F:1399:VAL:HB	4:F:1400:GLN:CA	1.74	1.16
2:N:1788:TYR:OH	1:D:3242:TYR:HB2	1.44	1.16
4:E:399:VAL:HB	4:E:400:GLN:CA	1.75	1.16
2:O:2535:GLU:OE2	2:O:2741:LEU:HD12	1.46	1.16
2:O:2639:GLU:OE2	2:O:2770:LYS:CA	1.93	1.16
5:S:2907:THR:O	5:S:2909:PRO:CG	1.93	1.16
2:N:1643:SER:CB	3:P:3628:PRO:HD3	1.75	1.16
3:P:3638:ARG:NE	3:P:3831:GLY:O	1.77	1.16
5:Q:849:HIS:HE1	5:Q:855:ILE:CG1	1.57	1.16
5:T:3900:TYR:CD1	6:L:3161:LYS:HD3	1.80	1.15
4:E:399:VAL:HG12	4:E:401:ASP:N	1.58	1.15
1:D:3387:ILE:CD1	3:P:3781:ASN:OD1	1.92	1.15
5:Q:908:VAL:CG1	5:Q:909:PRO:HD3	1.75	1.15
1:C:2388:VAL:N	2:O:2841:GLN:O	1.80	1.15
4:F:1399:VAL:HG12	4:F:1401:ASP:N	1.59	1.15
5:S:2849:HIS:CE1	5:S:2855:ILE:CG1	2.30	1.15
2:O:2527:SER:OG	3:P:3646:GLN:CG	1.93	1.15
1:A:256:PRO:CB	2:M:802:GLU:O	1.93	1.15
5:R:1900:TYR:CE1	6:J:1162:ARG:O	1.68	1.14
1:D:3058:PRO:O	3:P:3743:PRO:HA	1.43	1.14
2:M:542:THR:OG1	2:M:653:CYS:HB2	1.46	1.14
5:S:2909:PRO:HD2	5:S:2910:PHE:CG	1.82	1.14
2:N:1540:GLU:HB2	2:N:1656:TYR:OH	1.48	1.14
3:P:3509:TYR:CZ	3:P:3556:ILE:CD1	2.29	1.14
5:R:1849:HIS:CE1	5:R:1855:ILE:HG13	1.82	1.14
1:A:192:PHE:CE2	1:B:1152:HIS:CD2	2.36	1.14
5:T:3900:TYR:CE1	6:L:3161:LYS:HD3	1.81	1.14
2:N:1647:HIS:CG	1:D:3225:ALA:CB	2.28	1.13
2:N:1602:LEU:HD12	2:N:1759:PHE:CZ	1.82	1.13
5:Q:908:VAL:HB	5:Q:909:PRO:HD2	1.25	1.13
5:S:2909:PRO:HD2	5:S:2910:PHE:CB	1.77	1.13
5:S:2910:PHE:C	5:S:2911:LEU:N	2.02	1.13
1:A:360:LEU:HD22	4:E:401:ASP:HB3	1.28	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:3399:VAL:HB	4:H:3400:GLN:CA	1.75	1.13
1:D:3055:ILE:HG12	3:P:3740:PRO:CG	1.78	1.13
5:Q:902:LEU:HD13	6:I:139:LYS:CE	1.79	1.12
4:E:432:LEU:CG	5:Q:894:ARG:HD3	1.79	1.12
5:R:1902:LEU:HB3	6:J:1139:LYS:HG2	1.30	1.12
5:S:2914:LEU:O	5:S:2917:CYS:SG	2.06	1.12
5:Q:902:LEU:CD1	6:I:139:LYS:HE3	1.79	1.12
4:H:3421:VAL:HG11	5:T:3884:THR:CB	1.76	1.12
5:Q:849:HIS:HB3	5:Q:850:GLY:HA2	1.21	1.12
3:P:3513:ARG:HH12	3:P:3731:ASN:ND2	1.37	1.12
1:C:2362:SER:O	4:G:2402:ILE:CD1	1.98	1.12
2:N:1513:ARG:H	2:N:1553:GLN:NE2	1.42	1.12
4:F:1421:VAL:HG21	5:R:1884:THR:HB	1.19	1.12
5:R:1849:HIS:CB	5:R:1850:GLY:HA3	1.78	1.12
3:P:3509:TYR:CD2	3:P:3556:ILE:CG1	2.29	1.11
2:N:1535:GLU:CD	2:N:1741:LEU:CD1	2.19	1.11
4:F:1428:LEU:HD13	5:R:1891:CYS:SG	1.84	1.11
5:S:2911:LEU:HG	5:S:2913:SER:OG	1.45	1.11
5:S:2847:THR:OG1	5:S:2854:GLU:HG2	1.50	1.11
5:R:1902:LEU:CD1	6:J:1170:CYS:C	2.17	1.11
5:S:2900:TYR:C	6:K:2161:LYS:HD2	1.70	1.11
1:D:3055:ILE:HG12	3:P:3740:PRO:HG3	1.17	1.11
5:S:2912:LEU:CA	5:S:2913:SER:HB3	1.81	1.11
1:A:360:LEU:CD2	4:E:401:ASP:HB3	1.79	1.11
5:Q:916:CYS:HA	5:Q:917:CYS:O	1.49	1.11
5:R:1849:HIS:HE1	5:R:1855:ILE:CG1	1.61	1.11
1:A:360:LEU:HB3	4:E:402:ILE:HD11	1.32	1.11
2:N:1643:SER:OG	3:P:3628:PRO:CD	1.99	1.11
1:C:2028:VAL:HG21	1:C:2329:ALA:HB1	1.30	1.11
5:Q:902:LEU:HD13	6:I:139:LYS:HD3	1.27	1.11
5:R:1916:CYS:HA	5:R:1917:CYS:O	1.49	1.11
5:T:3900:TYR:CE1	6:L:3161:LYS:CD	2.33	1.11
1:A:386:HIS:O	2:M:842:LEU:HA	1.41	1.10
3:P:3510:LYS:O	3:P:3560:ASP:OD2	1.65	1.10
5:S:2911:LEU:HD21	5:S:2913:SER:OG	1.39	1.10
5:T:3908:VAL:HB	5:T:3909:PRO:HD2	1.25	1.10
5:T:3916:CYS:HA	5:T:3917:CYS:O	1.49	1.10
1:A:13:VAL:HG12	4:E:394:HIS:CE1	1.87	1.10
1:C:2018:LEU:CD2	1:C:2368:GLN:HE22	1.64	1.10
4:G:2399:VAL:HB	4:G:2400:GLN:CA	1.76	1.10
2:N:1642:HIS:HB2	3:P:3628:PRO:HB3	1.19	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:432:LEU:HD21	5:Q:894:ARG:HG2	1.29	1.10
2:N:1543:ASP:CG	2:N:1655:THR:OG1	1.89	1.10
2:N:1535:GLU:OE2	2:N:1741:LEU:CD1	1.97	1.10
5:S:2897:ILE:C	5:S:2899:PRO:HD2	1.70	1.10
5:T:3907:THR:H	5:T:3921:THR:CG2	1.65	1.10
1:A:387:ILE:CD1	2:M:840:PRO:HB2	1.53	1.10
4:E:439:HIS:NE2	6:I:165:LYS:HD3	1.60	1.10
2:N:1514:PRO:CD	2:N:1568:ARG:HE	1.64	1.10
3:P:3597:MET:HB3	3:P:3758:PRO:HG3	1.32	1.10
4:G:2428:LEU:HD21	5:S:2895:ARG:CZ	1.81	1.10
2:N:1788:TYR:CG	1:D:3237:PRO:HG2	1.87	1.10
1:A:386:HIS:O	2:M:842:LEU:CA	1.92	1.10
3:P:3510:LYS:N	3:P:3560:ASP:HB3	1.67	1.10
1:D:3393:SER:HA	4:H:3394:HIS:CD2	1.86	1.10
2:M:639:GLU:CB	2:M:832:ASN:ND2	2.15	1.10
4:F:1428:LEU:HD11	5:R:1891:CYS:CB	1.82	1.10
5:R:1908:VAL:CB	5:R:1909:PRO:CD	2.30	1.10
5:T:3908:VAL:CB	5:T:3909:PRO:CD	2.30	1.10
5:Q:849:HIS:HB3	5:Q:850:GLY:HA3	1.26	1.09
2:N:1646:GLN:HE21	3:P:3518:HIS:CE1	1.71	1.09
5:S:2850:GLY:HA2	5:S:2851:HIS:O	1.51	1.09
1:A:192:PHE:CE2	1:B:1152:HIS:HD2	1.70	1.09
1:D:3393:SER:CA	4:H:3394:HIS:HB2	1.80	1.09
1:D:3089:TRP:NE1	3:P:3572:ASN:HA	1.66	1.09
1:A:362:SER:HB3	4:E:402:ILE:HG23	1.26	1.09
5:R:1901:GLU:HG3	6:J:1168:LEU:HB3	1.24	1.09
5:R:1900:TYR:CG	6:J:1162:ARG:O	2.04	1.09
1:A:360:LEU:HD21	4:E:401:ASP:CG	1.73	1.09
1:C:2293:ALA:O	1:C:2324:LYS:HE2	1.53	1.09
1:C:2018:LEU:HD21	1:C:2368:GLN:HE22	1.15	1.09
2:N:1524:GLU:OE2	2:O:2594:THR:HG23	1.46	1.09
5:Q:907:THR:H	5:Q:921:THR:CG2	1.65	1.09
5:T:3900:TYR:CD1	6:L:3161:LYS:CD	2.35	1.09
5:S:2916:CYS:N	5:S:2917:CYS:N	2.01	1.09
2:O:2639:GLU:HA	2:O:2791:HIS:CD2	1.87	1.08
5:R:1849:HIS:CB	5:R:1850:GLY:CA	2.30	1.08
2:O:2509:TYR:HA	2:O:2512:THR:OG1	1.50	1.08
5:T:3849:HIS:CE1	5:T:3855:ILE:HG13	1.88	1.08
1:D:3387:ILE:HG23	3:P:3840:PRO:CA	1.82	1.08
5:R:1907:THR:H	5:R:1921:THR:CG2	1.65	1.08
5:Q:902:LEU:CD1	6:I:139:LYS:CD	2.32	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1849:HIS:HB3	5:R:1850:GLY:HA3	1.11	1.08
4:G:2395:THR:O	4:G:2397:LEU:HG	1.54	1.07
4:F:1421:VAL:CG1	5:R:1884:THR:HB	1.83	1.07
5:S:2849:HIS:CB	5:S:2850:GLY:CA	2.30	1.07
5:S:2849:HIS:HB3	5:S:2850:GLY:HA2	1.10	1.07
5:S:2915:LEU:O	5:S:2916:CYS:HB2	0.91	1.07
4:F:1409:TRP:CD1	5:R:1851:HIS:CE1	2.41	1.07
5:S:2917:CYS:HB2	5:S:2918:VAL:HB	1.34	1.07
3:P:3509:TYR:CB	3:P:3556:ILE:HG12	1.83	1.07
5:S:2910:PHE:CE1	5:S:2921:THR:CB	2.36	1.07
2:N:1814:LYS:HD3	1:D:3242:TYR:HD1	1.12	1.07
2:N:1547:LYS:NZ	2:N:1757:ILE:CD1	2.16	1.07
5:S:2849:HIS:HE1	5:S:2855:ILE:CG1	1.63	1.07
1:D:3393:SER:HA	4:H:3394:HIS:HB2	1.31	1.07
2:N:1541:ALA:N	2:N:1656:TYR:CE2	2.13	1.07
3:P:3509:TYR:CD1	3:P:3556:ILE:CD1	2.38	1.07
1:A:129:ALA:HB2	1:A:166:MET:HG3	1.29	1.07
1:A:362:SER:C	4:E:402:ILE:CD1	2.17	1.07
5:R:1898:THR:HG21	6:J:1165:LYS:HD2	1.36	1.07
2:M:540:GLU:CD	2:M:656:TYR:OH	1.91	1.07
2:N:1673:PRO:HB2	2:N:1743:PRO:HB2	1.14	1.07
5:R:1902:LEU:HD11	6:J:1171:ALA:CA	1.84	1.07
1:D:3393:SER:HA	4:H:3394:HIS:CB	1.84	1.06
4:E:432:LEU:HG	5:Q:894:ARG:HD3	1.34	1.06
4:G:2428:LEU:CD2	5:S:2895:ARG:NE	2.18	1.06
2:M:672:PRO:CB	2:M:736:GLN:NE2	2.18	1.06
5:Q:907:THR:N	5:Q:921:THR:HG21	1.70	1.06
2:N:1647:HIS:CE1	1:D:3225:ALA:CB	2.34	1.06
3:P:3509:TYR:CD1	3:P:3556:ILE:HG12	1.90	1.06
5:R:1902:LEU:CG	6:J:1170:CYS:HB2	1.82	1.06
1:D:3089:TRP:CE2	3:P:3573:HIS:N	2.15	1.06
5:T:3862:LEU:O	5:T:3863:TYR:N	1.87	1.06
5:T:3901:GLU:O	5:T:3902:LEU:HG	1.55	1.06
6:L:3235:LEU:HD12	6:L:3258:LYS:HE3	1.37	1.06
2:N:1604:ARG:NE	3:P:3524:GLU:O	1.86	1.06
2:N:1638:ARG:CD	2:N:1794:LEU:CD2	2.23	1.06
1:C:2387:ILE:HG23	2:O:2840:PRO:CB	1.84	1.06
1:D:3088:MET:HE2	3:P:3675:THR:HG23	1.37	1.06
2:N:1647:HIS:CD2	1:D:3225:ALA:HB1	1.90	1.06
3:P:3513:ARG:NH1	3:P:3731:ASN:ND2	1.93	1.06
2:N:1639:GLU:CA	2:N:1810:TRP:HZ3	1.68	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:2911:LEU:HD12	5:S:2918:VAL:O	1.56	1.06
5:Q:908:VAL:CB	5:Q:909:PRO:CD	2.30	1.06
5:R:1907:THR:N	5:R:1921:THR:HG21	1.70	1.06
2:M:639:GLU:OE2	2:M:832:ASN:N	1.88	1.06
4:F:1428:LEU:HD12	5:R:1891:CYS:SG	1.94	1.06
5:T:3848:ALA:O	5:T:3854:GLU:CB	2.02	1.06
5:T:3856:ILE:O	5:T:3859:TYR:CD2	2.09	1.06
1:A:387:ILE:HD12	2:M:840:PRO:HB2	1.37	1.05
1:C:2387:ILE:CA	2:O:2841:GLN:H	1.69	1.05
3:P:3639:GLU:OE1	3:P:3791:HIS:NE2	1.89	1.05
1:D:3387:ILE:HD12	3:P:3781:ASN:OD1	1.52	1.05
4:G:2428:LEU:HD21	5:S:2895:ARG:NE	1.71	1.05
6:J:1235:LEU:HD12	6:J:1258:LYS:HE3	1.37	1.05
5:R:1862:LEU:O	5:R:1863:TYR:N	1.87	1.05
5:T:3907:THR:N	5:T:3921:THR:HG21	1.70	1.05
5:Q:901:GLU:O	5:Q:902:LEU:HG	1.55	1.05
1:D:3393:SER:HA	4:H:3394:HIS:CG	1.91	1.05
5:S:2862:LEU:O	5:S:2863:TYR:N	1.87	1.05
2:N:1638:ARG:HG2	2:N:1794:LEU:HD22	1.05	1.05
1:C:2026:PRO:CD	1:C:2371:SER:OG	2.05	1.05
4:F:1424:ALA:HB1	5:R:1888:MET:HE1	1.11	1.05
2:M:676:PRO:HA	2:M:728:ALA:CB	1.87	1.05
5:S:2849:HIS:CE1	5:S:2855:ILE:HG13	1.90	1.05
5:S:2852:PRO:HA	5:S:2855:ILE:HD12	1.32	1.05
5:S:2910:PHE:O	5:S:2911:LEU:CG	2.02	1.05
2:M:639:GLU:OE2	2:M:832:ASN:CA	2.05	1.05
3:P:3672:PRO:CG	3:P:3731:ASN:HB2	1.86	1.05
6:K:2235:LEU:HD12	6:K:2258:LYS:HE3	1.37	1.05
3:P:3597:MET:CB	3:P:3758:PRO:HG3	1.86	1.05
5:Q:862:LEU:O	5:Q:863:TYR:N	1.87	1.05
2:N:1514:PRO:HD3	2:N:1568:ARG:NE	1.71	1.05
2:O:2639:GLU:OE2	2:O:2770:LYS:C	1.93	1.05
2:O:2638:ARG:N	2:O:2832:ASN:ND2	2.05	1.04
1:C:2091:GLY:HA3	2:O:2678:ARG:NE	1.71	1.04
4:F:1399:VAL:CG1	4:F:1400:GLN:HA	1.87	1.04
2:N:1644:ARG:NH1	3:P:3527:SER:HB3	1.70	1.04
5:Q:856:ILE:O	5:Q:859:TYR:CD2	2.09	1.04
5:R:1856:ILE:O	5:R:1859:TYR:CD2	2.09	1.04
2:M:673:PRO:CD	2:M:736:GLN:CD	2.25	1.04
5:Q:856:ILE:CA	5:Q:859:TYR:CE2	2.41	1.04
2:N:1638:ARG:NH2	2:N:1796:SER:HB3	1.72	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1514:PRO:HD3	2:N:1568:ARG:HE	0.91	1.04
5:T:3902:LEU:O	5:T:3903:THR:HG23	1.58	1.04
2:O:2610:THR:HG21	3:P:3643:SER:HB3	1.38	1.04
5:Q:849:HIS:CB	5:Q:850:GLY:CA	2.30	1.04
1:C:2028:VAL:CG2	1:C:2329:ALA:CB	2.25	1.04
4:F:1421:VAL:HG11	5:R:1884:THR:CA	1.87	1.04
2:N:1638:ARG:NH1	2:N:1794:LEU:HD21	1.72	1.04
3:P:3597:MET:HB3	3:P:3758:PRO:CG	1.88	1.04
5:T:3913:SER:HB2	5:T:3917:CYS:CB	1.88	1.04
2:N:1814:LYS:NZ	1:D:3242:TYR:HA	1.71	1.04
4:F:1421:VAL:HG11	5:R:1884:THR:CB	1.88	1.04
5:R:1856:ILE:CA	5:R:1859:TYR:CE2	2.41	1.04
5:R:1848:ALA:HA	5:R:1858:TYR:OH	1.56	1.04
5:T:3901:GLU:OE2	6:L:3139:LYS:HG2	1.58	1.04
1:C:2362:SER:CB	4:G:2402:ILE:CD1	1.93	1.03
2:O:2573:HIS:NE2	2:O:2729:VAL:HG23	1.69	1.03
5:S:2907:THR:O	5:S:2909:PRO:CD	0.74	1.03
4:E:399:VAL:CB	4:E:400:GLN:CA	2.31	1.03
1:A:362:SER:CA	4:E:402:ILE:HD12	1.87	1.03
3:P:3597:MET:HE3	3:P:3660:THR:CG2	1.88	1.03
5:Q:913:SER:HB2	5:Q:917:CYS:CB	1.88	1.03
5:S:2906:ALA:CB	5:S:2909:PRO:HD3	1.80	1.03
1:C:2388:VAL:HB	2:O:2841:GLN:O	1.57	1.03
4:G:2394:HIS:O	4:G:2395:THR:HG23	1.58	1.03
5:R:1902:LEU:O	5:R:1903:THR:HG23	1.58	1.03
1:A:388:VAL:HA	2:M:841:GLN:HG2	1.05	1.03
5:T:3849:HIS:HA	5:T:3854:GLU:HB2	1.37	1.03
1:B:1383:PRO:HG2	2:N:1841:GLN:OE1	1.57	1.03
4:H:3399:VAL:CG1	4:H:3400:GLN:HA	1.88	1.03
4:F:1424:ALA:HB1	5:R:1888:MET:CE	1.86	1.03
1:A:362:SER:CB	4:E:402:ILE:CG2	1.75	1.03
4:E:399:VAL:CG1	4:E:400:GLN:HA	1.89	1.03
1:D:3393:SER:C	4:H:3394:HIS:HB2	1.77	1.03
2:N:1673:PRO:HG2	2:N:1743:PRO:CD	1.83	1.03
1:A:192:PHE:CD2	1:B:1152:HIS:CD2	2.46	1.03
6:I:235:LEU:HD12	6:I:258:LYS:HE3	1.37	1.03
5:Q:902:LEU:O	5:Q:903:THR:HG23	1.58	1.03
5:R:1913:SER:HB2	5:R:1917:CYS:CB	1.88	1.03
5:T:3856:ILE:CA	5:T:3859:TYR:CE2	2.41	1.03
5:Q:902:LEU:CD1	6:I:139:LYS:CE	2.36	1.03
4:G:2428:LEU:HD21	5:S:2895:ARG:NH2	1.73	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:2856:ILE:CA	5:S:2859:TYR:CE2	2.42	1.02
1:A:362:SER:O	4:E:402:ILE:HD13	0.85	1.02
1:A:192:PHE:CD2	1:B:1152:HIS:HD2	1.76	1.02
1:C:2388:VAL:HG12	2:O:2841:GLN:HB2	1.35	1.02
2:N:1609:GLU:HB3	2:O:2642:HIS:CE1	1.94	1.02
5:R:1852:PRO:HA	5:R:1855:ILE:HD12	1.04	1.02
5:R:1849:HIS:CE1	5:R:1855:ILE:CG1	2.40	1.02
5:R:1901:GLU:O	5:R:1902:LEU:HG	1.55	1.02
4:F:1399:VAL:CB	4:F:1400:GLN:CA	2.30	1.02
5:S:2902:LEU:O	5:S:2903:THR:HG23	1.58	1.02
4:H:3421:VAL:HG21	5:T:3884:THR:HB	1.28	1.02
5:R:1898:THR:CG2	6:J:1165:LYS:CD	2.22	1.02
5:T:3852:PRO:HA	5:T:3855:ILE:HD12	1.04	1.02
5:Q:852:PRO:HA	5:Q:855:ILE:HD12	1.04	1.02
5:T:3849:HIS:HE1	5:T:3855:ILE:CG1	1.73	1.02
2:N:1645:PRO:HG3	2:N:1769:PRO:CG	1.88	1.02
1:B:1385:ASP:CA	2:N:1841:GLN:HE21	1.67	1.02
4:G:2399:VAL:CG1	4:G:2400:GLN:HA	1.88	1.02
2:N:1814:LYS:HD3	1:D:3242:TYR:CD1	1.94	1.02
5:S:2900:TYR:CE1	6:K:2161:LYS:CG	2.36	1.02
5:S:2901:GLU:N	5:S:2902:LEU:HG	1.74	1.02
2:M:672:PRO:HB3	2:M:736:GLN:CG	1.89	1.01
1:D:3387:ILE:HG23	3:P:3840:PRO:HA	1.05	1.01
4:F:1428:LEU:HD23	5:R:1895:ARG:HE	1.23	1.01
4:G:2399:VAL:CB	4:G:2400:GLN:CA	2.31	1.01
4:F:1406:ALA:CB	5:R:1849:HIS:CD2	2.42	1.01
4:H:3396:THR:O	4:H:3397:LEU:HG	1.60	1.01
2:M:673:PRO:HD3	2:M:736:GLN:CD	1.80	1.01
2:N:1645:PRO:HG2	2:N:1769:PRO:HD3	1.42	1.01
1:B:1237:PRO:CG	2:O:2788:TYR:CG	2.42	1.01
1:B:1242:TYR:HA	2:O:2814:LYS:NZ	1.76	1.01
2:N:1509:TYR:CD1	2:N:1556:ILE:HD11	1.96	1.01
4:H:3399:VAL:CB	4:H:3400:GLN:CA	2.31	1.01
1:D:3088:MET:HB2	3:P:3676:PRO:HD2	1.02	1.01
2:N:1788:TYR:OH	1:D:3242:TYR:CB	2.09	1.01
1:A:362:SER:HB2	4:E:402:ILE:HG21	1.37	1.01
2:N:1513:ARG:N	2:N:1553:GLN:HE22	1.38	1.01
5:Q:911:LEU:N	5:Q:913:SER:HB3	1.76	1.01
1:A:362:SER:CA	4:E:402:ILE:CD1	2.38	1.01
2:O:2841:GLN:NE2	2:O:2842:LEU:HD23	1.74	1.01
3:P:3509:TYR:CB	3:P:3556:ILE:HG21	1.90	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1849:HIS:HB3	5:R:1850:GLY:HA2	1.40	1.01
5:R:1863:TYR:O	5:R:1864:PRO:O	1.79	1.01
4:E:396:THR:O	4:E:397:LEU:HG	1.60	1.00
5:Q:852:PRO:HA	5:Q:855:ILE:CD1	1.90	1.00
5:T:3911:LEU:N	5:T:3913:SER:HB3	1.76	1.00
4:F:1402:ILE:C	4:F:1403:SER:N	2.13	1.00
1:A:388:VAL:CA	2:M:841:GLN:HG2	1.91	1.00
5:S:2913:SER:C	5:S:2914:LEU:O	2.00	1.00
2:N:1513:ARG:HG3	2:N:1514:PRO:N	1.75	1.00
5:T:3852:PRO:HA	5:T:3855:ILE:CD1	1.90	1.00
1:D:3089:TRP:NE1	3:P:3572:ASN:CA	2.23	1.00
1:A:360:LEU:CD2	4:E:401:ASP:CB	2.38	1.00
1:A:257:PHE:CZ	2:M:802:GLU:HG3	1.96	1.00
5:R:1852:PRO:HA	5:R:1855:ILE:CD1	1.90	1.00
5:S:2851:HIS:CB	5:S:2852:PRO:CD	2.37	1.00
5:R:1902:LEU:HD12	6:J:1170:CYS:HB2	1.00	1.00
2:N:1639:GLU:HG2	2:N:1793:THR:HA	1.05	1.00
5:R:1911:LEU:N	5:R:1913:SER:HB3	1.76	1.00
5:S:2863:TYR:O	5:S:2864:PRO:O	1.79	1.00
3:P:3509:TYR:CD1	3:P:3556:ILE:CG1	2.45	1.00
3:P:3672:PRO:HG2	3:P:3731:ASN:HB2	1.41	1.00
5:Q:863:TYR:O	5:Q:864:PRO:O	1.79	1.00
4:F:1424:ALA:CB	5:R:1888:MET:HE1	1.91	1.00
5:T:3906:ALA:CA	5:T:3907:THR:C	2.30	1.00
5:R:1902:LEU:HD11	6:J:1170:CYS:C	1.80	1.00
3:P:3597:MET:HE3	3:P:3660:THR:HG21	1.44	0.99
4:G:2432:LEU:O	4:G:2436:PHE:CD2	2.15	0.99
4:E:432:LEU:HD21	5:Q:894:ARG:CG	1.91	0.99
1:C:2387:ILE:HD11	2:O:2781:ASN:OD1	1.60	0.99
5:Q:916:CYS:CA	5:Q:917:CYS:C	2.30	0.99
5:R:1916:CYS:CA	5:R:1917:CYS:C	2.30	0.99
2:N:1535:GLU:OE2	2:N:1741:LEU:HB2	1.60	0.99
3:P:3509:TYR:CD1	3:P:3556:ILE:HD13	1.95	0.99
3:P:3507:ASN:HA	3:P:3562:HIS:CD2	1.98	0.99
1:B:1336:ALA:O	4:F:1394:HIS:N	1.96	0.99
6:L:3235:LEU:CD1	6:L:3258:LYS:HE3	1.93	0.99
5:Q:913:SER:CB	5:Q:917:CYS:SG	2.51	0.99
5:R:1856:ILE:HA	5:R:1859:TYR:CD2	1.98	0.99
4:H:3421:VAL:CG2	5:T:3884:THR:CB	2.31	0.99
4:H:3432:LEU:O	4:H:3436:PHE:CD2	2.15	0.99
5:T:3916:CYS:CA	5:T:3917:CYS:C	2.30	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:1235:LEU:CD1	6:J:1258:LYS:HE3	1.92	0.99
2:N:1602:LEU:CD1	2:N:1759:PHE:CZ	2.43	0.99
5:R:1906:ALA:CA	5:R:1907:THR:C	2.30	0.99
3:P:3509:TYR:CB	3:P:3556:ILE:CG2	2.41	0.99
3:P:3509:TYR:HB3	3:P:3556:ILE:HG21	0.99	0.98
1:D:3387:ILE:HG13	3:P:3781:ASN:H	1.24	0.98
5:S:2915:LEU:C	5:S:2916:CYS:N	2.17	0.98
2:N:1638:ARG:CB	2:N:1794:LEU:CD2	2.41	0.98
5:R:1906:ALA:HB2	5:R:1908:VAL:HB	1.45	0.98
4:E:402:ILE:CG2	4:E:403:SER:CA	2.30	0.98
3:P:3510:LYS:HA	3:P:3560:ASP:HB2	1.00	0.98
5:Q:856:ILE:HA	5:Q:859:TYR:CD2	1.98	0.98
5:R:1864:PRO:O	5:R:1865:THR:HG23	1.63	0.98
5:R:1906:ALA:HA	5:R:1908:VAL:N	1.78	0.98
5:R:1908:VAL:HG12	5:R:1909:PRO:HD3	1.45	0.98
5:T:3856:ILE:HA	5:T:3859:TYR:CD2	1.98	0.98
5:T:3913:SER:CB	5:T:3917:CYS:SG	2.51	0.98
1:C:2040:PRO:HB3	1:C:2127:ALA:HB2	1.46	0.98
1:D:3090:GLY:O	3:P:3677:ASP:CA	2.10	0.98
4:H:3421:VAL:CG1	5:T:3884:THR:HB	1.93	0.98
4:F:1432:LEU:O	4:F:1436:PHE:CD2	2.15	0.98
2:O:2525:GLY:HA3	3:P:3644:ARG:HD3	1.44	0.98
1:A:192:PHE:HE2	1:B:1152:HIS:CD2	1.81	0.98
2:N:1639:GLU:HA	2:N:1810:TRP:HZ3	0.81	0.98
5:R:1849:HIS:O	5:R:1854:GLU:OE2	1.81	0.98
5:R:1913:SER:CB	5:R:1917:CYS:SG	2.51	0.98
4:E:432:LEU:O	4:E:436:PHE:CD2	2.15	0.98
5:R:1907:THR:HG22	5:R:1921:THR:OG1	1.64	0.98
1:D:3056:PRO:O	3:P:3740:PRO:CA	2.12	0.98
4:F:1409:TRP:NE1	5:R:1851:HIS:HE1	1.54	0.98
5:S:2864:PRO:O	5:S:2865:THR:HG23	1.63	0.98
5:T:3863:TYR:O	5:T:3864:PRO:O	1.79	0.98
5:Q:864:PRO:O	5:Q:865:THR:HG23	1.63	0.98
5:Q:906:ALA:CA	5:Q:907:THR:C	2.30	0.98
5:Q:906:ALA:HA	5:Q:908:VAL:N	1.78	0.98
5:Q:907:THR:HG22	5:Q:921:THR:OG1	1.64	0.97
5:R:1848:ALA:O	5:R:1854:GLU:HB2	1.62	0.97
6:J:1157:LYS:HA	6:J:1157:LYS:HE2	1.46	0.97
2:N:1638:ARG:HB3	2:N:1794:LEU:CB	1.94	0.97
2:O:2639:GLU:CA	2:O:2791:HIS:NE2	2.26	0.97
5:T:3907:THR:HG22	5:T:3921:THR:OG1	1.64	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:2900:TYR:C	5:S:2902:LEU:HG	1.85	0.97
5:S:2912:LEU:N	5:S:2913:SER:OG	1.96	0.97
3:P:3513:ARG:NH1	3:P:3731:ASN:HB3	1.76	0.97
6:K:2157:LYS:HE2	6:K:2157:LYS:HA	1.46	0.97
6:L:3157:LYS:HE2	6:L:3157:LYS:HA	1.46	0.97
5:T:3864:PRO:O	5:T:3865:THR:HG23	1.63	0.97
1:B:1242:TYR:HD1	2:O:2814:LYS:HD3	1.29	0.97
3:P:3597:MET:CG	3:P:3758:PRO:HG3	1.94	0.97
5:R:1849:HIS:HA	5:R:1854:GLU:HB2	1.44	0.97
6:I:235:LEU:CD1	6:I:258:LYS:HE3	1.92	0.97
5:Q:908:VAL:HG12	5:Q:909:PRO:HD3	1.45	0.97
5:T:3908:VAL:HG12	5:T:3909:PRO:HD3	1.45	0.97
5:T:3906:ALA:HA	5:T:3908:VAL:N	1.78	0.97
1:D:3088:MET:HB3	3:P:3676:PRO:HD2	1.45	0.97
5:S:2906:ALA:CA	5:S:2909:PRO:HD3	1.95	0.97
5:T:3849:HIS:O	5:T:3854:GLU:HG3	1.64	0.97
2:N:1525:GLY:O	2:O:2644:ARG:HG2	1.64	0.96
5:R:1856:ILE:CA	5:R:1859:TYR:HE2	1.76	0.96
4:F:1424:ALA:CB	5:R:1888:MET:CE	2.42	0.96
4:F:1409:TRP:CE2	5:R:1851:HIS:CE1	2.52	0.96
5:S:2918:VAL:CG2	5:S:2920:THR:N	2.28	0.96
6:K:2235:LEU:CD1	6:K:2258:LYS:HE3	1.92	0.96
5:S:2906:ALA:HB1	5:S:2909:PRO:HD3	1.41	0.96
4:F:1402:ILE:HG22	4:F:1403:SER:HA	1.48	0.96
1:D:3058:PRO:O	3:P:3743:PRO:CA	2.13	0.96
5:Q:906:ALA:C	5:Q:910:PHE:CD2	2.38	0.96
5:S:2856:ILE:CA	5:S:2859:TYR:HE2	1.76	0.96
1:B:1295:SER:O	1:B:1296:LEU:HG	1.62	0.96
2:O:2610:THR:CG2	3:P:3643:SER:HB3	1.96	0.96
1:D:3089:TRP:CD1	3:P:3572:ASN:HA	1.99	0.96
5:Q:906:ALA:HB2	5:Q:908:VAL:HB	1.45	0.96
1:D:3388:VAL:CG1	3:P:3840:PRO:O	2.14	0.96
5:R:1849:HIS:O	5:R:1854:GLU:CD	2.03	0.96
1:A:385:ASP:HB3	2:M:841:GLN:CB	1.93	0.96
2:N:1525:GLY:O	2:O:2644:ARG:CD	2.14	0.96
2:N:1573:HIS:CE1	2:N:1695:GLN:OE1	2.19	0.96
5:R:1906:ALA:C	5:R:1910:PHE:CD2	2.38	0.96
5:S:2849:HIS:HE1	5:S:2855:ILE:HG12	1.29	0.96
5:T:3849:HIS:CE1	5:T:3855:ILE:CG1	2.45	0.96
2:N:1697:VAL:HG22	2:N:1729:VAL:HG22	1.48	0.95
1:C:2387:ILE:CD1	2:O:2781:ASN:OD1	2.14	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2387:ILE:HG22	2:O:2840:PRO:HA	1.47	0.95
4:E:402:ILE:HG22	4:E:403:SER:HA	0.98	0.95
5:T:3856:ILE:CA	5:T:3859:TYR:HE2	1.76	0.95
1:D:3091:GLY:O	3:P:3676:PRO:HG2	1.66	0.95
5:S:2900:TYR:O	6:K:2161:LYS:CE	2.12	0.95
5:T:3901:GLU:O	6:L:3139:LYS:HE3	1.67	0.95
5:S:2849:HIS:HB3	5:S:2850:GLY:HA3	1.44	0.95
5:S:2909:PRO:HD2	5:S:2910:PHE:CD2	1.63	0.95
5:T:3906:ALA:C	5:T:3910:PHE:CD2	2.38	0.95
5:R:1908:VAL:CG1	5:R:1909:PRO:CD	2.44	0.95
5:S:2915:LEU:C	5:S:2916:CYS:CA	2.35	0.95
1:C:2362:SER:CA	4:G:2402:ILE:HD12	1.96	0.95
2:N:1646:GLN:NE2	3:P:3518:HIS:ND1	2.14	0.95
2:O:2638:ARG:H	2:O:2832:ASN:ND2	1.64	0.95
5:Q:922:LYS:CA	5:Q:923:ALA:C	2.35	0.95
1:B:1237:PRO:CG	2:O:2788:TYR:CD1	2.49	0.95
4:F:1421:VAL:HG11	5:R:1884:THR:HB	1.43	0.95
1:A:388:VAL:O	2:M:839:TRP:HB3	1.66	0.95
5:T:3907:THR:HG23	5:T:3921:THR:HB	1.49	0.95
1:C:2028:VAL:HG23	1:C:2329:ALA:HB1	1.12	0.95
4:G:2428:LEU:HD22	5:S:2895:ARG:HE	1.28	0.95
5:T:3922:LYS:CA	5:T:3923:ALA:C	2.35	0.95
1:D:3387:ILE:HD11	3:P:3781:ASN:OD1	1.66	0.95
5:Q:864:PRO:O	5:Q:865:THR:OG1	1.85	0.95
1:B:1040:PRO:HB3	1:B:1127:ALA:HB2	1.47	0.94
2:M:573:HIS:CE1	2:M:729:VAL:CB	2.50	0.94
2:O:2639:GLU:OE2	2:O:2770:LYS:N	2.00	0.94
3:P:3513:ARG:NH1	3:P:3731:ASN:HD22	1.49	0.94
4:F:1403:SER:HB2	5:R:1848:ALA:HB1	1.47	0.94
1:D:3089:TRP:CE2	3:P:3572:ASN:C	2.39	0.94
2:N:1638:ARG:CB	2:N:1794:LEU:HD22	1.98	0.94
5:Q:906:ALA:HB1	5:Q:907:THR:O	1.67	0.94
5:S:2901:GLU:HA	5:S:2902:LEU:HG	1.01	0.94
1:C:2018:LEU:CD2	1:C:2368:GLN:NE2	2.29	0.94
3:P:3597:MET:CE	3:P:3660:THR:CG2	2.46	0.94
3:P:3673:PRO:HG3	3:P:3742:VAL:HG13	1.46	0.94
5:R:1906:ALA:HB1	5:R:1907:THR:O	1.68	0.94
1:C:2018:LEU:HD21	1:C:2368:GLN:NE2	1.83	0.94
4:H:3402:ILE:HG22	4:H:3403:SER:HA	0.98	0.94
5:S:2918:VAL:HG22	5:S:2919:ARG:HA	1.50	0.94
5:T:3908:VAL:CG1	5:T:3909:PRO:CD	2.44	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:3421:VAL:HG11	5:T:3884:THR:CG2	1.96	0.94
2:O:2639:GLU:HG2	2:O:2791:HIS:CE1	2.01	0.94
4:F:1428:LEU:HD23	5:R:1895:ARG:NE	1.81	0.94
5:T:3848:ALA:C	5:T:3854:GLU:CB	2.32	0.94
2:M:672:PRO:HB2	2:M:673:PRO:CD	1.98	0.94
2:N:1540:GLU:CB	2:N:1656:TYR:OH	2.14	0.94
5:Q:907:THR:HG23	5:Q:921:THR:HB	1.49	0.94
1:D:3090:GLY:O	3:P:3677:ASP:HA	1.65	0.94
1:D:3393:SER:O	4:H:3395:THR:HG23	1.68	0.94
1:C:2091:GLY:HA3	2:O:2678:ARG:HE	1.31	0.94
5:Q:902:LEU:HD11	6:I:139:LYS:HE3	1.48	0.94
5:S:2864:PRO:O	5:S:2865:THR:OG1	1.85	0.94
5:T:3906:ALA:HB1	5:T:3907:THR:O	1.67	0.94
6:J:1183:LYS:O	6:J:1184:PHE:N	2.00	0.94
5:Q:908:VAL:CG1	5:Q:909:PRO:CD	2.44	0.94
5:S:2909:PRO:HD3	5:S:2910:PHE:CE2	2.00	0.94
2:M:672:PRO:HB3	2:M:736:GLN:HB2	0.97	0.94
2:N:1814:LYS:CD	1:D:3242:TYR:HD1	1.80	0.94
5:T:3906:ALA:HB2	5:T:3908:VAL:HB	1.45	0.94
2:N:1509:TYR:CE2	2:N:1597:MET:SD	2.61	0.94
2:N:1540:GLU:HB2	2:N:1656:TYR:HH	1.32	0.94
2:N:1638:ARG:HB3	2:N:1794:LEU:CD2	1.97	0.94
2:N:1638:ARG:CG	2:N:1794:LEU:HD23	1.81	0.94
6:I:157:LYS:HE2	6:I:157:LYS:HA	1.46	0.94
2:M:674:ASP:HB3	2:M:730:THR:HA	1.46	0.93
5:R:1907:THR:N	5:R:1910:PHE:CD2	2.36	0.93
2:O:2841:GLN:NE2	2:O:2842:LEU:CD2	2.31	0.93
5:R:1910:PHE:O	5:R:1911:LEU:HG	1.69	0.93
5:S:2906:ALA:HB3	5:S:2909:PRO:HG3	1.49	0.93
4:H:3421:VAL:CG1	5:T:3884:THR:CB	2.45	0.93
5:R:1900:TYR:OH	6:J:1164:SER:N	1.84	0.93
1:D:3091:GLY:C	3:P:3676:PRO:CB	2.37	0.93
5:Q:907:THR:N	5:Q:910:PHE:CD2	2.36	0.93
5:R:1864:PRO:O	5:R:1865:THR:OG1	1.85	0.93
5:R:1922:LYS:CA	5:R:1923:ALA:C	2.35	0.93
4:H:3402:ILE:CB	4:H:3403:SER:CA	2.45	0.93
2:N:1547:LYS:HZ3	2:N:1757:ILE:HD12	1.31	0.93
1:A:116:THR:HG23	2:M:763:ASN:ND2	1.84	0.93
1:B:1131:ALA:O	1:B:1145:THR:HG23	1.68	0.93
1:A:57:SER:O	2:M:744:ARG:NH1	2.00	0.93
3:P:3509:TYR:CD2	3:P:3562:HIS:CE1	2.57	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:F:1428:LEU:CD2	5:R:1895:ARG:NE	2.31	0.93
1:A:291:VAL:HG21	1:C:2315:VAL:HG21	1.09	0.93
2:O:2628:PRO:HB3	3:P:3643:SER:OG	1.68	0.93
2:M:639:GLU:HB2	2:M:832:ASN:HD21	1.24	0.93
1:B:1388:VAL:N	2:N:1839:TRP:HB2	1.81	0.93
1:C:2026:PRO:CG	1:C:2371:SER:OG	2.17	0.93
2:N:1673:PRO:HB2	2:N:1743:PRO:CB	1.99	0.93
1:B:1383:PRO:HB2	2:N:1841:GLN:HE22	1.33	0.93
2:O:2671:MET:O	2:O:2673:PRO:HD3	1.68	0.93
2:O:2519:CYS:O	3:P:3646:GLN:NE2	2.02	0.93
5:Q:849:HIS:O	5:Q:854:GLU:OE2	1.87	0.93
5:T:3907:THR:N	5:T:3910:PHE:CD2	2.36	0.93
5:Q:856:ILE:CA	5:Q:859:TYR:HE2	1.76	0.93
5:T:3907:THR:CA	5:T:3921:THR:HG21	1.99	0.93
5:R:1907:THR:CA	5:R:1921:THR:HG21	1.98	0.92
5:S:2918:VAL:HG21	5:S:2920:THR:N	1.84	0.92
5:T:3864:PRO:O	5:T:3865:THR:OG1	1.85	0.92
2:N:1547:LYS:HZ1	2:N:1757:ILE:HD12	1.10	0.92
5:S:2849:HIS:ND1	5:S:2855:ILE:HG13	1.84	0.92
1:A:360:LEU:HD21	4:E:401:ASP:CB	1.99	0.92
2:M:639:GLU:HB2	2:M:832:ASN:HD22	1.27	0.92
5:T:3907:THR:N	5:T:3921:THR:CG2	2.30	0.92
2:O:2638:ARG:H	2:O:2832:ASN:HD21	1.06	0.92
1:D:3090:GLY:CA	3:P:3677:ASP:HA	1.98	0.92
1:A:57:SER:OG	2:M:738:ASN:OD1	1.87	0.92
5:Q:910:PHE:O	5:Q:911:LEU:HG	1.68	0.92
4:F:1421:VAL:HG11	5:R:1884:THR:HA	1.52	0.92
2:N:1673:PRO:HB3	2:N:1744:ARG:C	1.90	0.92
2:O:2573:HIS:HE1	2:O:2729:VAL:HG21	1.15	0.92
5:Q:908:VAL:HG12	5:Q:909:PRO:CD	2.00	0.92
5:R:1906:ALA:HB1	5:R:1910:PHE:CD2	2.05	0.92
5:S:2906:ALA:HB1	5:S:2907:THR:O	1.67	0.92
5:T:3906:ALA:HB1	5:T:3910:PHE:CD2	2.05	0.92
1:A:389:ASN:HA	2:M:839:TRP:HB2	1.50	0.92
4:F:1399:VAL:CG1	4:F:1400:GLN:C	2.38	0.92
2:N:1592:THR:OG1	3:P:3524:GLU:CD	2.08	0.92
2:M:573:HIS:HE1	2:M:729:VAL:HB	1.12	0.92
1:A:88:MET:SD	2:M:743:PRO:HG2	2.10	0.92
2:N:1602:LEU:CD1	2:N:1759:PHE:CG	2.41	0.92
5:Q:907:THR:CA	5:Q:921:THR:HG21	1.98	0.92
5:T:3848:ALA:HA	5:T:3858:TYR:OH	1.69	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:T:3908:VAL:HG12	5:T:3909:PRO:CD	2.00	0.92
5:T:3910:PHE:O	5:T:3911:LEU:HG	1.69	0.92
1:B:1131:ALA:HB1	1:B:1132:LYS:N	1.84	0.92
1:B:1236:ALA:HB2	2:O:2775:THR:OG1	1.70	0.92
4:H:3402:ILE:HG22	4:H:3403:SER:C	1.91	0.92
2:N:1768:VAL:HB	2:N:1832:ASN:HD21	1.33	0.92
2:N:1643:SER:HB3	3:P:3628:PRO:HD3	1.50	0.92
5:Q:847:THR:OG1	5:Q:857:LEU:CD1	2.17	0.92
1:B:1258:GLY:HA2	2:N:1798:ARG:NH1	1.84	0.91
1:B:1388:VAL:H	2:N:1839:TRP:HB2	1.36	0.91
5:Q:907:THR:N	5:Q:921:THR:CG2	2.30	0.91
1:D:3091:GLY:O	3:P:3676:PRO:CB	2.17	0.91
2:N:1525:GLY:O	2:O:2644:ARG:HG3	1.68	0.91
2:O:2518:HIS:CE1	3:P:3646:GLN:NE2	2.38	0.91
4:E:402:ILE:HG22	4:E:403:SER:C	1.91	0.91
1:B:1237:PRO:HG2	2:O:2788:TYR:CE1	2.05	0.91
5:R:1908:VAL:HG12	5:R:1909:PRO:CD	1.99	0.91
5:S:2917:CYS:CB	5:S:2918:VAL:HB	2.00	0.91
5:T:3902:LEU:C	5:T:3903:THR:HG23	1.91	0.91
1:B:1389:ASN:HA	2:N:1839:TRP:HZ3	1.09	0.91
2:O:2518:HIS:HE1	3:P:3646:GLN:NE2	1.69	0.91
1:D:3055:ILE:CG1	3:P:3740:PRO:HG3	2.00	0.91
5:S:2906:ALA:HA	5:S:2908:VAL:N	1.80	0.91
4:H:3421:VAL:HG21	5:T:3884:THR:CG2	2.00	0.91
2:O:2651:LEU:HD12	2:O:2768:VAL:HG21	1.50	0.91
5:R:1902:LEU:HD12	6:J:1170:CYS:C	1.86	0.91
2:N:1788:TYR:CD1	1:D:3237:PRO:HG2	2.06	0.91
2:O:2840:PRO:O	2:O:2841:GLN:HB2	1.67	0.91
5:Q:902:LEU:C	5:Q:903:THR:HG23	1.91	0.91
5:S:2910:PHE:CZ	5:S:2921:THR:HB	2.05	0.91
3:P:3509:TYR:CE2	3:P:3556:ILE:CD1	2.53	0.91
2:M:672:PRO:CB	2:M:736:GLN:CD	2.39	0.91
2:N:1549:GLN:NE2	2:N:1737:TYR:CD2	2.39	0.91
5:Q:848:ALA:HA	5:Q:858:TYR:OH	1.69	0.91
5:R:1907:THR:HG23	5:R:1921:THR:HB	1.49	0.91
5:S:2901:GLU:CA	5:S:2902:LEU:CB	2.49	0.91
5:T:3849:HIS:HB2	5:T:3850:GLY:HA3	1.53	0.91
1:A:14:PRO:O	4:E:394:HIS:NE2	2.04	0.90
2:M:698:ARG:NH2	2:M:732:HIS:HE1	1.69	0.90
1:A:387:ILE:CD1	2:M:781:ASN:OD1	2.18	0.90
5:Q:919:ARG:O	5:Q:920:THR:HG23	1.71	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1674:ASP:O	2:N:1743:PRO:HG2	1.72	0.90
2:N:1728:ALA:O	2:N:1729:VAL:HG23	1.71	0.90
2:O:2821:VAL:HG12	2:O:2840:PRO:HD3	1.54	0.90
5:R:1902:LEU:C	5:R:1903:THR:HG23	1.91	0.90
5:R:1918:VAL:CG1	5:R:1919:ARG:CA	2.30	0.90
5:T:3919:ARG:O	5:T:3920:THR:HG23	1.71	0.90
4:E:432:LEU:HD11	5:Q:894:ARG:CD	2.01	0.90
5:Q:906:ALA:HB1	5:Q:910:PHE:CD2	2.05	0.90
5:S:2849:HIS:HA	5:S:2854:GLU:HB2	1.53	0.90
5:S:2880:SER:O	5:S:2884:THR:HG23	1.71	0.90
4:G:2394:HIS:C	4:G:2395:THR:HG23	1.91	0.90
6:J:1183:LYS:C	6:J:1184:PHE:N	2.25	0.90
2:O:2639:GLU:HB2	2:O:2769:PRO:HG2	1.53	0.90
5:Q:847:THR:OG1	5:Q:857:LEU:HD12	1.70	0.90
5:T:3880:SER:O	5:T:3884:THR:HG23	1.71	0.90
4:H:3399:VAL:CG1	4:H:3400:GLN:C	2.39	0.90
6:J:1145:HIS:HE1	6:J:1235:LEU:HD22	1.33	0.90
5:S:2856:ILE:HG23	5:S:2859:TYR:CE2	2.07	0.90
5:T:3910:PHE:C	5:T:3913:SER:HB3	1.92	0.90
1:D:3091:GLY:N	3:P:3676:PRO:HB2	1.86	0.90
5:R:1898:THR:HG23	6:J:1165:LYS:CB	2.01	0.90
3:P:3635:VAL:HG13	3:P:3635:VAL:O	1.69	0.90
5:Q:849:HIS:CB	5:Q:850:GLY:HA3	1.96	0.90
4:F:1406:ALA:HB3	5:R:1849:HIS:NE2	1.84	0.90
1:C:2026:PRO:HD3	1:C:2371:SER:OG	1.72	0.90
5:Q:880:SER:O	5:Q:884:THR:HG23	1.71	0.90
5:S:2851:HIS:HB2	5:S:2852:PRO:CD	2.02	0.90
1:A:129:ALA:CB	1:A:166:MET:HG3	2.01	0.90
1:A:125:HIS:CD2	1:B:1126:THR:CG2	2.55	0.90
4:H:3402:ILE:CG2	4:H:3403:SER:CA	2.30	0.90
2:N:1509:TYR:CG	2:N:1562:HIS:HE1	1.90	0.90
2:N:1514:PRO:CD	2:N:1568:ARG:NE	2.30	0.90
1:C:2059:TYR:HB2	2:O:2744:ARG:NH2	1.85	0.90
1:A:362:SER:CA	4:E:402:ILE:HG21	2.02	0.89
5:R:1852:PRO:CA	5:R:1855:ILE:HD12	1.99	0.89
5:S:2900:TYR:CE1	6:K:2161:LYS:HG2	2.06	0.89
5:S:2900:TYR:CZ	6:K:2161:LYS:HG2	2.07	0.89
2:N:1573:HIS:CE1	2:N:1695:GLN:CD	2.25	0.89
2:N:1814:LYS:HZ2	1:D:3242:TYR:HA	1.33	0.89
2:O:2639:GLU:HG2	2:O:2791:HIS:NE2	1.88	0.89
1:B:1242:TYR:HA	2:O:2814:LYS:HZ2	1.35	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:910:PHE:C	5:Q:913:SER:HB3	1.92	0.89
5:Q:918:VAL:CG1	5:Q:919:ARG:CA	2.30	0.89
5:T:3852:PRO:CA	5:T:3855:ILE:HD12	1.99	0.89
1:B:1237:PRO:HG2	2:O:2788:TYR:CD1	2.07	0.89
4:E:399:VAL:HB	4:E:400:GLN:HA	0.90	0.89
4:E:402:ILE:CB	4:E:403:SER:CA	2.45	0.89
4:E:432:LEU:CD1	5:Q:894:ARG:CZ	2.49	0.89
5:R:1880:SER:O	5:R:1884:THR:HG23	1.71	0.89
4:H:3399:VAL:HB	4:H:3400:GLN:HA	0.90	0.89
4:H:3428:LEU:HD22	5:T:3891:CYS:HB3	1.53	0.89
2:N:1514:PRO:HG3	2:N:1568:ARG:HG2	1.52	0.89
1:D:3055:ILE:HG12	3:P:3740:PRO:CB	2.01	0.89
1:D:3129:ALA:CB	1:D:3166:MET:HG3	2.02	0.89
3:P:3510:LYS:O	3:P:3560:ASP:CG	2.10	0.89
5:R:1898:THR:HG23	6:J:1165:LYS:HE3	1.52	0.89
5:T:3906:ALA:C	5:T:3910:PHE:CE2	2.46	0.89
1:A:129:ALA:HB1	1:A:148:ALA:HB3	1.53	0.89
4:G:2399:VAL:HB	4:G:2400:GLN:HA	0.91	0.89
6:J:1120:ILE:HD11	6:J:1224:PHE:HZ	1.38	0.89
5:Q:906:ALA:C	5:Q:910:PHE:CE2	2.46	0.89
5:R:1919:ARG:O	5:R:1920:THR:HG23	1.71	0.89
5:S:2854:GLU:HA	5:S:2857:LEU:HD12	1.55	0.89
5:S:2906:ALA:HB1	5:S:2909:PRO:HG3	0.89	0.89
2:M:676:PRO:HA	2:M:728:ALA:HB2	1.53	0.89
5:R:1910:PHE:C	5:R:1913:SER:HB3	1.92	0.89
2:N:1638:ARG:HE	2:N:1794:LEU:HD23	1.29	0.89
2:N:1639:GLU:CG	2:N:1793:THR:HA	2.00	0.89
1:B:1236:ALA:CB	2:O:2775:THR:OG1	2.21	0.89
4:H:3421:VAL:HG11	5:T:3884:THR:CA	2.03	0.89
1:A:387:ILE:CD1	2:M:840:PRO:CB	2.42	0.88
4:H:3428:LEU:CD2	5:T:3891:CYS:HB3	2.03	0.88
2:N:1513:ARG:N	2:N:1553:GLN:NE2	1.94	0.88
3:P:3602:LEU:HD11	3:P:3759:PHE:HB3	1.53	0.88
1:A:13:VAL:CG1	4:E:394:HIS:CE1	2.57	0.88
1:B:1168:SER:C	1:B:1169:ALA:N	2.27	0.88
5:T:3902:LEU:CD1	6:L:3138:ASP:CG	2.30	0.88
1:B:1237:PRO:HG3	2:O:2788:TYR:CD1	2.08	0.88
1:D:3057:SER:CA	3:P:3742:VAL:O	2.21	0.88
4:F:1399:VAL:HG12	4:F:1400:GLN:CA	2.03	0.88
4:F:1399:VAL:CG1	4:F:1400:GLN:CA	2.49	0.88
2:O:2842:LEU:O	5:S:2843:SER:N	2.06	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1902:LEU:HD12	6:J:1170:CYS:CA	2.02	0.88
4:H:3402:ILE:HB	4:H:3403:SER:HA	1.55	0.88
4:H:3399:VAL:CG1	4:H:3400:GLN:CA	2.51	0.88
2:M:639:GLU:CD	2:M:832:ASN:HB2	1.94	0.88
5:T:3902:LEU:HD13	6:L:3138:ASP:OD2	1.73	0.88
1:A:95:PHE:HB2	2:M:700:LYS:NZ	1.88	0.88
4:F:1399:VAL:HB	4:F:1400:GLN:HA	0.89	0.88
5:R:1902:LEU:CB	6:J:1170:CYS:HB2	2.03	0.88
3:P:3638:ARG:HE	3:P:3831:GLY:C	1.75	0.88
5:R:1849:HIS:HE1	5:R:1855:ILE:HG12	1.35	0.88
1:A:385:ASP:HB3	2:M:841:GLN:HB3	1.56	0.88
4:G:2399:VAL:CG1	4:G:2400:GLN:CA	2.51	0.88
6:J:1145:HIS:CE1	6:J:1235:LEU:HD22	2.08	0.88
1:A:89:TRP:HZ2	2:M:676:PRO:O	1.51	0.88
2:N:1609:GLU:HB3	2:O:2642:HIS:NE2	1.88	0.88
2:N:1541:ALA:H	2:N:1656:TYR:HE2	1.11	0.88
5:S:2849:HIS:CB	5:S:2850:GLY:HA2	1.95	0.88
1:A:35:SER:O	1:A:131:ALA:HB1	1.72	0.88
1:D:3056:PRO:C	3:P:3740:PRO:HA	1.93	0.88
4:E:402:ILE:HB	4:E:403:SER:HA	1.55	0.88
4:H:3399:VAL:HG12	4:H:3400:GLN:CA	2.04	0.88
1:A:387:ILE:HD12	2:M:840:PRO:CB	2.03	0.88
2:O:2527:SER:CB	3:P:3646:GLN:NE2	2.30	0.88
5:Q:852:PRO:CA	5:Q:855:ILE:HD12	1.99	0.88
5:R:1906:ALA:C	5:R:1910:PHE:CE2	2.46	0.88
1:A:291:VAL:HG21	1:C:2315:VAL:HG22	1.54	0.87
4:F:1428:LEU:CD2	5:R:1895:ARG:HE	1.87	0.87
2:N:1638:ARG:HH22	2:N:1796:SER:HB3	1.31	0.87
2:O:2638:ARG:HB2	2:O:2832:ASN:ND2	1.89	0.87
3:P:3597:MET:CE	3:P:3660:THR:HG21	2.04	0.87
1:D:3387:ILE:HG22	3:P:3840:PRO:HA	1.56	0.87
2:N:1609:GLU:CB	2:O:2642:HIS:NE2	2.38	0.87
1:C:2242:TYR:HD1	3:P:3814:LYS:HZ2	0.90	0.87
4:E:399:VAL:CG1	4:E:400:GLN:CA	2.51	0.87
5:R:1902:LEU:HD12	6:J:1171:ALA:N	1.76	0.87
3:P:3672:PRO:CB	3:P:3736:GLN:CD	2.38	0.87
5:R:1906:ALA:O	5:R:1910:PHE:HE2	1.57	0.87
5:S:2909:PRO:HD2	5:S:2910:PHE:HB2	1.53	0.87
5:S:2910:PHE:C	5:S:2913:SER:HB2	1.94	0.87
4:E:399:VAL:CG1	4:E:400:GLN:C	2.40	0.87
5:S:2856:ILE:C	5:S:2859:TYR:HD2	1.77	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:638:ARG:NH2	2:M:829:THR:HB	1.89	0.87
5:R:1902:LEU:HB2	6:J:1170:CYS:CB	2.04	0.87
5:S:2907:THR:H	5:S:2921:THR:CG2	1.88	0.87
4:F:1406:ALA:CB	5:R:1849:HIS:CG	2.56	0.87
5:Q:902:LEU:CD1	6:I:139:LYS:HD3	1.98	0.87
5:T:3849:HIS:O	5:T:3854:GLU:CG	2.23	0.87
4:E:428:LEU:CD1	5:Q:887:GLY:O	2.23	0.87
5:R:1863:TYR:O	5:R:1864:PRO:C	2.07	0.87
2:N:1673:PRO:HG2	2:N:1743:PRO:HD2	1.55	0.87
4:H:3421:VAL:HG11	5:T:3884:THR:HG22	1.54	0.86
5:R:1907:THR:HA	5:R:1921:THR:HG21	1.56	0.86
5:T:3849:HIS:HB2	5:T:3850:GLY:CA	2.03	0.86
2:N:1524:GLU:OE2	2:O:2594:THR:HG22	1.75	0.86
5:T:3849:HIS:HA	5:T:3854:GLU:CB	1.98	0.86
5:T:3906:ALA:O	5:T:3910:PHE:HE2	1.57	0.86
1:D:3091:GLY:O	3:P:3676:PRO:CG	2.24	0.86
4:G:2399:VAL:HG12	4:G:2400:GLN:CA	2.05	0.86
5:R:1907:THR:N	5:R:1921:THR:CG2	2.30	0.86
5:T:3907:THR:HA	5:T:3921:THR:HG21	1.56	0.86
1:B:1237:PRO:HG3	2:O:2788:TYR:CD2	2.10	0.86
6:J:1166:TYR:CD1	6:J:1256:VAL:HG12	2.10	0.86
1:D:3057:SER:OG	3:P:3739:SER:O	1.92	0.86
5:Q:906:ALA:O	5:Q:910:PHE:HE2	1.57	0.86
5:T:3861:GLU:C	5:T:3862:LEU:N	2.29	0.86
4:E:399:VAL:HG12	4:E:400:GLN:CA	2.05	0.86
1:A:89:TRP:CZ2	2:M:676:PRO:O	2.07	0.86
2:N:1543:ASP:CB	2:N:1655:THR:OG1	2.22	0.86
5:S:2896:CYS:O	5:S:2899:PRO:CG	2.22	0.86
1:C:2116:THR:HG23	2:O:2763:ASN:HD21	1.05	0.86
4:G:2402:ILE:HG22	4:G:2404:THR:HG1	1.38	0.86
5:Q:856:ILE:C	5:Q:859:TYR:HD2	1.79	0.86
5:R:1902:LEU:CB	6:J:1139:LYS:HG2	2.06	0.86
5:R:1902:LEU:HB2	6:J:1170:CYS:SG	2.15	0.86
5:S:2915:LEU:O	5:S:2916:CYS:CA	2.23	0.86
5:T:3856:ILE:C	5:T:3859:TYR:HD2	1.79	0.86
4:F:1428:LEU:HD11	5:R:1891:CYS:HB2	1.57	0.86
3:P:3509:TYR:C	3:P:3560:ASP:HB3	1.94	0.86
5:Q:861:GLU:C	5:Q:862:LEU:N	2.29	0.86
5:S:2851:HIS:HB2	5:S:2852:PRO:HD2	1.58	0.86
5:S:2861:GLU:C	5:S:2862:LEU:N	2.29	0.86
5:T:3900:TYR:CE1	6:L:3161:LYS:HD2	2.11	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:849:HIS:CE1	5:Q:855:ILE:CG1	2.44	0.85
5:R:1861:GLU:C	5:R:1862:LEU:N	2.29	0.85
5:S:2900:TYR:O	5:S:2902:LEU:HG	1.75	0.85
1:A:125:HIS:CG	1:B:1126:THR:CG2	2.57	0.85
4:F:1399:VAL:CG1	4:F:1401:ASP:N	2.39	0.85
2:M:541:ALA:CB	2:M:655:THR:HA	2.06	0.85
2:O:2638:ARG:NH2	2:O:2794:LEU:O	2.10	0.85
3:P:3639:GLU:HB3	3:P:3791:HIS:CD2	2.11	0.85
1:A:151:ASP:OD2	1:B:1191:PRO:HA	1.76	0.85
4:H:3399:VAL:CG1	4:H:3401:ASP:N	2.40	0.85
1:C:2387:ILE:HA	2:O:2841:GLN:H	0.76	0.85
4:E:439:HIS:CE1	6:I:165:LYS:CD	2.40	0.85
2:N:1672:PRO:C	2:N:1731:ASN:OD1	2.15	0.85
2:O:2518:HIS:CE1	3:P:3646:GLN:HE22	1.93	0.85
2:N:1525:GLY:O	2:O:2644:ARG:HD3	1.74	0.85
5:R:1898:THR:H	6:J:1165:LYS:CE	1.89	0.85
1:A:192:PHE:O	1:B:1151:ASP:C	2.13	0.85
2:M:594:THR:O	2:M:658:GLN:NE2	2.09	0.85
2:N:1547:LYS:HZ1	2:N:1757:ILE:CD1	1.81	0.85
2:N:1788:TYR:CD2	1:D:3237:PRO:HG2	2.00	0.85
5:Q:907:THR:HA	5:Q:921:THR:HG21	1.56	0.85
4:F:1424:ALA:HB3	5:R:1888:MET:SD	2.17	0.85
5:R:1900:TYR:CD2	6:J:1162:ARG:O	2.30	0.85
2:N:1729:VAL:HG12	2:N:1730:THR:N	1.91	0.85
2:N:1602:LEU:CG	2:N:1759:PHE:CE2	2.60	0.85
2:N:1541:ALA:N	2:N:1656:TYR:CZ	2.45	0.85
5:S:2907:THR:HG22	5:S:2921:THR:HB	1.58	0.85
1:C:2387:ILE:HD12	2:O:2840:PRO:HB2	1.59	0.84
3:P:3509:TYR:HD2	3:P:3562:HIS:CE1	1.93	0.84
1:D:3042:LEU:HD11	1:D:3266:VAL:HG22	1.58	0.84
2:O:2841:GLN:CD	2:O:2842:LEU:CD2	2.39	0.84
5:S:2909:PRO:O	5:S:2912:LEU:C	2.14	0.84
1:A:129:ALA:O	1:A:130:SER:HB3	1.74	0.84
1:B:1242:TYR:HD1	2:O:2814:LYS:CD	1.88	0.84
1:D:3057:SER:CA	3:P:3739:SER:O	2.25	0.84
5:Q:860:TYR:O	5:Q:863:TYR:CD2	2.31	0.84
5:S:2852:PRO:HA	5:S:2855:ILE:CD1	2.07	0.84
5:T:3906:ALA:O	5:T:3910:PHE:CE2	2.30	0.84
1:A:297:THR:HG22	1:A:298:ASP:H	1.42	0.84
4:G:2399:VAL:CG1	4:G:2401:ASP:N	2.39	0.84
1:A:90:GLY:O	2:M:726:HIS:CD2	2.30	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1731:ASN:O	2:N:1732:HIS:CG	2.30	0.84
5:R:1856:ILE:C	5:R:1859:TYR:HD2	1.79	0.84
5:S:2897:ILE:HG22	5:S:2898:THR:N	1.90	0.84
5:T:3847:THR:OG1	5:T:3854:GLU:HG2	1.77	0.84
1:A:13:VAL:HG22	1:A:391:PRO:HB2	1.58	0.84
1:D:3387:ILE:HD11	3:P:3781:ASN:CG	1.98	0.84
1:D:3058:PRO:CD	3:P:3740:PRO:O	2.22	0.84
5:Q:906:ALA:O	5:Q:910:PHE:CE2	2.30	0.84
5:S:2848:ALA:CA	5:S:2858:TYR:OH	2.23	0.84
5:S:2864:PRO:O	5:S:2865:THR:CG2	2.25	0.84
5:T:3921:THR:O	5:T:3922:LYS:HG3	1.78	0.84
5:T:3918:VAL:CG1	5:T:3919:ARG:CA	2.30	0.84
1:B:1041:THR:C	1:B:1042:LEU:HG	1.97	0.84
1:B:1131:ALA:C	1:B:1132:LYS:N	2.30	0.84
5:Q:864:PRO:O	5:Q:865:THR:CG2	2.25	0.84
5:Q:921:THR:O	5:Q:922:LYS:HG3	1.78	0.84
5:R:1860:TYR:O	5:R:1863:TYR:CD2	2.31	0.84
5:S:2897:ILE:O	5:S:2899:PRO:CD	2.26	0.84
1:C:2041:THR:C	1:C:2042:LEU:HG	1.97	0.84
4:E:399:VAL:CG1	4:E:401:ASP:N	2.40	0.84
4:F:1432:LEU:O	4:F:1436:PHE:HD2	1.61	0.84
2:N:1540:GLU:CA	2:N:1656:TYR:OH	2.26	0.84
1:D:3091:GLY:O	3:P:3676:PRO:HB2	1.77	0.84
5:R:1848:ALA:O	5:R:1854:GLU:CB	2.25	0.84
2:N:1602:LEU:HD12	2:N:1759:PHE:CE2	1.99	0.84
3:P:3509:TYR:CE2	3:P:3562:HIS:HE1	1.96	0.84
5:Q:911:LEU:HA	5:Q:912:LEU:C	1.98	0.84
5:S:2907:THR:N	5:S:2921:THR:HG21	1.93	0.84
5:T:3864:PRO:O	5:T:3865:THR:CG2	2.25	0.84
2:N:1509:TYR:HB3	2:N:1556:ILE:CG1	2.08	0.84
5:R:1906:ALA:O	5:R:1910:PHE:CE2	2.30	0.83
5:S:2917:CYS:O	5:S:2918:VAL:CB	2.26	0.83
1:A:42:LEU:HD11	1:A:266:VAL:HG22	1.58	0.83
2:O:2527:SER:OG	3:P:3646:GLN:HG2	1.77	0.83
5:T:3849:HIS:CA	5:T:3854:GLU:HB2	2.06	0.83
4:F:1406:ALA:HB3	5:R:1849:HIS:CG	2.12	0.83
4:G:2399:VAL:CG1	4:G:2400:GLN:C	2.40	0.83
2:M:676:PRO:HA	2:M:728:ALA:HB1	1.59	0.83
1:A:385:ASP:HB3	2:M:841:GLN:HB2	1.60	0.83
5:R:1893:ARG:O	5:R:1897:ILE:HG12	1.78	0.83
5:T:3860:TYR:O	5:T:3863:TYR:CD2	2.31	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:893:ARG:O	5:Q:897:ILE:HG12	1.78	0.83
5:R:1864:PRO:O	5:R:1865:THR:CG2	2.25	0.83
5:R:1921:THR:O	5:R:1922:LYS:HG3	1.78	0.83
5:S:2854:GLU:HG2	5:S:2857:LEU:HD12	1.59	0.83
5:S:2918:VAL:CG2	5:S:2919:ARG:HA	2.08	0.83
5:T:3848:ALA:C	5:T:3854:GLU:HB2	1.89	0.83
1:C:2016:LYS:CE	1:C:2342:ALA:HB2	2.08	0.83
5:S:2856:ILE:HA	5:S:2859:TYR:HE2	1.06	0.83
5:T:3849:HIS:HE1	5:T:3855:ILE:HG12	1.41	0.83
1:D:3091:GLY:C	3:P:3676:PRO:HB2	1.97	0.83
5:R:1898:THR:HG23	6:J:1165:LYS:CG	2.07	0.83
5:S:2860:TYR:O	5:S:2863:TYR:CD2	2.30	0.83
1:D:3386:HIS:CE1	5:T:3844:THR:O	2.31	0.83
5:T:3863:TYR:O	5:T:3864:PRO:C	2.07	0.83
1:C:2016:LYS:HE2	1:C:2342:ALA:CB	2.08	0.83
1:B:1009:ASN:CB	1:B:1274:GLY:O	2.27	0.83
1:C:2089:TRP:CZ3	2:O:2677:ASP:HA	2.13	0.83
1:D:3090:GLY:HA3	3:P:3677:ASP:CA	2.08	0.83
4:E:432:LEU:O	4:E:436:PHE:HD2	1.61	0.83
2:N:1602:LEU:HD11	2:N:1759:PHE:CD1	2.13	0.83
2:N:1638:ARG:HB3	2:N:1794:LEU:HB3	1.60	0.83
1:D:3383:PRO:HG2	3:P:3842:MET:HB3	1.61	0.83
5:S:2901:GLU:HA	5:S:2902:LEU:HB2	1.57	0.83
5:S:2906:ALA:HA	5:S:2909:PRO:HD3	1.60	0.83
1:A:95:PHE:HB2	2:M:700:LYS:HE3	1.60	0.83
1:A:291:VAL:HG13	1:C:2315:VAL:HG11	1.58	0.83
2:N:1644:ARG:HH12	3:P:3527:SER:HG	1.23	0.83
2:N:1547:LYS:HZ3	2:N:1757:ILE:CD1	1.86	0.83
5:S:2917:CYS:C	5:S:2918:VAL:HG21	1.98	0.83
5:S:2897:ILE:HG22	5:S:2898:THR:H	1.42	0.82
5:S:2897:ILE:O	5:S:2899:PRO:HD2	1.78	0.82
5:S:2916:CYS:HG	5:S:2919:ARG:N	1.73	0.82
5:T:3874:ALA:O	5:T:3878:LEU:HG	1.79	0.82
5:T:3893:ARG:O	5:T:3897:ILE:HG12	1.78	0.82
2:N:1649:LYS:HB3	2:N:1768:VAL:HG23	1.60	0.82
3:P:3649:LYS:HB3	3:P:3768:VAL:HG23	1.61	0.82
5:R:1848:ALA:C	5:R:1854:GLU:CB	2.48	0.82
1:A:129:ALA:HB2	1:A:166:MET:CG	2.10	0.82
1:B:1272:ALA:O	1:B:1273:VAL:HB	1.79	0.82
2:O:2821:VAL:CG1	2:O:2840:PRO:HD3	2.09	0.82
5:R:1850:GLY:HA2	5:R:1851:HIS:O	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2091:GLY:HA3	2:O:2678:ARG:CD	2.07	0.82
1:C:2388:VAL:CB	2:O:2841:GLN:O	2.26	0.82
3:P:3513:ARG:NH1	3:P:3731:ASN:CB	2.39	0.82
5:S:2847:THR:HB	5:S:2854:GLU:CG	2.08	0.82
2:M:639:GLU:CD	2:M:832:ASN:H	1.83	0.82
1:A:385:ASP:CB	2:M:841:GLN:HB3	2.10	0.82
2:N:1509:TYR:HB3	2:N:1556:ILE:HG12	1.62	0.82
5:Q:848:ALA:O	5:Q:854:GLU:HB2	1.80	0.82
4:E:428:LEU:HB3	5:Q:894:ARG:HD2	1.61	0.82
5:S:2849:HIS:CA	5:S:2854:GLU:HB2	2.09	0.82
1:D:3386:HIS:NE2	5:T:3844:THR:O	2.12	0.82
1:D:3057:SER:HA	3:P:3739:SER:O	1.80	0.82
4:E:432:LEU:CD1	5:Q:894:ARG:HD3	2.10	0.82
1:B:1242:TYR:CD1	2:O:2814:LYS:HD3	2.14	0.82
4:F:1421:VAL:HG21	5:R:1884:THR:OG1	1.79	0.82
3:P:3672:PRO:HG3	3:P:3731:ASN:HB2	1.61	0.82
5:Q:863:TYR:O	5:Q:864:PRO:C	2.07	0.82
5:T:3911:LEU:HA	5:T:3912:LEU:C	1.98	0.82
5:T:3915:LEU:O	5:T:3916:CYS:HB2	1.80	0.82
1:D:3089:TRP:HE1	3:P:3572:ASN:CA	1.88	0.82
5:S:2847:THR:CB	5:S:2854:GLU:HG2	2.09	0.82
5:S:2874:ALA:O	5:S:2878:LEU:HG	1.79	0.82
5:T:3900:TYR:CD1	6:L:3161:LYS:HD2	2.14	0.82
1:C:2131:ALA:HB1	1:C:2132:LYS:N	1.95	0.82
1:C:2386:HIS:CB	5:S:2843:SER:HB3	2.09	0.82
1:A:256:PRO:HB2	2:M:802:GLU:O	1.79	0.82
2:N:1540:GLU:N	2:N:1656:TYR:OH	2.13	0.82
5:R:1874:ALA:O	5:R:1878:LEU:HG	1.79	0.82
2:N:1768:VAL:HB	2:N:1832:ASN:ND2	1.94	0.82
5:Q:849:HIS:HE1	5:Q:855:ILE:HG12	1.44	0.82
5:Q:907:THR:O	5:Q:910:PHE:CD2	2.32	0.82
5:S:2862:LEU:N	5:S:2863:TYR:CE2	2.48	0.82
5:R:1901:GLU:OE1	6:J:1168:LEU:HG	1.79	0.81
5:R:1911:LEU:HA	5:R:1912:LEU:C	1.98	0.81
5:Q:874:ALA:O	5:Q:878:LEU:HG	1.79	0.81
5:T:3908:VAL:CB	5:T:3909:PRO:HD3	2.04	0.81
1:A:13:VAL:CG2	1:A:391:PRO:HB2	2.09	0.81
2:N:1788:TYR:HB3	1:D:3237:PRO:HG3	1.63	0.81
5:R:1907:THR:O	5:R:1910:PHE:CD2	2.32	0.81
4:H:3421:VAL:HG11	5:T:3884:THR:HA	1.62	0.81
2:N:1638:ARG:O	2:N:1794:LEU:HB2	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:862:LEU:N	5:Q:863:TYR:CE2	2.48	0.81
5:R:1862:LEU:N	5:R:1863:TYR:CE2	2.48	0.81
5:S:2856:ILE:HG23	5:S:2859:TYR:CD2	2.15	0.81
5:T:3907:THR:O	5:T:3910:PHE:CD2	2.32	0.81
2:O:2640:LYS:H	2:O:2791:HIS:CG	1.98	0.81
5:Q:856:ILE:CA	5:Q:859:TYR:CD2	2.63	0.81
1:B:1037:THR:HG22	1:B:1038:LEU:N	1.94	0.81
1:D:3089:TRP:CZ2	3:P:3572:ASN:C	2.54	0.81
5:R:1897:ILE:HG22	5:R:1898:THR:N	1.95	0.81
5:S:2847:THR:CB	5:S:2854:GLU:CD	2.42	0.81
1:C:2388:VAL:HG12	2:O:2841:GLN:CB	2.10	0.81
1:B:1095:PHE:HA	2:N:1700:LYS:HE2	1.61	0.81
5:T:3907:THR:CG2	5:T:3921:THR:HB	2.11	0.81
1:C:2016:LYS:HE2	1:C:2342:ALA:CA	2.10	0.81
2:N:1543:ASP:HB3	2:N:1655:THR:OG1	1.79	0.81
2:N:1673:PRO:HB3	2:N:1744:ARG:CA	2.09	0.81
5:S:2863:TYR:O	5:S:2864:PRO:C	2.07	0.81
1:C:2387:ILE:HG23	2:O:2840:PRO:HA	0.83	0.81
6:K:2227:LYS:NZ	6:K:2227:LYS:HB2	1.96	0.81
1:B:1242:TYR:CB	2:O:2788:TYR:OH	2.26	0.81
3:P:3509:TYR:CG	3:P:3556:ILE:CD1	2.63	0.81
5:Q:897:ILE:HG22	5:Q:898:THR:N	1.95	0.81
5:R:1907:THR:N	5:R:1910:PHE:HD2	1.78	0.81
5:S:2911:LEU:CD1	5:S:2918:VAL:O	2.29	0.81
1:C:2362:SER:HB3	4:G:2402:ILE:CG1	2.10	0.81
6:L:3227:LYS:HB2	6:L:3227:LYS:NZ	1.96	0.81
2:N:1542:THR:HG23	2:N:1654:SER:OG	1.81	0.81
5:T:3862:LEU:N	5:T:3863:TYR:CE2	2.48	0.81
5:T:3897:ILE:HG22	5:T:3898:THR:N	1.95	0.81
5:S:2849:HIS:CE1	5:S:2855:ILE:HG12	2.09	0.80
2:N:1509:TYR:CD2	2:N:1562:HIS:HE1	1.99	0.80
2:N:1673:PRO:CB	2:N:1743:PRO:HB2	1.87	0.80
1:A:389:ASN:HA	2:M:839:TRP:CB	2.11	0.80
5:Q:907:THR:CG2	5:Q:921:THR:HB	2.11	0.80
5:S:2856:ILE:HA	5:S:2859:TYR:CD2	2.15	0.80
5:R:1910:PHE:C	5:R:1913:SER:CB	2.50	0.80
2:N:1728:ALA:O	2:N:1729:VAL:CG2	2.30	0.80
5:R:1901:GLU:O	5:R:1902:LEU:CG	2.30	0.80
4:H:3396:THR:O	4:H:3397:LEU:CG	2.30	0.80
5:Q:910:PHE:C	5:Q:913:SER:CB	2.50	0.80
5:Q:907:THR:N	5:Q:910:PHE:HD2	1.78	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1915:LEU:O	5:R:1916:CYS:HB2	1.80	0.80
5:S:2900:TYR:O	5:S:2902:LEU:CG	2.30	0.80
1:B:1131:ALA:CB	1:B:1132:LYS:N	2.45	0.80
1:D:3254:THR:HG22	3:P:3806:TYR:CB	2.11	0.80
1:D:3393:SER:CA	4:H:3394:HIS:CD2	2.64	0.80
4:E:396:THR:O	4:E:397:LEU:CG	2.30	0.80
3:P:3510:LYS:HA	3:P:3560:ASP:HB3	0.89	0.80
5:Q:917:CYS:O	5:Q:920:THR:CG2	2.30	0.80
5:T:3917:CYS:O	5:T:3920:THR:CG2	2.30	0.80
2:O:2639:GLU:OE1	2:O:2769:PRO:HB2	1.82	0.80
1:C:2089:TRP:CZ3	2:O:2677:ASP:CA	2.64	0.80
2:O:2639:GLU:CG	2:O:2791:HIS:NE2	2.45	0.80
1:D:3387:ILE:CG1	3:P:3781:ASN:H	1.94	0.80
5:S:2901:GLU:HG2	5:S:2902:LEU:HD12	1.63	0.80
1:B:1034:LEU:HD12	1:B:1132:LYS:HG2	1.64	0.80
6:J:1227:LYS:HB2	6:J:1227:LYS:NZ	1.96	0.80
3:P:3596:THR:N	3:P:3759:PHE:HZ	1.79	0.80
2:N:1643:SER:OG	3:P:3628:PRO:CG	2.30	0.80
3:P:3672:PRO:CB	3:P:3736:GLN:HE22	1.87	0.80
6:I:227:LYS:NZ	6:I:227:LYS:HB2	1.96	0.79
5:R:1902:LEU:HD13	6:J:1139:LYS:HG3	1.61	0.79
2:N:1672:PRO:HB2	2:N:1731:ASN:CB	2.12	0.79
5:Q:901:GLU:O	5:Q:902:LEU:CG	2.30	0.79
5:S:2860:TYR:C	5:S:2863:TYR:CD2	2.53	0.79
5:S:2906:ALA:CA	5:S:2907:THR:C	2.32	0.79
5:T:3849:HIS:O	5:T:3854:GLU:CD	2.20	0.79
5:T:3919:ARG:O	5:T:3920:THR:CG2	2.30	0.79
5:T:3921:THR:O	5:T:3922:LYS:CG	2.30	0.79
1:D:3090:GLY:O	3:P:3677:ASP:N	2.15	0.79
4:H:3432:LEU:HD21	5:T:3894:ARG:HB3	1.64	0.79
5:T:3900:TYR:HD1	6:L:3161:LYS:HD3	1.47	0.79
5:Q:916:CYS:CA	5:Q:917:CYS:O	2.30	0.79
5:S:2849:HIS:CB	5:S:2850:GLY:HA3	2.06	0.79
5:S:2906:ALA:HA	5:S:2907:THR:C	1.59	0.79
5:T:3910:PHE:C	5:T:3913:SER:CB	2.50	0.79
6:K:2183:LYS:O	6:K:2230:VAL:N	2.14	0.79
5:Q:919:ARG:O	5:Q:920:THR:CG2	2.30	0.79
5:Q:921:THR:O	5:Q:922:LYS:CG	2.30	0.79
5:R:1919:ARG:O	5:R:1920:THR:CG2	2.30	0.79
5:R:1902:LEU:HB2	6:J:1170:CYS:HB2	1.60	0.79
5:Q:849:HIS:HA	5:Q:854:GLU:HB2	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2362:SER:CB	4:G:2402:ILE:HG21	2.13	0.79
2:N:1773:ASN:HD22	1:D:3234:SER:CB	1.95	0.79
4:G:2402:ILE:CG2	4:G:2404:THR:OG1	2.28	0.79
5:T:3901:GLU:O	6:L:3139:LYS:CE	2.31	0.79
1:C:2387:ILE:CA	2:O:2841:GLN:N	2.37	0.79
5:R:1902:LEU:O	5:R:1903:THR:CG2	2.30	0.79
5:R:1913:SER:CB	5:R:1917:CYS:CB	2.61	0.79
5:T:3913:SER:CB	5:T:3917:CYS:CB	2.61	0.79
1:C:2359:ALA:HB2	4:G:2395:THR:HG21	1.65	0.79
1:D:3057:SER:HB3	3:P:3742:VAL:C	2.02	0.79
4:G:2394:HIS:O	4:G:2395:THR:CG2	2.30	0.79
5:T:3907:THR:N	5:T:3910:PHE:HD2	1.78	0.79
1:D:3088:MET:CB	3:P:3676:PRO:CD	2.39	0.79
5:S:2851:HIS:CB	5:S:2852:PRO:HD3	2.13	0.79
5:T:3906:ALA:CB	5:T:3907:THR:O	2.30	0.79
5:T:3910:PHE:HD1	5:T:3917:CYS:HA	1.48	0.79
1:C:2090:GLY:HA3	2:O:2678:ARG:H	1.48	0.79
5:R:1917:CYS:O	5:R:1920:THR:CG2	2.30	0.79
5:Q:915:LEU:O	5:Q:916:CYS:HB2	1.80	0.79
5:R:1906:ALA:CB	5:R:1907:THR:O	2.30	0.79
5:R:1907:THR:CG2	5:R:1921:THR:HB	2.11	0.79
1:A:36:VAL:C	1:A:37:THR:N	2.36	0.78
1:B:1389:ASN:CA	2:N:1839:TRP:CZ3	2.63	0.78
3:P:3509:TYR:CE2	3:P:3562:HIS:CE1	2.71	0.78
5:Q:860:TYR:O	5:Q:863:TYR:CE2	2.32	0.78
5:Q:913:SER:CB	5:Q:917:CYS:CB	2.61	0.78
4:F:1409:TRP:CD1	5:R:1851:HIS:ND1	2.50	0.78
5:R:1847:THR:OG1	5:R:1854:GLU:HG2	1.83	0.78
5:S:2902:LEU:O	5:S:2903:THR:CG2	2.30	0.78
5:T:3849:HIS:CB	5:T:3850:GLY:HA3	2.05	0.78
5:T:3911:LEU:CA	5:T:3912:LEU:C	2.51	0.78
1:A:362:SER:HB3	4:E:402:ILE:HG22	1.52	0.78
5:Q:902:LEU:O	5:Q:903:THR:CG2	2.30	0.78
5:Q:906:ALA:CB	5:Q:907:THR:O	2.30	0.78
5:R:1921:THR:O	5:R:1922:LYS:CG	2.30	0.78
1:D:3089:TRP:NE1	3:P:3572:ASN:C	2.35	0.78
5:Q:910:PHE:HD1	5:Q:917:CYS:HA	1.48	0.78
6:J:1136:VAL:HG22	6:J:1184:PHE:HD2	1.47	0.78
6:I:262:GLU:HB3	6:K:2175:VAL:CG1	2.13	0.78
2:N:1535:GLU:OE2	2:N:1741:LEU:CB	2.31	0.78
5:S:2913:SER:O	5:S:2914:LEU:O	1.99	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1090:GLY:H	2:N:1676:PRO:HB3	1.47	0.78
1:C:2016:LYS:HE2	1:C:2342:ALA:HB2	1.63	0.78
3:P:3542:THR:HB	3:P:3636:ILE:CD1	2.10	0.78
5:S:2908:VAL:O	5:S:2910:PHE:HB2	1.81	0.78
2:M:698:ARG:HH21	2:M:732:HIS:HE1	1.31	0.78
5:Q:911:LEU:CA	5:Q:912:LEU:C	2.51	0.78
4:G:2428:LEU:HD21	5:S:2895:ARG:HH21	1.48	0.78
6:I:262:GLU:HB3	6:K:2175:VAL:HG11	1.65	0.78
5:Q:849:HIS:O	5:Q:854:GLU:CD	2.21	0.78
5:T:3916:CYS:CA	5:T:3917:CYS:O	2.30	0.78
2:N:1592:THR:OG1	3:P:3524:GLU:CG	2.31	0.78
5:Q:849:HIS:CB	5:Q:850:GLY:HA2	2.05	0.78
5:R:1910:PHE:O	5:R:1911:LEU:CG	2.32	0.78
4:G:2432:LEU:O	4:G:2436:PHE:HD2	1.61	0.78
2:M:673:PRO:HD2	2:M:736:GLN:CD	1.89	0.78
5:S:2910:PHE:CD1	5:S:2921:THR:OG1	2.37	0.78
1:C:2016:LYS:HE2	1:C:2342:ALA:HA	1.65	0.78
1:D:3058:PRO:HD3	3:P:3740:PRO:C	2.03	0.78
4:H:3432:LEU:O	4:H:3436:PHE:HD2	1.61	0.78
2:N:1639:GLU:CA	2:N:1810:TRP:CZ3	2.44	0.78
3:P:3677:ASP:HB3	3:P:3680:LEU:HD12	1.65	0.78
5:R:1856:ILE:CA	5:R:1859:TYR:CD2	2.63	0.78
5:R:1911:LEU:CA	5:R:1912:LEU:C	2.51	0.78
5:S:2917:CYS:CA	5:S:2918:VAL:HB	2.14	0.78
1:C:2362:SER:C	4:G:2402:ILE:CD1	2.52	0.77
3:P:3597:MET:HE2	3:P:3660:THR:HG23	1.66	0.77
1:C:2058:PRO:CA	2:O:2744:ARG:NH1	2.48	0.77
5:R:1910:PHE:HD1	5:R:1917:CYS:HA	1.48	0.77
5:S:2856:ILE:CA	5:S:2859:TYR:CD2	2.67	0.77
5:T:3902:LEU:O	5:T:3903:THR:CG2	2.30	0.77
1:B:1090:GLY:C	2:N:1726:HIS:CD2	2.58	0.77
1:B:1040:PRO:HA	1:B:1127:ALA:HA	1.64	0.77
1:B:1389:ASN:HA	2:N:1839:TRP:CE3	2.19	0.77
5:R:1916:CYS:CA	5:R:1917:CYS:O	2.30	0.77
5:S:2907:THR:H	5:S:2921:THR:HG21	1.49	0.77
4:H:3421:VAL:CB	5:T:3884:THR:HB	2.13	0.77
5:T:3901:GLU:O	5:T:3902:LEU:CG	2.30	0.77
5:T:3856:ILE:CA	5:T:3859:TYR:CD2	2.63	0.77
1:A:192:PHE:HD2	1:B:1152:HIS:CD2	2.02	0.77
1:D:3016:LYS:HE2	1:D:3342:ALA:HB2	1.64	0.77
2:N:1549:GLN:HE22	2:N:1737:TYR:HE2	1.23	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:T:3910:PHE:O	5:T:3911:LEU:CG	2.32	0.77
1:A:291:VAL:HG22	1:C:2315:VAL:CB	2.15	0.77
1:C:2116:THR:HG23	2:O:2763:ASN:CG	2.04	0.77
1:C:2040:PRO:HA	1:C:2127:ALA:HA	1.65	0.77
3:P:3510:LYS:HG2	3:P:3560:ASP:O	1.85	0.77
3:P:3670:HIS:N	3:P:3736:GLN:O	2.15	0.77
2:N:1814:LYS:HZ3	1:D:3242:TYR:HA	1.49	0.77
1:C:2362:SER:CA	4:G:2402:ILE:CD1	2.58	0.77
6:J:1166:TYR:HB3	6:J:1256:VAL:HG11	1.67	0.77
2:N:1647:HIS:CE1	1:D:3225:ALA:HB3	2.20	0.77
5:T:3849:HIS:ND1	5:T:3855:ILE:HG13	1.99	0.77
1:B:1009:ASN:HB2	1:B:1274:GLY:O	1.84	0.77
2:N:1670:HIS:N	2:N:1736:GLN:O	2.17	0.77
1:B:1116:THR:HG21	2:N:1761:LEU:HD23	1.67	0.77
2:O:2673:PRO:HA	2:O:2732:HIS:NE2	1.99	0.77
2:O:2516:LEU:HD12	2:O:2570:MET:CG	2.15	0.77
2:O:2673:PRO:HA	2:O:2732:HIS:CE1	2.19	0.77
5:S:2860:TYR:O	5:S:2863:TYR:CE2	2.32	0.77
1:C:2091:GLY:CA	2:O:2678:ARG:HE	1.97	0.77
5:T:3902:LEU:HD12	6:L:3138:ASP:OD1	1.85	0.77
3:P:3509:TYR:CD2	3:P:3556:ILE:CD1	2.68	0.77
5:Q:910:PHE:O	5:Q:911:LEU:CG	2.32	0.77
2:N:1542:THR:CG2	2:N:1654:SER:OG	2.33	0.76
1:C:2090:GLY:CA	2:O:2678:ARG:H	1.98	0.76
5:R:1906:ALA:C	5:R:1910:PHE:HD2	1.86	0.76
5:S:2847:THR:OG1	5:S:2857:LEU:CD1	2.33	0.76
1:B:1242:TYR:HB2	2:O:2788:TYR:HH	1.47	0.76
1:C:2131:ALA:O	1:C:2145:THR:HG23	1.84	0.76
5:T:3856:ILE:HA	5:T:3859:TYR:HE2	0.96	0.76
1:C:2362:SER:C	4:G:2402:ILE:HD11	2.06	0.76
4:E:439:HIS:CD2	6:I:165:LYS:HD3	2.20	0.76
2:M:672:PRO:HB3	2:M:736:GLN:CD	2.01	0.76
2:N:1509:TYR:HA	2:N:1512:THR:OG1	1.83	0.76
2:O:2840:PRO:O	2:O:2841:GLN:CB	2.32	0.76
1:A:31:MET:HG2	1:A:135:VAL:HG22	1.67	0.76
5:S:2906:ALA:CB	5:S:2907:THR:O	2.33	0.76
5:R:1898:THR:CA	6:J:1165:LYS:HE3	2.15	0.76
1:C:2362:SER:OG	4:G:2402:ILE:HG21	1.84	0.76
2:N:1535:GLU:CG	2:N:1741:LEU:HD12	2.14	0.76
5:R:1908:VAL:CB	5:R:1909:PRO:HD3	2.04	0.76
1:D:3088:MET:HE2	3:P:3675:THR:CG2	2.14	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1775:THR:HG21	1:D:3197:PRO:O	1.86	0.76
2:N:1602:LEU:CG	2:N:1759:PHE:CD2	2.69	0.76
2:N:1609:GLU:O	2:O:2642:HIS:CE1	2.39	0.76
1:D:3090:GLY:C	3:P:3677:ASP:HA	2.04	0.76
5:Q:908:VAL:HG12	5:Q:909:PRO:N	2.00	0.76
5:R:1849:HIS:CA	5:R:1854:GLU:HB2	2.15	0.76
5:S:2902:LEU:HB3	6:K:2139:LYS:HE3	1.68	0.76
5:S:2909:PRO:HG2	5:S:2910:PHE:N	2.01	0.76
1:A:129:ALA:CB	1:A:166:MET:CG	2.64	0.76
1:A:295:SER:O	1:A:296:LEU:HG	1.86	0.76
3:P:3639:GLU:OE1	3:P:3791:HIS:CE1	2.38	0.76
5:R:1907:THR:O	5:R:1910:PHE:HD2	1.68	0.76
5:T:3907:THR:O	5:T:3910:PHE:HD2	1.68	0.76
1:C:2026:PRO:HD3	1:C:2371:SER:HG	1.47	0.76
4:F:1421:VAL:CB	5:R:1884:THR:CB	2.60	0.76
2:M:821:VAL:HG12	2:M:840:PRO:HD3	1.68	0.76
5:Q:910:PHE:CD1	5:Q:917:CYS:HA	2.21	0.76
1:B:1090:GLY:N	2:N:1676:PRO:HB3	2.00	0.76
4:H:3403:SER:H	4:H:3407:MET:HG2	1.51	0.76
3:P:3638:ARG:CD	3:P:3831:GLY:O	2.34	0.76
5:R:1856:ILE:HA	5:R:1859:TYR:HE2	0.96	0.76
5:T:3905:GLY:O	5:T:3906:ALA:HB3	1.86	0.76
1:C:2037:THR:HG22	1:C:2038:LEU:N	1.99	0.75
5:S:2847:THR:CB	5:S:2854:GLU:CG	2.65	0.75
1:A:130:SER:HA	1:A:148:ALA:H	1.51	0.75
1:B:1035:SER:O	1:B:1036:VAL:CG2	2.34	0.75
1:D:3387:ILE:HG13	3:P:3781:ASN:N	2.01	0.75
2:N:1645:PRO:CD	2:N:1769:PRO:HD3	2.13	0.75
5:Q:905:GLY:O	5:Q:906:ALA:HB3	1.86	0.75
5:R:1860:TYR:O	5:R:1863:TYR:CE2	2.32	0.75
1:C:2237:PRO:HG3	3:P:3788:TYR:CD2	2.21	0.75
5:S:2911:LEU:HG	5:S:2913:SER:CB	2.16	0.75
5:Q:902:LEU:CD1	6:I:139:LYS:HG2	2.16	0.75
5:Q:847:THR:OG1	5:Q:854:GLU:HG2	1.86	0.75
5:Q:907:THR:O	5:Q:910:PHE:HD2	1.68	0.75
5:R:1902:LEU:HB3	6:J:1139:LYS:CG	2.15	0.75
5:R:1905:GLY:O	5:R:1906:ALA:HB3	1.86	0.75
5:S:2911:LEU:HD23	5:S:2912:LEU:O	1.85	0.75
5:S:2851:HIS:HB3	5:S:2852:PRO:CD	2.16	0.75
5:T:3910:PHE:CD1	5:T:3917:CYS:HA	2.21	0.75
2:N:1647:HIS:NE2	1:D:3225:ALA:HB1	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:672:PRO:CB	2:M:673:PRO:HD2	2.13	0.75
5:Q:906:ALA:C	5:Q:910:PHE:HD2	1.86	0.75
1:D:3088:MET:HB2	3:P:3676:PRO:CG	2.17	0.75
1:D:3129:ALA:HB2	1:D:3166:MET:HG3	1.68	0.75
2:N:1729:VAL:HG12	2:N:1730:THR:H	1.51	0.75
5:Q:902:LEU:CD1	6:I:139:LYS:CG	2.65	0.75
5:R:1849:HIS:HA	5:R:1854:GLU:CB	2.08	0.75
5:S:2896:CYS:O	5:S:2897:ILE:O	2.04	0.75
5:S:2897:ILE:C	5:S:2899:PRO:CD	2.55	0.75
5:T:3848:ALA:O	5:T:3854:GLU:HB3	1.87	0.75
1:A:37:THR:HG23	1:A:267:ARG:HG3	1.67	0.75
2:N:1788:TYR:CD2	1:D:3237:PRO:CB	2.70	0.75
2:O:2677:ASP:HB3	2:O:2680:LEU:HD12	1.66	0.75
5:R:1910:PHE:CD1	5:R:1917:CYS:HA	2.21	0.75
6:J:1131:GLY:HA2	6:J:1219:SER:O	1.87	0.75
2:M:542:THR:N	2:M:654:SER:O	2.19	0.75
2:N:1513:ARG:H	2:N:1553:GLN:HE22	0.76	0.75
1:D:3037:THR:HG23	1:D:3267:ARG:HG3	1.68	0.74
5:S:2901:GLU:CA	5:S:2902:LEU:CG	2.30	0.74
1:C:2387:ILE:C	2:O:2841:GLN:O	2.24	0.74
2:N:1513:ARG:CG	2:N:1514:PRO:N	2.48	0.74
5:T:3918:VAL:HG22	5:T:3921:THR:H	1.52	0.74
5:R:1898:THR:CG2	6:J:1165:LYS:CB	2.64	0.74
2:N:1602:LEU:HD12	2:N:1759:PHE:CE1	2.22	0.74
1:C:2388:VAL:CA	2:O:2841:GLN:O	2.36	0.74
1:C:2362:SER:CB	4:G:2402:ILE:HD13	2.16	0.74
4:E:403:SER:H	4:E:407:MET:HG2	1.51	0.74
2:N:1670:HIS:CE1	2:N:1671:MET:O	2.41	0.74
1:D:3089:TRP:HE1	3:P:3572:ASN:CB	1.99	0.74
5:Q:918:VAL:HG22	5:Q:921:THR:H	1.52	0.74
5:R:1864:PRO:O	5:R:1865:THR:CB	2.35	0.74
4:F:1424:ALA:CB	5:R:1888:MET:SD	2.75	0.74
1:A:130:SER:HB2	1:A:147:TYR:HA	1.69	0.74
1:A:256:PRO:HB3	2:M:804:PRO:HD3	1.70	0.74
2:M:635:VAL:HG13	2:M:635:VAL:O	1.86	0.74
5:Q:910:PHE:O	5:Q:911:LEU:CB	2.36	0.74
5:Q:921:THR:O	5:Q:922:LYS:CB	2.36	0.74
5:R:1921:THR:O	5:R:1922:LYS:CB	2.36	0.74
5:S:2864:PRO:O	5:S:2865:THR:CB	2.35	0.74
5:T:3860:TYR:O	5:T:3863:TYR:CE2	2.32	0.74
1:B:1090:GLY:H	2:N:1676:PRO:CB	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3090:GLY:HA3	3:P:3677:ASP:HA	1.68	0.74
3:P:3513:ARG:HE	3:P:3736:GLN:HE21	1.34	0.74
4:E:428:LEU:HD11	5:Q:887:GLY:O	1.88	0.74
1:A:151:ASP:OD2	1:B:1192:PHE:N	2.20	0.74
1:C:2242:TYR:CD1	3:P:3814:LYS:CD	2.71	0.74
5:R:1898:THR:HG23	6:J:1165:LYS:HB2	1.66	0.74
3:P:3597:MET:CE	3:P:3660:THR:HG23	2.16	0.74
5:T:3849:HIS:C	5:T:3854:GLU:HG3	2.06	0.74
5:T:3910:PHE:O	5:T:3911:LEU:CB	2.36	0.74
1:A:252:GLN:O	2:M:798:ARG:NH1	2.20	0.74
4:H:3402:ILE:HB	4:H:3403:SER:CA	2.15	0.74
6:J:1166:TYR:CG	6:J:1256:VAL:HG12	2.22	0.74
2:N:1602:LEU:CD1	2:N:1759:PHE:CD1	2.68	0.74
2:N:1602:LEU:CD1	2:N:1759:PHE:CE1	2.71	0.74
1:C:2386:HIS:HA	5:S:2843:SER:N	2.02	0.74
5:S:2848:ALA:HA	5:S:2858:TYR:CZ	2.23	0.74
5:S:2893:ARG:O	5:S:2897:ILE:HG12	1.87	0.74
5:T:3921:THR:O	5:T:3922:LYS:CB	2.36	0.74
5:R:1847:THR:OG1	5:R:1857:LEU:HD12	1.88	0.74
5:S:2854:GLU:HA	5:S:2857:LEU:CD1	2.17	0.74
4:G:2428:LEU:CG	5:S:2895:ARG:HH21	2.01	0.74
1:D:3129:ALA:CB	1:D:3166:MET:CG	2.66	0.73
2:M:675:THR:O	2:M:728:ALA:HB1	1.88	0.73
2:N:1677:ASP:HB3	2:N:1680:LEU:HD12	1.70	0.73
2:N:1638:ARG:NH2	2:N:1794:LEU:HG	2.03	0.73
5:T:3906:ALA:C	5:T:3910:PHE:HD2	1.86	0.73
2:N:1647:HIS:ND1	1:D:3225:ALA:HB3	2.00	0.73
5:S:2849:HIS:HD1	5:S:2855:ILE:HG13	1.49	0.73
5:S:2907:THR:HA	5:S:2921:THR:CB	2.17	0.73
5:S:2908:VAL:C	5:S:2910:PHE:HB2	2.09	0.73
2:N:1524:GLU:OE2	2:O:2594:THR:HG21	1.86	0.73
5:Q:908:VAL:CB	5:Q:909:PRO:HD3	2.04	0.73
5:Q:918:VAL:HG22	5:Q:920:THR:H	1.53	0.73
5:R:1910:PHE:O	5:R:1911:LEU:CB	2.36	0.73
5:S:2905:GLY:O	5:S:2906:ALA:HB3	1.87	0.73
5:T:3864:PRO:O	5:T:3865:THR:CB	2.35	0.73
5:T:3908:VAL:HG12	5:T:3909:PRO:N	2.00	0.73
1:A:129:ALA:CB	1:A:148:ALA:HB3	2.19	0.73
6:J:1185:THR:HG22	6:J:1229:ARG:HB3	1.71	0.73
2:N:1509:TYR:CE1	2:N:1597:MET:SD	2.75	0.73
5:S:2910:PHE:CB	5:S:2911:LEU:N	2.51	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:3421:VAL:CG1	5:T:3884:THR:HG22	2.18	0.73
5:R:1860:TYR:C	5:R:1863:TYR:CD2	2.53	0.73
5:T:3918:VAL:HG22	5:T:3920:THR:H	1.53	0.73
6:J:1166:TYR:CG	6:J:1256:VAL:CG1	2.70	0.73
1:B:1237:PRO:CG	2:O:2788:TYR:CD2	2.70	0.73
4:F:1403:SER:N	4:F:1407:MET:CG	2.52	0.73
5:S:2847:THR:OG1	5:S:2857:LEU:HD13	1.89	0.73
6:I:185:THR:HG22	6:I:229:ARG:HB3	1.71	0.73
5:Q:864:PRO:O	5:Q:865:THR:CB	2.35	0.73
5:T:3860:TYR:C	5:T:3863:TYR:CD2	2.53	0.73
1:A:360:LEU:HB3	4:E:402:ILE:CD1	2.17	0.73
1:C:2297:THR:HG22	1:C:2298:ASP:H	1.53	0.73
6:K:2185:THR:HG22	6:K:2229:ARG:HB3	1.71	0.73
2:M:515:TYR:O	2:M:551:SER:OG	2.05	0.73
1:A:95:PHE:CB	2:M:700:LYS:CE	2.62	0.73
3:P:3509:TYR:O	3:P:3560:ASP:HB3	1.89	0.73
4:E:403:SER:N	4:E:407:MET:CG	2.52	0.72
4:G:2403:SER:N	4:G:2407:MET:CG	2.52	0.72
5:Q:860:TYR:C	5:Q:863:TYR:CD2	2.53	0.72
5:Q:910:PHE:CD2	5:Q:921:THR:HG21	2.24	0.72
5:R:1918:VAL:HG22	5:R:1921:THR:H	1.52	0.72
5:R:1918:VAL:HG22	5:R:1920:THR:H	1.53	0.72
1:D:3089:TRP:HE1	3:P:3572:ASN:HB3	1.53	0.72
2:N:1640:LYS:O	2:N:1792:PRO:CD	2.29	0.72
2:O:2520:PRO:HA	3:P:3646:GLN:HE21	1.51	0.72
2:O:2639:GLU:CB	2:O:2791:HIS:CE1	2.73	0.72
1:C:2040:PRO:HB3	1:C:2127:ALA:CB	2.19	0.72
1:D:3091:GLY:CA	3:P:3676:PRO:HB2	2.19	0.72
1:B:1393:SER:C	4:F:1394:HIS:CG	2.63	0.72
1:C:2388:VAL:H	2:O:2841:GLN:N	1.88	0.72
5:R:1872:SER:O	5:R:1876:PHE:CD2	2.43	0.72
1:A:116:THR:HG23	2:M:763:ASN:HD22	1.51	0.72
2:O:2525:GLY:CA	3:P:3644:ARG:HD3	2.18	0.72
5:T:3872:SER:O	5:T:3876:PHE:CD2	2.43	0.72
1:A:36:VAL:HA	1:A:131:ALA:HB2	1.70	0.72
2:N:1604:ARG:CZ	3:P:3524:GLU:O	2.37	0.72
3:P:3673:PRO:CG	3:P:3742:VAL:HG13	2.20	0.72
1:C:2242:TYR:CE1	3:P:3814:LYS:CD	2.73	0.72
1:A:90:GLY:O	2:M:726:HIS:HD2	1.70	0.72
4:G:2428:LEU:CD2	5:S:2895:ARG:HH21	2.02	0.72
4:H:3403:SER:N	4:H:3407:MET:CG	2.52	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:2847:THR:HB	5:S:2854:GLU:OE1	1.90	0.72
2:O:2639:GLU:OE2	2:O:2770:LYS:HA	1.88	0.72
1:B:1242:TYR:HA	2:O:2814:LYS:HZ3	1.53	0.72
4:E:432:LEU:CD1	5:Q:894:ARG:CD	2.67	0.72
5:S:2911:LEU:HD23	5:S:2913:SER:OG	1.85	0.72
5:T:3910:PHE:CD2	5:T:3921:THR:HG21	2.24	0.72
2:N:1643:SER:OG	3:P:3628:PRO:HG3	1.90	0.71
2:O:2640:LYS:HD2	2:O:2792:PRO:HD2	1.73	0.71
3:P:3542:THR:OG1	3:P:3653:CYS:HB2	1.90	0.71
1:A:14:PRO:O	4:E:394:HIS:CE1	2.43	0.71
1:A:168:SER:O	1:A:169:ALA:HA	1.88	0.71
1:C:2237:PRO:HG2	3:P:3788:TYR:CE2	2.25	0.71
4:H:3403:SER:H	4:H:3407:MET:CG	2.03	0.71
6:L:3185:THR:HG22	6:L:3229:ARG:HB3	1.71	0.71
2:N:1638:ARG:CZ	2:N:1794:LEU:CG	2.68	0.71
1:C:2293:ALA:C	1:C:2324:LYS:HE2	2.10	0.71
5:R:1847:THR:OG1	5:R:1857:LEU:CD1	2.38	0.71
5:R:1906:ALA:CB	5:R:1910:PHE:CD2	2.73	0.71
1:C:2242:TYR:HD1	3:P:3814:LYS:CE	1.99	0.71
2:N:1788:TYR:OH	1:D:3242:TYR:CG	2.40	0.71
5:R:1901:GLU:C	6:J:1170:CYS:SG	2.69	0.71
2:O:2639:GLU:CG	2:O:2791:HIS:CE1	2.72	0.71
5:R:1911:LEU:N	5:R:1913:SER:CB	2.54	0.71
5:R:1910:PHE:CD2	5:R:1921:THR:HG21	2.24	0.71
5:T:3907:THR:CG2	5:T:3921:THR:CB	2.69	0.71
2:O:2651:LEU:HD12	2:O:2768:VAL:CG2	2.20	0.71
1:C:2237:PRO:CG	3:P:3788:TYR:CD2	2.74	0.71
5:Q:872:SER:O	5:Q:876:PHE:CD2	2.43	0.71
1:A:36:VAL:HA	1:A:131:ALA:CB	2.20	0.71
5:T:3900:TYR:HE1	6:L:3161:LYS:HD3	1.50	0.71
2:N:1647:HIS:HE1	1:D:3228:THR:OG1	1.74	0.71
5:Q:907:THR:CG2	5:Q:921:THR:CB	2.69	0.71
1:A:95:PHE:HB2	2:M:700:LYS:HE2	1.69	0.71
5:Q:906:ALA:CB	5:Q:909:PRO:CD	2.34	0.71
5:R:1898:THR:H	6:J:1165:LYS:HE3	1.55	0.71
4:H:3421:VAL:CG1	5:T:3884:THR:CG2	2.67	0.71
4:E:403:SER:H	4:E:407:MET:CG	2.03	0.71
2:N:1602:LEU:HG	2:N:1759:PHE:CE2	2.24	0.71
3:P:3514:PRO:HG3	3:P:3568:ARG:HG2	1.72	0.71
5:S:2872:SER:O	5:S:2876:PHE:CD2	2.43	0.71
5:S:2903:THR:HB	5:S:2904:PRO:HD2	0.74	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:847:THR:HG1	5:Q:857:LEU:HD12	1.53	0.71
4:F:1428:LEU:HD13	5:R:1891:CYS:HB3	0.71	0.71
1:C:2026:PRO:HG2	1:C:2371:SER:OG	1.90	0.70
4:H:3421:VAL:CB	5:T:3884:THR:CG2	2.69	0.70
5:R:1848:ALA:C	5:R:1854:GLU:HB2	2.05	0.70
5:S:2900:TYR:CD2	5:S:2900:TYR:C	2.61	0.70
5:T:3906:ALA:CB	5:T:3910:PHE:CD2	2.73	0.70
2:N:1773:ASN:ND2	1:D:3234:SER:CB	2.54	0.70
2:O:2670:HIS:N	2:O:2736:GLN:O	2.24	0.70
2:O:2677:ASP:HB3	2:O:2680:LEU:CD1	2.20	0.70
5:R:1908:VAL:HG12	5:R:1909:PRO:N	2.00	0.70
1:C:2242:TYR:CD1	3:P:3814:LYS:CE	2.73	0.70
2:N:1507:ASN:ND2	2:N:1562:HIS:CE1	2.52	0.70
2:N:1638:ARG:CB	2:N:1794:LEU:HD23	2.12	0.70
5:S:2909:PRO:CG	5:S:2910:PHE:N	2.54	0.70
1:A:13:VAL:CG1	4:E:394:HIS:ND1	2.55	0.70
2:N:1773:ASN:ND2	1:D:3234:SER:OG	2.22	0.70
5:Q:906:ALA:CB	5:Q:910:PHE:CD2	2.73	0.70
3:P:3597:MET:HG2	3:P:3758:PRO:HG3	1.73	0.70
4:G:2428:LEU:CD2	5:S:2895:ARG:NH2	2.54	0.70
5:S:2906:ALA:HB2	5:S:2908:VAL:HB	1.71	0.70
2:M:698:ARG:HH21	2:M:732:HIS:CE1	2.09	0.70
2:N:1677:ASP:HB3	2:N:1680:LEU:CD1	2.22	0.70
1:C:2387:ILE:HD12	2:O:2840:PRO:CB	2.20	0.70
5:Q:856:ILE:HA	5:Q:859:TYR:HE2	0.96	0.70
5:R:1907:THR:CG2	5:R:1921:THR:CB	2.69	0.70
2:O:2842:LEU:C	5:S:2843:SER:N	2.44	0.70
5:S:2917:CYS:N	5:S:2918:VAL:CB	2.54	0.70
1:A:151:ASP:OD2	1:B:1191:PRO:C	2.30	0.70
1:D:3058:PRO:O	3:P:3743:PRO:CB	2.40	0.70
2:N:1673:PRO:CG	2:N:1743:PRO:CD	2.65	0.70
3:P:3677:ASP:HB3	3:P:3680:LEU:CD1	2.21	0.70
3:P:3596:THR:N	3:P:3759:PHE:CZ	2.60	0.70
4:E:421:VAL:HG22	5:Q:884:THR:C	2.10	0.70
5:Q:917:CYS:O	5:Q:920:THR:HG21	1.92	0.70
4:F:1399:VAL:HG13	4:F:1401:ASP:OD2	1.92	0.70
2:M:640:LYS:HD2	2:M:792:PRO:HB2	1.73	0.70
2:N:1644:ARG:HH11	3:P:3527:SER:CB	2.03	0.70
4:E:402:ILE:HB	4:E:403:SER:CA	2.15	0.70
5:R:1902:LEU:CG	6:J:1170:CYS:CB	2.67	0.70
5:S:2849:HIS:O	5:S:2854:GLU:CD	2.30	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1037:THR:HG22	1:B:1038:LEU:H	1.54	0.69
1:D:3393:SER:CA	4:H:3394:HIS:HD2	2.03	0.69
4:F:1428:LEU:HD23	5:R:1895:ARG:CZ	2.20	0.69
2:N:1525:GLY:CA	2:O:2644:ARG:HG2	2.22	0.69
2:N:1729:VAL:CG1	2:N:1730:THR:H	2.05	0.69
5:Q:910:PHE:CA	5:Q:913:SER:HB3	2.22	0.69
5:S:2910:PHE:HA	5:S:2918:VAL:HG12	1.74	0.69
1:A:31:MET:HG2	1:A:135:VAL:CG2	2.22	0.69
1:A:254:THR:O	2:M:804:PRO:CG	2.40	0.69
1:C:2242:TYR:CE1	3:P:3814:LYS:HD2	2.27	0.69
4:G:2428:LEU:HD11	5:S:2895:ARG:NH2	2.07	0.69
1:B:1385:ASP:H	2:N:1841:GLN:HE21	0.71	0.69
3:P:3639:GLU:CG	3:P:3791:HIS:NE2	2.55	0.69
5:R:1849:HIS:ND1	5:R:1855:ILE:HG13	2.06	0.69
5:S:2909:PRO:HD2	5:S:2910:PHE:N	2.08	0.69
4:H:3434:VAL:O	4:H:3438:ARG:HG3	1.93	0.69
2:M:641:PHE:CD1	2:M:769:PRO:HD2	2.28	0.69
5:S:2900:TYR:CE1	6:K:2161:LYS:HG3	1.97	0.69
4:E:399:VAL:HG13	4:E:401:ASP:OD2	1.92	0.69
6:J:1168:LEU:CD2	6:J:1256:VAL:HG21	2.22	0.69
3:P:3509:TYR:HE2	3:P:3562:HIS:HE1	1.40	0.69
1:D:3105:GLU:OE2	3:P:3744:ARG:NH1	2.25	0.69
5:Q:911:LEU:N	5:Q:913:SER:CB	2.54	0.69
5:R:1917:CYS:O	5:R:1920:THR:HG21	1.92	0.69
1:D:3055:ILE:O	3:P:3740:PRO:HB3	1.93	0.69
2:O:2639:GLU:CB	2:O:2791:HIS:NE2	2.56	0.69
3:P:3672:PRO:HG2	3:P:3731:ASN:CB	2.19	0.69
4:F:1428:LEU:CD2	5:R:1895:ARG:CZ	2.70	0.69
5:R:1910:PHE:CA	5:R:1913:SER:HB3	2.22	0.69
1:B:1388:VAL:H	2:N:1839:TRP:CB	2.04	0.69
1:C:2387:ILE:HD11	2:O:2781:ASN:CG	2.13	0.69
1:A:364:GLU:OE2	4:E:404:THR:HG21	1.93	0.69
4:G:2434:VAL:O	4:G:2438:ARG:HG3	1.93	0.69
4:H:3421:VAL:HG21	5:T:3884:THR:OG1	1.91	0.69
2:M:639:GLU:CG	2:M:832:ASN:H	2.06	0.69
1:D:3383:PRO:HG2	3:P:3842:MET:CB	2.22	0.69
5:Q:848:ALA:C	5:Q:854:GLU:CB	2.61	0.69
1:D:3055:ILE:C	3:P:3740:PRO:HB3	2.12	0.69
3:P:3594:THR:HB	3:P:3658:GLN:OE1	1.93	0.69
3:P:3597:MET:HB3	3:P:3758:PRO:HG2	1.74	0.69
5:S:2901:GLU:HG2	5:S:2902:LEU:CD1	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:2906:ALA:CB	5:S:2909:PRO:N	2.56	0.69
5:T:3911:LEU:N	5:T:3913:SER:CB	2.54	0.69
1:C:2035:SER:O	1:C:2036:VAL:CG2	2.40	0.69
1:D:3038:LEU:HD21	1:D:3166:MET:HE3	1.75	0.69
4:F:1434:VAL:O	4:F:1438:ARG:HG3	1.92	0.69
4:G:2395:THR:O	4:G:2397:LEU:CG	2.36	0.69
4:G:2399:VAL:HG13	4:G:2401:ASP:OD2	1.93	0.69
5:Q:854:GLU:HA	5:Q:857:LEU:HD12	1.74	0.69
5:T:3856:ILE:C	5:T:3859:TYR:CD2	2.62	0.69
5:T:3910:PHE:CA	5:T:3913:SER:HB3	2.22	0.69
1:B:1090:GLY:N	2:N:1676:PRO:CB	2.56	0.68
5:R:1902:LEU:N	6:J:1170:CYS:SG	2.66	0.68
4:E:434:VAL:O	4:E:438:ARG:HG3	1.93	0.68
4:H:3421:VAL:HG21	5:T:3884:THR:HG21	1.74	0.68
5:S:2863:TYR:N	5:S:2864:PRO:HD3	2.09	0.68
5:T:3854:GLU:HA	5:T:3857:LEU:HD12	1.74	0.68
1:D:3091:GLY:C	3:P:3676:PRO:HB3	2.12	0.68
5:R:1906:ALA:CB	5:R:1908:VAL:HB	2.21	0.68
5:S:2917:CYS:C	5:S:2918:VAL:CG2	2.58	0.68
2:N:1788:TYR:CD1	1:D:3237:PRO:CG	2.66	0.68
1:A:362:SER:CA	4:E:402:ILE:HD13	2.11	0.68
4:E:432:LEU:CG	5:Q:894:ARG:CD	2.68	0.68
2:M:547:LYS:HE3	2:M:759:PHE:HB2	1.73	0.68
5:S:2900:TYR:C	5:S:2902:LEU:CG	2.61	0.68
1:B:1295:SER:C	1:B:1296:LEU:HG	2.13	0.68
1:B:1360:LEU:N	4:F:1395:THR:CG2	2.52	0.68
4:H:3399:VAL:HG13	4:H:3401:ASP:OD2	1.92	0.68
5:R:1854:GLU:HA	5:R:1857:LEU:HD12	1.74	0.68
5:R:1863:TYR:N	5:R:1864:PRO:HD3	2.09	0.68
6:J:1136:VAL:CG2	6:J:1184:PHE:HD2	2.07	0.68
2:O:2516:LEU:HD12	2:O:2570:MET:HG2	1.75	0.68
1:C:2093:TYR:OH	2:O:2744:ARG:O	2.06	0.68
5:T:3917:CYS:O	5:T:3920:THR:HG21	1.92	0.68
1:C:2235:GLN:O	3:P:3772:ARG:NH2	2.27	0.68
6:J:1120:ILE:HD11	6:J:1224:PHE:CZ	2.26	0.68
1:B:1389:ASN:CA	2:N:1839:TRP:HZ3	1.98	0.68
1:D:3058:PRO:O	3:P:3743:PRO:HB3	1.94	0.68
1:A:36:VAL:O	1:A:270:ASN:N	2.27	0.68
2:N:1535:GLU:OE2	2:N:1741:LEU:CG	2.41	0.68
3:P:3649:LYS:N	3:P:3768:VAL:O	2.27	0.68
5:R:1910:PHE:HA	5:R:1913:SER:CB	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:2896:CYS:C	5:S:2899:PRO:HG2	2.14	0.68
1:C:2131:ALA:O	1:C:2145:THR:CG2	2.42	0.68
1:D:3038:LEU:HD21	1:D:3166:MET:CE	2.23	0.68
2:M:672:PRO:CB	2:M:736:GLN:CB	2.45	0.68
2:M:639:GLU:HG3	2:M:832:ASN:N	2.08	0.68
5:Q:905:GLY:O	5:Q:906:ALA:CB	2.42	0.68
5:T:3910:PHE:HA	5:T:3913:SER:CB	2.24	0.68
1:A:388:VAL:HA	2:M:841:GLN:CG	2.02	0.68
1:B:1040:PRO:HB3	1:B:1127:ALA:CB	2.22	0.68
5:Q:906:ALA:CB	5:Q:908:VAL:HB	2.21	0.68
5:S:2851:HIS:HB3	5:S:2852:PRO:HD3	1.71	0.68
5:S:2856:ILE:CB	5:S:2859:TYR:HE2	2.07	0.68
5:S:2906:ALA:HB2	5:S:2909:PRO:N	2.09	0.68
2:N:1543:ASP:CG	2:N:1655:THR:HG1	1.87	0.67
5:S:2864:PRO:C	5:S:2865:THR:HG23	2.14	0.67
5:T:3849:HIS:HB3	5:T:3850:GLY:HA2	0.75	0.67
6:I:227:LYS:HZ2	6:I:227:LYS:HB2	1.58	0.67
2:N:1509:TYR:CD2	2:N:1562:HIS:CE1	2.83	0.67
5:Q:910:PHE:HA	5:Q:913:SER:CB	2.24	0.67
5:S:2897:ILE:O	5:S:2900:TYR:N	2.28	0.67
4:H:3421:VAL:CG2	5:T:3884:THR:CG2	2.69	0.67
1:B:1035:SER:O	1:B:1036:VAL:HG22	1.93	0.67
4:E:439:HIS:CD2	6:I:165:LYS:CD	2.75	0.67
2:N:1509:TYR:CG	2:N:1556:ILE:HD11	2.29	0.67
5:S:2865:THR:O	5:S:2867:THR:N	2.28	0.67
5:S:2903:THR:CB	5:S:2904:PRO:CD	2.36	0.67
5:T:3905:GLY:O	5:T:3906:ALA:CB	2.42	0.67
1:C:2058:PRO:C	2:O:2744:ARG:NH1	2.48	0.67
4:F:1407:MET:SD	5:R:1855:ILE:HG12	2.34	0.67
4:E:432:LEU:HD21	5:Q:894:ARG:CD	2.23	0.67
5:R:1898:THR:N	6:J:1165:LYS:HE3	2.07	0.67
1:A:88:MET:SD	2:M:743:PRO:CG	2.82	0.67
1:D:3386:HIS:C	3:P:3842:MET:CA	2.63	0.67
4:H:3404:THR:O	4:H:3405:THR:C	2.33	0.67
1:D:3249:ALA:HB2	3:P:3806:TYR:CE2	2.29	0.67
5:S:2897:ILE:O	5:S:2898:THR:C	2.33	0.67
5:S:2898:THR:C	5:S:2900:TYR:H	1.98	0.67
5:S:2917:CYS:CA	5:S:2918:VAL:CG2	2.72	0.67
1:B:1237:PRO:HG3	2:O:2788:TYR:CB	2.24	0.67
3:P:3635:VAL:O	3:P:3635:VAL:CG1	2.39	0.67
5:Q:908:VAL:HB	5:Q:909:PRO:HD3	1.65	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1864:PRO:C	5:R:1865:THR:HG23	2.14	0.67
1:D:3388:VAL:HG12	3:P:3841:GLN:HA	1.75	0.67
4:H:3396:THR:C	4:H:3397:LEU:HG	2.13	0.67
2:M:698:ARG:NH2	2:M:732:HIS:CE1	2.58	0.67
2:N:1672:PRO:CA	2:N:1731:ASN:OD1	2.43	0.67
2:O:2638:ARG:HD3	2:O:2832:ASN:CA	2.25	0.67
5:Q:863:TYR:N	5:Q:864:PRO:HD3	2.09	0.67
5:T:3848:ALA:C	5:T:3854:GLU:HB3	2.16	0.67
5:T:3863:TYR:N	5:T:3864:PRO:HD3	2.09	0.67
5:T:3864:PRO:C	5:T:3865:THR:HG23	2.14	0.67
5:T:3908:VAL:HB	5:T:3909:PRO:HD3	1.65	0.67
1:B:1037:THR:CG2	1:B:1038:LEU:N	2.58	0.67
1:B:1258:GLY:HA2	2:N:1798:ARG:CZ	2.25	0.67
5:R:1865:THR:O	5:R:1867:THR:N	2.28	0.67
4:F:1428:LEU:HD23	5:R:1895:ARG:NH2	2.09	0.67
5:T:3914:LEU:O	5:T:3915:LEU:C	2.33	0.67
3:P:3595:GLY:C	3:P:3759:PHE:CZ	2.68	0.67
5:S:2897:ILE:O	5:S:2899:PRO:N	2.28	0.67
5:S:2898:THR:N	5:S:2899:PRO:HD2	2.10	0.67
6:J:1227:LYS:HB2	6:J:1227:LYS:HZ2	1.56	0.66
2:M:672:PRO:CA	2:M:736:GLN:HB2	2.25	0.66
2:N:1515:TYR:CE2	2:N:1551:SER:HA	2.30	0.66
5:Q:850:GLY:HA2	5:Q:851:HIS:O	1.95	0.66
5:Q:914:LEU:O	5:Q:915:LEU:C	2.33	0.66
5:S:2856:ILE:CG2	5:S:2859:TYR:CE2	2.77	0.66
5:T:3865:THR:O	5:T:3867:THR:N	2.28	0.66
2:N:1729:VAL:CG1	2:N:1730:THR:N	2.56	0.66
2:N:1638:ARG:HB3	2:N:1794:LEU:HD22	1.69	0.66
3:P:3509:TYR:CB	3:P:3556:ILE:HG23	2.24	0.66
5:Q:916:CYS:HA	5:Q:918:VAL:N	2.09	0.66
5:Q:849:HIS:HA	5:Q:854:GLU:CB	2.23	0.66
4:F:1409:TRP:HE1	5:R:1851:HIS:HE1	1.42	0.66
5:R:1856:ILE:C	5:R:1859:TYR:CD2	2.62	0.66
3:P:3638:ARG:HE	3:P:3831:GLY:CA	2.08	0.66
5:Q:865:THR:O	5:Q:867:THR:N	2.28	0.66
5:R:1898:THR:H	6:J:1165:LYS:NZ	1.94	0.66
5:R:1905:GLY:O	5:R:1906:ALA:CB	2.42	0.66
5:T:3897:ILE:O	5:T:3898:THR:C	2.34	0.66
4:G:2428:LEU:HD22	5:S:2895:ARG:NE	1.98	0.66
3:P:3513:ARG:HA	3:P:3568:ARG:NH2	2.10	0.66
5:R:1901:GLU:HG3	6:J:1168:LEU:CB	2.14	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:S:2849:HIS:HB3	5:S:2851:HIS:O	1.96	0.66
5:S:2849:HIS:CE1	5:S:2855:ILE:CD1	2.78	0.66
1:C:2028:VAL:HG23	1:C:2329:ALA:HB3	1.71	0.66
2:N:1649:LYS:HB3	2:N:1768:VAL:CG2	2.25	0.66
2:N:1640:LYS:HB2	2:N:1792:PRO:HG2	1.78	0.66
5:Q:864:PRO:C	5:Q:865:THR:HG23	2.14	0.66
5:S:2918:VAL:HG22	5:S:2919:ARG:CA	2.25	0.66
4:F:1403:SER:N	4:F:1407:MET:HG2	2.11	0.66
4:G:2404:THR:O	4:G:2405:THR:C	2.33	0.66
5:R:1914:LEU:O	5:R:1915:LEU:C	2.33	0.66
1:B:1393:SER:O	4:F:1394:HIS:CG	2.49	0.66
5:R:1898:THR:CG2	6:J:1165:LYS:HE3	2.17	0.66
2:M:639:GLU:OE1	2:M:770:LYS:HA	1.95	0.66
1:D:3231:VAL:HG23	3:P:3740:PRO:O	1.96	0.66
5:R:1898:THR:CG2	6:J:1165:LYS:HB2	2.25	0.66
5:S:2907:THR:O	5:S:2909:PRO:HD2	0.92	0.66
5:S:2907:THR:CG2	5:S:2921:THR:HB	2.24	0.66
5:T:3900:TYR:HE1	6:L:3161:LYS:CD	2.05	0.66
5:S:2856:ILE:C	5:S:2859:TYR:CD2	2.59	0.66
5:R:1898:THR:N	6:J:1165:LYS:CE	2.59	0.65
2:O:2542:THR:OG1	2:O:2654:SER:N	2.30	0.65
2:O:2638:ARG:CB	2:O:2832:ASN:ND2	2.59	0.65
5:Q:848:ALA:O	5:Q:849:HIS:CG	2.50	0.65
5:R:1918:VAL:CG1	5:R:1919:ARG:N	2.57	0.65
5:S:2907:THR:HA	5:S:2921:THR:HB	1.74	0.65
1:B:1037:THR:CG2	1:B:1038:LEU:H	2.08	0.65
1:C:2387:ILE:HA	2:O:2841:GLN:CA	2.25	0.65
4:F:1404:THR:O	4:F:1405:THR:C	2.33	0.65
2:N:1521:ASP:HB2	2:O:2643:SER:HB2	1.77	0.65
1:A:125:HIS:ND1	1:B:1126:THR:HG21	2.08	0.65
1:D:3389:ASN:C	3:P:3839:TRP:HB2	2.17	0.65
2:M:672:PRO:HB2	2:M:736:GLN:HE21	1.54	0.65
2:M:547:LYS:NZ	2:M:759:PHE:O	2.26	0.65
2:N:1609:GLU:HB2	2:O:2642:HIS:NE2	2.10	0.65
3:P:3509:TYR:O	3:P:3560:ASP:CB	2.44	0.65
1:B:1272:ALA:O	1:B:1273:VAL:CB	2.45	0.65
4:E:403:SER:N	4:E:407:MET:HG2	2.11	0.65
5:Q:900:TYR:HH	6:I:163:SER:HG	0.67	0.65
2:O:2841:GLN:OE1	2:O:2842:LEU:CD2	2.34	0.65
1:D:3090:GLY:C	3:P:3677:ASP:N	2.48	0.65
5:Q:856:ILE:C	5:Q:859:TYR:CD2	2.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:907:THR:H	5:Q:921:THR:CB	2.08	0.65
5:R:1907:THR:H	5:R:1921:THR:CB	2.08	0.65
5:S:2856:ILE:CB	5:S:2859:TYR:CE2	2.79	0.65
5:T:3907:THR:H	5:T:3921:THR:CB	2.08	0.65
5:T:3918:VAL:HA	5:T:3919:ARG:C	2.17	0.65
1:B:1037:THR:O	1:B:1038:LEU:HG	1.96	0.65
2:N:1842:LEU:O	5:R:1843:SER:N	2.30	0.65
5:S:2854:GLU:CG	5:S:2857:LEU:HD12	2.26	0.65
5:S:2849:HIS:N	5:S:2854:GLU:OE1	2.30	0.65
5:T:3913:SER:HB2	5:T:3917:CYS:HB3	1.79	0.65
1:A:95:PHE:CD1	2:M:700:LYS:HE3	2.32	0.65
4:E:396:THR:C	4:E:397:LEU:HG	2.15	0.65
5:S:2900:TYR:OH	6:K:2163:SER:CA	2.44	0.65
1:C:2058:PRO:HA	2:O:2744:ARG:NH1	2.11	0.65
5:Q:897:ILE:O	5:Q:900:TYR:N	2.30	0.65
1:B:1382:PRO:HB3	5:R:1843:SER:HA	1.79	0.65
5:S:2898:THR:O	5:S:2900:TYR:N	2.30	0.65
5:S:2900:TYR:CE2	5:S:2901:GLU:HB2	2.32	0.65
5:T:3914:LEU:O	5:T:3916:CYS:N	2.30	0.65
6:I:262:GLU:OE1	6:K:2175:VAL:CG1	2.44	0.65
2:M:542:THR:OG1	2:M:653:CYS:CB	2.37	0.65
2:N:1513:ARG:HG3	2:N:1514:PRO:CD	2.27	0.65
5:Q:918:VAL:HA	5:Q:919:ARG:C	2.17	0.65
5:Q:918:VAL:CG1	5:Q:919:ARG:N	2.57	0.65
5:S:2851:HIS:CB	5:S:2852:PRO:HD2	2.17	0.65
5:T:3897:ILE:O	5:T:3900:TYR:N	2.30	0.65
1:A:37:THR:CG2	1:A:267:ARG:HG3	2.26	0.65
1:B:1295:SER:O	1:B:1296:LEU:CG	2.44	0.65
1:D:3009:ASN:O	1:D:3272:ALA:HA	1.96	0.65
4:G:2403:SER:N	4:G:2407:MET:HG2	2.11	0.65
1:A:254:THR:HG22	2:M:806:TYR:HB3	1.79	0.65
5:Q:914:LEU:O	5:Q:916:CYS:N	2.30	0.65
5:R:1914:LEU:O	5:R:1916:CYS:N	2.30	0.65
5:S:2910:PHE:O	5:S:2911:LEU:CB	2.45	0.65
4:E:404:THR:O	4:E:405:THR:C	2.33	0.65
1:D:3254:THR:HG22	3:P:3806:TYR:HB3	1.78	0.65
5:S:2853:HIS:O	5:S:2855:ILE:N	2.30	0.65
5:T:3906:ALA:CB	5:T:3908:VAL:HB	2.21	0.65
4:H:3403:SER:N	4:H:3407:MET:HG2	2.11	0.65
5:R:1902:LEU:HD11	6:J:1171:ALA:HA	1.77	0.65
5:R:1907:THR:O	5:R:1910:PHE:N	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:T:3918:VAL:CG1	5:T:3919:ARG:N	2.57	0.65
5:R:1902:LEU:HD13	6:J:1139:LYS:CG	2.27	0.64
2:N:1645:PRO:CG	2:N:1769:PRO:CD	2.01	0.64
1:B:1385:ASP:CA	2:N:1841:GLN:NE2	2.37	0.64
5:R:1897:ILE:O	5:R:1900:TYR:N	2.30	0.64
5:T:3851:HIS:O	5:T:3852:PRO:C	2.35	0.64
5:T:3907:THR:HG22	5:T:3921:THR:HG1	1.62	0.64
2:O:2517:ALA:HB1	2:O:2741:LEU:CB	2.26	0.64
5:Q:916:CYS:N	5:Q:918:VAL:O	2.30	0.64
5:R:1916:CYS:N	5:R:1918:VAL:O	2.30	0.64
5:S:2911:LEU:HD23	5:S:2912:LEU:N	2.12	0.64
4:G:2395:THR:OG1	4:G:2396:THR:N	2.30	0.64
5:S:2848:ALA:C	5:S:2854:GLU:HB3	2.18	0.64
5:S:2901:GLU:CG	5:S:2902:LEU:HD12	2.26	0.64
1:C:2035:SER:O	1:C:2036:VAL:HG22	1.98	0.64
6:J:1145:HIS:HE1	6:J:1235:LEU:CD2	2.08	0.64
3:P:3597:MET:HE2	3:P:3660:THR:CG2	2.23	0.64
5:Q:897:ILE:HG22	5:Q:898:THR:H	1.62	0.64
5:R:1897:ILE:O	5:R:1898:THR:C	2.34	0.64
5:T:3862:LEU:C	5:T:3863:TYR:CD2	2.71	0.64
1:A:293:ALA:O	1:A:324:LYS:CE	2.45	0.64
1:D:3393:SER:OG	4:H:3394:HIS:HD2	1.80	0.64
1:D:3360:LEU:CD2	4:H:3402:ILE:CD1	2.05	0.64
5:R:1898:THR:N	6:J:1165:LYS:NZ	2.45	0.64
3:P:3639:GLU:HB3	3:P:3791:HIS:NE2	2.12	0.64
5:Q:907:THR:HG22	5:Q:921:THR:CB	2.27	0.64
1:A:125:HIS:CE1	1:B:1126:THR:HG21	2.32	0.64
2:M:674:ASP:O	2:M:675:THR:C	2.36	0.64
2:N:1525:GLY:C	2:O:2644:ARG:HG2	2.18	0.64
1:C:2242:TYR:CB	3:P:3814:LYS:HZ3	2.11	0.64
5:R:1862:LEU:C	5:R:1863:TYR:CD2	2.71	0.64
5:R:1918:VAL:HA	5:R:1919:ARG:C	2.17	0.64
1:B:1382:PRO:CB	5:R:1843:SER:HA	2.28	0.64
1:C:2041:THR:O	1:C:2042:LEU:HG	1.96	0.64
5:Q:902:LEU:HD11	6:I:139:LYS:HG2	1.80	0.64
2:O:2638:ARG:HB2	2:O:2832:ASN:CG	2.17	0.64
5:Q:851:HIS:O	5:Q:852:PRO:C	2.35	0.64
5:R:1911:LEU:N	5:R:1912:LEU:O	2.30	0.64
5:S:2862:LEU:C	5:S:2863:TYR:CD2	2.71	0.64
5:T:3907:THR:HG22	5:T:3921:THR:CB	2.27	0.64
1:D:3297:THR:HG22	1:D:3298:ASP:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:847:THR:OG1	5:Q:857:LEU:HD13	1.96	0.64
1:C:2016:LYS:CE	1:C:2342:ALA:CB	2.72	0.64
4:E:402:ILE:C	4:E:407:MET:HG3	2.19	0.64
5:T:3916:CYS:N	5:T:3918:VAL:O	2.30	0.64
1:D:3090:GLY:C	3:P:3677:ASP:CA	2.66	0.64
1:C:2362:SER:OG	4:G:2402:ILE:CD1	2.46	0.64
4:G:2404:THR:O	4:G:2407:MET:N	2.31	0.64
3:P:3516:LEU:HG	3:P:3570:MET:HB3	1.78	0.64
4:E:432:LEU:CD2	5:Q:894:ARG:HD3	2.27	0.64
5:T:3894:ARG:HA	5:T:3897:ILE:HG13	1.80	0.64
1:D:3089:TRP:CD2	3:P:3573:HIS:N	2.64	0.63
1:D:3037:THR:CG2	1:D:3267:ARG:HG3	2.28	0.63
4:E:404:THR:O	4:E:407:MET:N	2.31	0.63
5:T:3900:TYR:OH	6:L:3163:SER:HB2	1.98	0.63
1:D:3256:PRO:HB3	3:P:3802:GLU:O	1.97	0.63
5:Q:897:ILE:O	5:Q:898:THR:C	2.34	0.63
5:T:3850:GLY:HA2	5:T:3851:HIS:O	1.98	0.63
2:M:731:ASN:O	2:M:733:LYS:N	2.30	0.63
3:P:3672:PRO:HB2	3:P:3736:GLN:HE22	1.60	0.63
4:E:427:ILE:HG21	5:Q:895:ARG:HH21	1.62	0.63
5:S:2908:VAL:N	5:S:2909:PRO:HD3	1.97	0.63
1:A:130:SER:HA	1:A:148:ALA:N	2.13	0.63
1:A:130:SER:CB	1:A:147:TYR:HA	2.28	0.63
4:H:3404:THR:O	4:H:3407:MET:N	2.31	0.63
5:Q:862:LEU:C	5:Q:863:TYR:CD2	2.71	0.63
4:F:1428:LEU:CG	5:R:1891:CYS:HB3	2.25	0.63
5:T:3884:THR:O	5:T:3888:MET:HG2	1.98	0.63
4:H:3402:ILE:C	4:H:3407:MET:HG3	2.19	0.63
5:R:1894:ARG:HA	5:R:1897:ILE:HG13	1.80	0.63
5:R:1897:ILE:HG22	5:R:1898:THR:H	1.62	0.63
5:R:1907:THR:HG22	5:R:1921:THR:CB	2.27	0.63
5:S:2900:TYR:CD2	5:S:2901:GLU:HB2	2.33	0.63
5:T:3897:ILE:HG22	5:T:3898:THR:H	1.62	0.63
1:A:297:THR:O	1:A:298:ASP:C	2.36	0.63
2:M:641:PHE:CE1	2:M:769:PRO:HD2	2.34	0.63
5:Q:894:ARG:HA	5:Q:897:ILE:HG13	1.80	0.63
5:Q:911:LEU:N	5:Q:912:LEU:O	2.31	0.63
5:Q:913:SER:HB2	5:Q:917:CYS:HB3	1.79	0.63
1:B:1382:PRO:CG	5:R:1843:SER:HA	2.29	0.63
1:C:2037:THR:HG22	1:C:2038:LEU:H	1.63	0.63
2:N:1507:ASN:HD21	2:N:1562:HIS:CE1	2.15	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1535:GLU:OE1	2:N:1740:PRO:HD2	1.99	0.63
2:N:1673:PRO:HB3	2:N:1744:ARG:O	1.98	0.63
3:P:3507:ASN:HA	3:P:3562:HIS:HD2	1.58	0.63
4:F:1428:LEU:HD23	5:R:1895:ARG:HH21	1.63	0.63
5:T:3911:LEU:N	5:T:3912:LEU:O	2.30	0.63
1:B:1035:SER:C	1:B:1036:VAL:HG23	2.20	0.63
1:B:1041:THR:O	1:B:1042:LEU:HG	1.99	0.63
5:R:1902:LEU:CD1	6:J:1171:ALA:CA	2.62	0.63
2:N:1516:LEU:O	2:N:1742:VAL:HG22	1.97	0.63
2:N:1644:ARG:HH11	3:P:3527:SER:HB3	1.56	0.63
5:R:1884:THR:O	5:R:1888:MET:HG2	1.99	0.63
5:R:1902:LEU:CD1	6:J:1170:CYS:CB	2.42	0.63
5:R:1913:SER:HB2	5:R:1917:CYS:HB3	1.79	0.63
5:T:3849:HIS:O	5:T:3854:GLU:OE2	2.16	0.63
2:M:672:PRO:CB	2:M:673:PRO:CD	2.70	0.63
1:A:249:ALA:HB2	2:M:806:TYR:CE2	2.34	0.63
5:Q:902:LEU:HD11	6:I:139:LYS:CE	2.17	0.63
4:F:1404:THR:O	4:F:1407:MET:N	2.31	0.62
2:M:573:HIS:HE1	2:M:729:VAL:CB	1.96	0.62
3:P:3672:PRO:HB3	3:P:3736:GLN:OE1	1.94	0.62
3:P:3640:LYS:HB2	3:P:3792:PRO:HD2	1.79	0.62
5:Q:910:PHE:C	5:Q:913:SER:OG	2.38	0.62
5:S:2856:ILE:CG2	5:S:2859:TYR:CD2	2.81	0.62
1:C:2037:THR:O	1:C:2038:LEU:HG	1.98	0.62
4:F:1395:THR:C	4:F:1396:THR:HG23	2.19	0.62
2:O:2671:MET:C	2:O:2673:PRO:HD3	2.18	0.62
5:S:2843:SER:O	5:S:2844:THR:C	2.36	0.62
5:S:2848:ALA:N	5:S:2854:GLU:OE1	2.32	0.62
1:B:1009:ASN:HB3	1:B:1274:GLY:O	1.98	0.62
6:K:2227:LYS:HB2	6:K:2227:LYS:HZ2	1.63	0.62
2:N:1673:PRO:HG2	2:N:1743:PRO:CG	2.14	0.62
2:O:2651:LEU:CD1	2:O:2768:VAL:HG21	2.26	0.62
2:O:2639:GLU:CB	2:O:2769:PRO:HG2	2.27	0.62
5:R:1906:ALA:CB	5:R:1909:PRO:CD	2.34	0.62
5:R:1910:PHE:C	5:R:1913:SER:OG	2.38	0.62
5:S:2849:HIS:CE1	5:S:2855:ILE:HD11	2.34	0.62
3:P:3510:LYS:CA	3:P:3560:ASP:HB2	1.92	0.62
5:R:1902:LEU:CB	6:J:1170:CYS:SG	2.87	0.62
1:C:2272:ALA:O	1:C:2273:VAL:HB	1.98	0.62
6:J:1168:LEU:HD22	6:J:1256:VAL:HG21	1.81	0.62
2:N:1514:PRO:HA	2:N:1553:GLN:HG3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1640:LYS:HB2	2:N:1792:PRO:HB2	1.81	0.62
5:Q:884:THR:O	5:Q:888:MET:HG2	1.98	0.62
5:S:2918:VAL:HA	5:S:2919:ARG:HG2	1.80	0.62
5:T:3910:PHE:C	5:T:3913:SER:OG	2.38	0.62
1:A:254:THR:O	2:M:804:PRO:HG2	2.00	0.62
1:D:3253:HIS:O	3:P:3798:ARG:HD3	2.00	0.62
5:Q:907:THR:O	5:Q:910:PHE:N	2.30	0.62
5:S:2884:THR:O	5:S:2888:MET:HG2	1.99	0.62
1:C:2090:GLY:HA3	2:O:2678:ARG:N	2.14	0.62
2:N:1638:ARG:HB3	2:N:1794:LEU:HB2	1.82	0.62
2:N:1647:HIS:ND1	1:D:3225:ALA:HB2	2.09	0.62
4:H:3406:ALA:HA	4:H:3409:TRP:HD1	1.65	0.62
2:N:1646:GLN:HB2	3:P:3518:HIS:CE1	2.33	0.62
5:T:3906:ALA:CB	5:T:3909:PRO:CD	2.34	0.62
2:N:1513:ARG:HD3	2:N:1734:LYS:HB3	1.82	0.62
3:P:3670:HIS:O	3:P:3736:GLN:N	2.33	0.62
5:Q:848:ALA:C	5:Q:854:GLU:HB2	2.19	0.62
5:Q:910:PHE:HD1	5:Q:917:CYS:CA	2.13	0.62
1:B:1360:LEU:N	4:F:1395:THR:HG22	2.14	0.62
2:N:1514:PRO:HD2	2:N:1568:ARG:NE	2.14	0.62
2:N:1672:PRO:HB2	2:N:1731:ASN:ND2	2.06	0.62
2:N:1646:GLN:NE2	3:P:3518:HIS:CG	2.67	0.62
5:T:3910:PHE:HD1	5:T:3917:CYS:CA	2.13	0.62
4:E:432:LEU:HB3	4:E:436:PHE:HE2	1.65	0.61
2:N:1517:ALA:HB1	2:N:1741:LEU:HB3	1.81	0.61
3:P:3507:ASN:HA	3:P:3562:HIS:NE2	2.13	0.61
5:R:1910:PHE:HD1	5:R:1917:CYS:CA	2.13	0.61
5:R:1916:CYS:HA	5:R:1918:VAL:N	2.10	0.61
5:S:2915:LEU:O	5:S:2916:CYS:C	2.38	0.61
2:M:540:GLU:OE1	2:M:656:TYR:CZ	2.53	0.61
2:M:541:ALA:HA	2:M:654:SER:O	2.00	0.61
3:P:3595:GLY:HA3	3:P:3759:PHE:CE1	2.35	0.61
1:C:2037:THR:CG2	1:C:2038:LEU:N	2.63	0.61
2:N:1788:TYR:CE2	1:D:3237:PRO:HG2	2.34	0.61
2:N:1643:SER:H	3:P:3628:PRO:HG3	1.65	0.61
2:O:2672:PRO:O	2:O:2673:PRO:C	2.37	0.61
5:S:2849:HIS:HE1	5:S:2855:ILE:CD1	2.09	0.61
1:A:42:LEU:HD11	1:A:266:VAL:CG2	2.30	0.61
1:D:3042:LEU:HD11	1:D:3266:VAL:CG2	2.30	0.61
1:D:3129:ALA:HB3	1:D:3166:MET:CG	2.30	0.61
4:H:3432:LEU:HB3	4:H:3436:PHE:HE2	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1512:THR:O	2:N:1568:ARG:NH2	2.31	0.61
1:D:3386:HIS:HA	3:P:3842:MET:HA	1.82	0.61
5:S:2910:PHE:CD1	5:S:2921:THR:CB	2.83	0.61
5:T:3919:ARG:C	5:T:3920:THR:HG23	2.20	0.61
1:A:37:THR:N	1:A:130:SER:O	2.34	0.61
4:F:1406:ALA:HA	4:F:1409:TRP:HD1	1.65	0.61
4:G:2406:ALA:HA	4:G:2409:TRP:HD1	1.65	0.61
2:M:513:ARG:NH2	2:M:673:PRO:HG2	2.16	0.61
2:N:1647:HIS:CG	1:D:3225:ALA:HB2	2.33	0.61
3:P:3509:TYR:HA	3:P:3512:THR:OG1	2.01	0.61
5:Q:848:ALA:O	5:Q:854:GLU:CB	2.47	0.61
1:C:2388:VAL:N	2:O:2841:GLN:C	2.54	0.61
5:S:2911:LEU:HD12	5:S:2918:VAL:C	2.21	0.61
5:T:3913:SER:CB	5:T:3917:CYS:HB3	2.31	0.61
1:A:95:PHE:CB	2:M:700:LYS:HE3	2.30	0.61
2:N:1788:TYR:CB	1:D:3237:PRO:CG	2.56	0.61
2:M:547:LYS:CE	2:M:759:PHE:HB2	2.31	0.61
3:P:3639:GLU:CD	3:P:3791:HIS:NE2	2.53	0.61
5:Q:907:THR:CA	5:Q:910:PHE:HD2	2.13	0.61
5:S:2851:HIS:HB2	5:S:2852:PRO:HD3	1.80	0.61
4:G:2394:HIS:C	4:G:2395:THR:CG2	2.64	0.61
6:I:240:GLU:CB	6:K:2176:HIS:HA	2.31	0.61
2:M:541:ALA:HB2	2:M:655:THR:HA	1.80	0.61
5:R:1851:HIS:O	5:R:1852:PRO:C	2.39	0.61
4:E:406:ALA:HA	4:E:409:TRP:HD1	1.65	0.61
2:M:640:LYS:HE3	2:M:810:TRP:CH2	2.36	0.61
2:N:1731:ASN:O	2:N:1732:HIS:ND1	2.34	0.61
2:O:2535:GLU:OE1	2:O:2740:PRO:HD2	2.00	0.61
2:O:2768:VAL:HB	2:O:2769:PRO:HD2	1.83	0.61
5:Q:911:LEU:HG	5:Q:913:SER:OG	2.01	0.61
5:R:1907:THR:CA	5:R:1910:PHE:HD2	2.13	0.61
5:R:1913:SER:CB	5:R:1917:CYS:HB3	2.31	0.61
1:A:88:MET:SD	2:M:743:PRO:CD	2.89	0.60
1:D:3129:ALA:HB3	1:D:3166:MET:HG3	1.82	0.60
4:F:1402:ILE:CG2	4:F:1403:SER:HA	2.28	0.60
4:F:1403:SER:HB2	5:R:1848:ALA:CB	2.28	0.60
5:T:3907:THR:CA	5:T:3910:PHE:HD2	2.13	0.60
5:T:3907:THR:O	5:T:3910:PHE:N	2.30	0.60
4:G:2428:LEU:HD11	5:S:2895:ARG:CZ	2.31	0.60
2:N:1592:THR:HG1	3:P:3524:GLU:CD	2.04	0.60
2:N:1672:PRO:HD2	2:N:1731:ASN:HB2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:2527:SER:OG	3:P:3646:GLN:CD	2.25	0.60
5:R:1911:LEU:HG	5:R:1913:SER:OG	2.01	0.60
1:A:291:VAL:HG22	1:C:2315:VAL:HG21	0.61	0.60
2:N:1535:GLU:HA	2:N:1741:LEU:HD11	1.84	0.60
2:N:1609:GLU:CB	2:O:2642:HIS:CE1	2.76	0.60
2:N:1644:ARG:HD3	3:P:3525:GLY:O	1.99	0.60
5:R:1919:ARG:C	5:R:1920:THR:HG23	2.20	0.60
5:S:2916:CYS:N	5:S:2917:CYS:SG	2.74	0.60
6:J:1166:TYR:CB	6:J:1256:VAL:HG11	2.31	0.60
2:N:1728:ALA:C	2:N:1729:VAL:HG23	2.20	0.60
5:Q:919:ARG:C	5:Q:920:THR:HG23	2.20	0.60
5:S:2902:LEU:O	5:S:2903:THR:CB	2.49	0.60
4:G:2403:SER:N	4:G:2407:MET:HG3	2.17	0.60
5:Q:902:LEU:HD11	6:I:139:LYS:CG	2.29	0.60
4:F:1421:VAL:CG2	5:R:1884:THR:CB	2.43	0.60
1:A:254:THR:HG22	2:M:806:TYR:CB	2.30	0.60
6:J:1166:TYR:CG	6:J:1256:VAL:HG11	2.37	0.60
2:M:509:TYR:HA	2:M:512:THR:OG1	2.00	0.60
1:A:362:SER:CB	4:E:402:ILE:HG22	2.14	0.60
1:A:254:THR:O	2:M:804:PRO:HG3	2.02	0.60
3:P:3507:ASN:ND2	3:P:3562:HIS:N	2.49	0.60
4:E:403:SER:N	4:E:407:MET:HG3	2.17	0.60
5:R:1902:LEU:HD13	6:J:1171:ALA:O	2.01	0.60
2:M:641:PHE:CE1	2:M:768:VAL:HG12	2.37	0.60
3:P:3639:GLU:CB	3:P:3791:HIS:CD2	2.85	0.60
5:S:2907:THR:N	5:S:2921:THR:CG2	2.56	0.60
5:S:2913:SER:O	5:S:2915:LEU:N	2.34	0.60
4:H:3432:LEU:HD11	5:T:3894:ARG:HD3	1.84	0.60
5:T:3911:LEU:HG	5:T:3913:SER:OG	2.01	0.60
1:A:229:VAL:HG21	2:M:743:PRO:HG3	1.82	0.60
4:G:2394:HIS:O	4:G:2395:THR:CB	2.50	0.60
4:G:2432:LEU:HB3	4:G:2436:PHE:HE2	1.65	0.60
5:R:1849:HIS:O	5:R:1854:GLU:CG	2.50	0.60
5:R:1908:VAL:HB	5:R:1909:PRO:HD3	1.65	0.60
5:S:2905:GLY:O	5:S:2906:ALA:CB	2.48	0.60
1:C:2059:TYR:N	2:O:2744:ARG:NH1	2.50	0.60
1:D:3297:THR:O	1:D:3298:ASP:C	2.39	0.60
2:M:541:ALA:HB1	2:M:655:THR:HA	1.83	0.60
2:M:639:GLU:HG3	2:M:832:ASN:H	1.66	0.60
5:S:2862:LEU:N	5:S:2863:TYR:CD2	2.70	0.60
5:T:3862:LEU:N	5:T:3863:TYR:CD2	2.70	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:130:SER:CA	1:A:148:ALA:H	2.15	0.59
4:F:1397:LEU:O	5:R:1862:LEU:HD13	2.01	0.59
4:G:2428:LEU:CD1	5:S:2895:ARG:HE	2.13	0.59
4:G:2428:LEU:O	4:G:2432:LEU:HG	2.02	0.59
4:H:3403:SER:N	4:H:3407:MET:HG3	2.17	0.59
5:R:1862:LEU:N	5:R:1863:TYR:CD2	2.70	0.59
5:T:3863:TYR:N	5:T:3864:PRO:CD	2.65	0.59
4:H:3421:VAL:CB	5:T:3884:THR:CB	2.75	0.59
5:T:3916:CYS:HA	5:T:3918:VAL:N	2.09	0.59
1:C:2293:ALA:C	1:C:2324:LYS:CE	2.70	0.59
2:O:2841:GLN:HE22	2:O:2842:LEU:CD2	2.12	0.59
5:Q:862:LEU:N	5:Q:863:TYR:CD2	2.70	0.59
4:H:3428:LEU:O	4:H:3432:LEU:HG	2.02	0.59
2:O:2524:GLU:OE2	3:P:3592:THR:O	2.19	0.59
5:R:1921:THR:O	5:R:1922:LYS:HB2	2.03	0.59
5:S:2863:TYR:N	5:S:2864:PRO:CD	2.65	0.59
5:T:3910:PHE:O	5:T:3911:LEU:HB2	2.02	0.59
1:C:2089:TRP:CZ3	2:O:2677:ASP:CB	2.74	0.59
5:R:1902:LEU:O	5:R:1903:THR:CB	2.50	0.59
1:C:2035:SER:C	1:C:2036:VAL:HG23	2.23	0.59
4:F:1428:LEU:O	4:F:1432:LEU:HG	2.02	0.59
1:C:2089:TRP:CH2	2:O:2677:ASP:CA	2.81	0.59
1:A:295:SER:C	1:A:296:LEU:HG	2.22	0.59
1:A:360:LEU:CB	4:E:402:ILE:HD11	2.20	0.59
2:M:540:GLU:HB2	2:M:761:LEU:HD13	1.84	0.59
3:P:3673:PRO:HD3	3:P:3742:VAL:CG1	2.33	0.59
5:R:1863:TYR:N	5:R:1864:PRO:CD	2.65	0.59
5:T:3873:VAL:O	5:T:3877:VAL:HG23	2.03	0.59
1:B:1060:VAL:HG22	1:B:1102:GLN:HG3	1.85	0.59
4:F:1428:LEU:CD2	5:R:1895:ARG:NH2	2.66	0.59
2:O:2628:PRO:HB3	3:P:3643:SER:HG	1.66	0.59
2:O:2638:ARG:HD3	2:O:2832:ASN:OD1	2.02	0.59
3:P:3513:ARG:HH12	3:P:3731:ASN:HD22	0.69	0.59
1:D:3386:HIS:HA	3:P:3842:MET:CA	2.02	0.59
5:Q:913:SER:CB	5:Q:917:CYS:HB3	2.31	0.59
5:R:1902:LEU:CD1	6:J:1171:ALA:H	2.10	0.59
5:S:2909:PRO:C	5:S:2910:PHE:HB2	2.22	0.59
4:H:3421:VAL:HG22	5:T:3884:THR:HB	1.74	0.59
5:T:3907:THR:H	5:T:3921:THR:HG22	1.64	0.59
1:A:95:PHE:HD1	2:M:700:LYS:HE3	1.66	0.59
4:E:428:LEU:O	4:E:432:LEU:HG	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:3509:TYR:CD2	3:P:3556:ILE:HG13	2.33	0.59
5:Q:910:PHE:O	5:Q:911:LEU:HB2	2.03	0.59
5:R:1907:THR:C	5:R:1910:PHE:HD2	2.05	0.59
5:T:3910:PHE:CA	5:T:3913:SER:CB	2.80	0.59
5:T:3918:VAL:CG2	5:T:3921:THR:H	2.15	0.59
1:B:1290:VAL:O	1:B:1292:ASP:N	2.36	0.59
1:D:3249:ALA:CB	3:P:3806:TYR:CE2	2.86	0.59
4:F:1403:SER:N	4:F:1407:MET:HG3	2.17	0.59
1:C:2092:ALA:N	2:O:2678:ARG:HH21	2.01	0.59
2:O:2628:PRO:CB	3:P:3643:SER:OG	2.48	0.59
5:R:1873:VAL:O	5:R:1877:VAL:HG23	2.03	0.59
5:R:1910:PHE:CA	5:R:1913:SER:CB	2.80	0.59
5:R:1910:PHE:CD2	5:R:1921:THR:CG2	2.86	0.59
1:C:2089:TRP:CH2	2:O:2677:ASP:HA	2.37	0.59
6:I:240:GLU:HB2	6:K:2176:HIS:HA	1.84	0.59
3:P:3560:ASP:CG	3:P:3734:LYS:NZ	2.56	0.59
5:Q:902:LEU:O	5:Q:903:THR:CB	2.49	0.59
5:Q:910:PHE:CD2	5:Q:921:THR:CG2	2.86	0.59
1:D:3060:VAL:HG22	1:D:3102:GLN:HG3	1.85	0.58
6:K:2123:VAL:HG11	6:K:2146:VAL:HG12	1.85	0.58
2:N:1644:ARG:CD	3:P:3525:GLY:O	2.51	0.58
2:O:2671:MET:O	2:O:2673:PRO:CD	2.48	0.58
3:P:3507:ASN:HD21	3:P:3562:HIS:N	2.01	0.58
5:Q:907:THR:H	5:Q:921:THR:HG22	1.64	0.58
5:Q:910:PHE:HA	5:Q:913:SER:HB3	1.85	0.58
5:Q:918:VAL:HG23	5:Q:921:THR:HG23	1.85	0.58
5:S:2911:LEU:CD2	5:S:2912:LEU:N	2.66	0.58
5:T:3910:PHE:CD2	5:T:3921:THR:CG2	2.86	0.58
5:R:1910:PHE:O	5:R:1911:LEU:HB2	2.03	0.58
5:S:2917:CYS:O	5:S:2918:VAL:HG11	2.03	0.58
1:A:293:ALA:O	1:A:324:LYS:HE3	2.03	0.58
2:N:1669:VAL:HG12	2:N:1737:TYR:HA	1.84	0.58
3:P:3514:PRO:HD3	3:P:3568:ARG:NE	2.18	0.58
5:Q:863:TYR:N	5:Q:864:PRO:CD	2.66	0.58
5:R:1849:HIS:HB2	5:R:1850:GLY:HA3	1.80	0.58
5:S:2912:LEU:CA	5:S:2913:SER:CB	2.59	0.58
5:T:3921:THR:O	5:T:3922:LYS:HB2	2.02	0.58
1:A:60:VAL:HG22	1:A:102:GLN:HG3	1.85	0.58
4:G:2395:THR:O	4:G:2396:THR:C	2.40	0.58
6:L:3227:LYS:HZ2	6:L:3227:LYS:HB2	1.65	0.58
5:Q:907:THR:C	5:Q:910:PHE:HD2	2.05	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:921:THR:O	5:Q:922:LYS:HB2	2.03	0.58
5:R:1918:VAL:CG2	5:R:1921:THR:H	2.15	0.58
5:R:1918:VAL:HG23	5:R:1921:THR:HG23	1.85	0.58
5:T:3907:THR:C	5:T:3910:PHE:HD2	2.05	0.58
1:D:3093:TYR:CD1	3:P:3674:ASP:O	2.55	0.58
2:M:638:ARG:NH2	2:M:829:THR:CB	2.65	0.58
1:D:3057:SER:CB	3:P:3739:SER:O	2.51	0.58
5:R:1918:VAL:HG22	5:R:1920:THR:N	2.19	0.58
5:S:2917:CYS:O	5:S:2921:THR:HG23	2.03	0.58
2:O:2640:LYS:H	2:O:2791:HIS:CD2	2.22	0.58
5:T:3918:VAL:HG12	5:T:3919:ARG:N	2.19	0.58
1:C:2018:LEU:HD22	1:C:2368:GLN:NE2	2.14	0.58
1:C:2037:THR:CG2	1:C:2038:LEU:H	2.16	0.58
4:F:1432:LEU:HB3	4:F:1436:PHE:HE2	1.66	0.58
2:M:513:ARG:HH21	2:M:673:PRO:CD	2.17	0.58
2:O:2524:GLU:OE2	3:P:3592:THR:C	2.41	0.58
4:F:1414:THR:HB	5:R:1877:VAL:HG11	1.86	0.58
5:S:2854:GLU:HG2	5:S:2857:LEU:CD1	2.31	0.58
5:T:3915:LEU:O	5:T:3916:CYS:CB	2.51	0.58
1:A:95:PHE:HB2	2:M:700:LYS:HZ1	1.65	0.58
2:N:1647:HIS:CE1	1:D:3228:THR:OG1	2.57	0.58
2:N:1521:ASP:HB2	2:O:2643:SER:CB	2.34	0.58
5:Q:873:VAL:O	5:Q:877:VAL:HG23	2.03	0.58
5:R:1918:VAL:HG12	5:R:1919:ARG:N	2.19	0.58
2:O:2638:ARG:HD3	2:O:2832:ASN:CG	2.24	0.58
5:S:2873:VAL:O	5:S:2877:VAL:HG23	2.03	0.58
5:T:3869:VAL:O	5:T:3873:VAL:HG23	2.04	0.58
3:P:3636:ILE:O	3:P:3636:ILE:HG22	2.04	0.58
3:P:3638:ARG:HD3	3:P:3831:GLY:O	2.03	0.58
5:S:2852:PRO:O	5:S:2855:ILE:N	2.30	0.58
5:S:2869:VAL:O	5:S:2873:VAL:HG23	2.04	0.58
1:C:2060:VAL:HG22	1:C:2102:GLN:HG3	1.84	0.57
1:C:2294:PRO:HG3	1:C:2324:LYS:HG3	1.86	0.57
6:I:123:VAL:HG11	6:I:146:VAL:HG12	1.85	0.57
1:C:2059:TYR:N	2:O:2744:ARG:CZ	2.67	0.57
2:O:2841:GLN:NE2	2:O:2842:LEU:HD21	2.18	0.57
5:Q:869:VAL:O	5:Q:873:VAL:HG23	2.04	0.57
5:S:2917:CYS:CA	5:S:2918:VAL:CB	2.82	0.57
5:T:3902:LEU:O	5:T:3903:THR:CB	2.49	0.57
5:T:3906:ALA:HB2	5:T:3909:PRO:CG	2.30	0.57
6:L:3123:VAL:HG11	6:L:3146:VAL:HG12	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1242:TYR:CB	2:O:2788:TYR:HH	2.08	0.57
5:Q:911:LEU:HA	5:Q:913:SER:N	2.19	0.57
4:E:406:ALA:HA	4:E:409:TRP:CD1	2.39	0.57
2:O:2517:ALA:HB1	2:O:2741:LEU:HB3	1.85	0.57
5:S:2909:PRO:CD	5:S:2910:PHE:N	2.67	0.57
5:T:3911:LEU:HA	5:T:3913:SER:N	2.19	0.57
5:T:3918:VAL:HG23	5:T:3921:THR:HG23	1.85	0.57
1:B:1039:GLU:O	1:B:1128:SER:N	2.25	0.57
4:E:408:SER:O	4:E:412:LYS:HG3	2.04	0.57
4:F:1405:THR:O	4:F:1408:SER:N	2.38	0.57
4:H:3406:ALA:HA	4:H:3409:TRP:CD1	2.39	0.57
2:M:672:PRO:HB3	2:M:736:GLN:NE2	2.15	0.57
3:P:3509:TYR:HB3	3:P:3556:ILE:HG23	1.77	0.57
4:F:1421:VAL:CG1	5:R:1884:THR:CB	2.58	0.57
5:S:2847:THR:OG1	5:S:2857:LEU:HD12	2.03	0.57
5:S:2907:THR:O	5:S:2908:VAL:C	2.42	0.57
1:A:257:PHE:CA	2:M:801:GLY:O	2.50	0.57
4:G:2405:THR:O	4:G:2408:SER:N	2.38	0.57
6:K:2208:THR:HG22	6:K:2245:ALA:HA	1.87	0.57
1:C:2242:TYR:HE1	3:P:3814:LYS:HD2	1.70	0.57
4:F:1408:SER:O	4:F:1412:LYS:HG3	2.04	0.57
4:G:2408:SER:O	4:G:2412:LYS:HG3	2.04	0.57
4:H:3408:SER:O	4:H:3412:LYS:HG3	2.04	0.57
5:S:2918:VAL:HG22	5:S:2920:THR:N	2.15	0.57
5:T:3902:LEU:C	5:T:3903:THR:CG2	2.64	0.57
1:C:2131:ALA:C	1:C:2145:THR:HG23	2.25	0.57
1:D:3089:TRP:HE3	3:P:3675:THR:CG2	2.18	0.57
2:N:1788:TYR:CE1	1:D:3237:PRO:HG2	2.40	0.57
1:D:3249:ALA:HB2	3:P:3806:TYR:CZ	2.40	0.57
6:L:3208:THR:HG22	6:L:3245:ALA:HA	1.87	0.57
2:N:1513:ARG:CB	2:N:1514:PRO:CD	2.81	0.57
5:R:1915:LEU:O	5:R:1916:CYS:CB	2.51	0.57
5:T:3918:VAL:HG22	5:T:3920:THR:N	2.19	0.57
3:P:3632:ASP:O	3:P:3633:PRO:C	2.43	0.57
4:E:417:VAL:HG12	5:Q:881:MET:HA	1.85	0.57
5:Q:902:LEU:C	5:Q:903:THR:CG2	2.64	0.57
5:S:2912:LEU:C	5:S:2913:SER:CB	2.73	0.57
1:C:2297:THR:HG22	1:C:2298:ASP:N	2.19	0.57
1:D:3089:TRP:CZ2	3:P:3572:ASN:O	2.56	0.57
2:N:1549:GLN:NE2	2:N:1737:TYR:CZ	2.45	0.57
2:O:2609:GLU:HG3	3:P:3642:HIS:CE1	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:3674:ASP:HB3	3:P:3730:THR:HG22	1.86	0.57
5:S:2909:PRO:HD2	5:S:2910:PHE:CA	2.34	0.57
5:T:3906:ALA:CA	5:T:3907:THR:O	2.53	0.57
4:G:2406:ALA:HA	4:G:2409:TRP:CD1	2.39	0.57
2:O:2516:LEU:HG	2:O:2570:MET:HB3	1.86	0.57
2:O:2527:SER:HB3	3:P:3646:GLN:HG3	0.58	0.57
3:P:3673:PRO:CD	3:P:3742:VAL:CG1	2.83	0.57
1:D:3388:VAL:CG1	3:P:3841:GLN:HA	2.33	0.57
5:Q:918:VAL:CG2	5:Q:921:THR:H	2.15	0.57
5:R:1911:LEU:HA	5:R:1913:SER:N	2.19	0.57
1:C:2018:LEU:CD2	1:C:2368:GLN:CD	2.73	0.56
6:J:1123:VAL:HG11	6:J:1146:VAL:HG12	1.85	0.56
6:K:2188:LYS:HE3	6:K:2250:THR:HG21	1.87	0.56
2:M:547:LYS:NZ	2:M:758:PRO:O	2.19	0.56
5:Q:918:VAL:HG22	5:Q:920:THR:N	2.19	0.56
1:C:2242:TYR:CE1	3:P:3814:LYS:HD3	2.40	0.56
4:H:3405:THR:O	4:H:3408:SER:N	2.38	0.56
1:D:3254:THR:O	3:P:3804:PRO:CG	2.53	0.56
5:S:2914:LEU:O	5:S:2915:LEU:C	2.32	0.56
1:A:291:VAL:HG13	1:C:2315:VAL:CG1	2.33	0.56
1:C:2016:LYS:HE3	1:C:2342:ALA:HB2	1.88	0.56
4:E:405:THR:O	4:E:408:SER:N	2.38	0.56
2:M:769:PRO:O	2:M:832:ASN:HB2	2.05	0.56
2:N:1509:TYR:HD1	2:N:1556:ILE:HD11	1.66	0.56
1:C:2089:TRP:CZ3	2:O:2677:ASP:HB2	2.38	0.56
1:C:2387:ILE:CG2	2:O:2840:PRO:CA	2.24	0.56
4:F:1406:ALA:HA	4:F:1409:TRP:CD1	2.39	0.56
6:I:188:LYS:HE3	6:I:250:THR:HG21	1.87	0.56
6:I:262:GLU:HB3	6:K:2175:VAL:HG12	1.86	0.56
2:N:1542:THR:OG1	2:N:1654:SER:N	2.31	0.56
2:O:2509:TYR:HA	2:O:2512:THR:HG1	1.65	0.56
1:C:2089:TRP:HH2	2:O:2573:HIS:HD2	1.53	0.56
5:Q:918:VAL:HG12	5:Q:919:ARG:N	2.19	0.56
5:S:2910:PHE:C	5:S:2911:LEU:HG	2.19	0.56
4:H:3421:VAL:CG2	5:T:3884:THR:HG21	2.35	0.56
6:K:2253:LYS:HG3	6:K:2254:ASP:N	2.21	0.56
2:N:1609:GLU:C	2:O:2642:HIS:CE1	2.79	0.56
1:B:1393:SER:O	4:F:1394:HIS:CD2	2.58	0.56
4:G:2428:LEU:CD1	5:S:2895:ARG:NE	2.69	0.56
6:J:1253:LYS:HG3	6:J:1254:ASP:N	2.21	0.56
2:N:1509:TYR:HB3	2:N:1556:ILE:CD1	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1869:VAL:O	5:R:1873:VAL:HG23	2.04	0.56
6:L:3253:LYS:HG3	6:L:3254:ASP:N	2.21	0.56
2:O:2514:PRO:HD3	2:O:2568:ARG:NH2	2.20	0.56
2:O:2649:LYS:O	2:O:2767:ARG:HA	2.06	0.56
1:D:3257:PHE:N	3:P:3801:GLY:O	2.28	0.56
3:P:3638:ARG:NH2	3:P:3829:THR:O	2.39	0.56
5:Q:910:PHE:CA	5:Q:913:SER:CB	2.80	0.56
5:R:1907:THR:H	5:R:1921:THR:HG22	1.64	0.56
5:S:2852:PRO:CA	5:S:2855:ILE:HD12	2.22	0.56
5:S:2900:TYR:O	5:S:2902:LEU:CD1	2.54	0.56
1:A:272:ALA:O	1:A:273:VAL:HB	2.06	0.56
1:B:1035:SER:O	1:B:1036:VAL:HG23	2.05	0.56
1:C:2277:PRO:O	1:C:2278:ILE:HG13	2.05	0.56
4:E:432:LEU:CD1	5:Q:894:ARG:NH1	2.69	0.56
5:Q:906:ALA:CA	5:Q:907:THR:O	2.53	0.56
5:R:1910:PHE:HA	5:R:1913:SER:HB3	1.85	0.56
2:M:635:VAL:O	2:M:635:VAL:CG1	2.54	0.56
5:R:1906:ALA:CB	5:R:1909:PRO:CG	2.84	0.56
5:S:2910:PHE:HB3	5:S:2911:LEU:N	2.21	0.56
1:A:362:SER:CB	4:E:402:ILE:HG23	2.02	0.56
6:J:1188:LYS:HE3	6:J:1250:THR:HG21	1.87	0.56
2:O:2527:SER:OG	3:P:3646:GLN:HG3	1.71	0.56
1:A:32:GLU:C	1:A:133:LEU:HD12	2.25	0.56
6:I:253:LYS:HG3	6:I:254:ASP:N	2.21	0.56
1:B:1035:SER:C	1:B:1036:VAL:CG2	2.74	0.55
6:J:1208:THR:HG22	6:J:1245:ALA:HA	1.87	0.55
3:P:3672:PRO:CB	3:P:3736:GLN:OE1	2.53	0.55
1:D:3386:HIS:CA	3:P:3842:MET:CA	2.59	0.55
5:Q:906:ALA:CB	5:Q:909:PRO:CG	2.84	0.55
5:S:2878:LEU:O	5:S:2882:VAL:HG23	2.07	0.55
5:S:2914:LEU:C	5:S:2916:CYS:O	2.44	0.55
1:C:2028:VAL:CB	1:C:2329:ALA:HB1	2.30	0.55
2:N:1638:ARG:HB3	2:N:1794:LEU:CG	2.36	0.55
5:Q:902:LEU:CD2	6:I:139:LYS:HE3	2.35	0.55
5:S:2917:CYS:O	5:S:2918:VAL:CG1	2.54	0.55
1:B:1168:SER:O	1:B:1169:ALA:N	2.38	0.55
6:L:3188:LYS:HE3	6:L:3250:THR:HG21	1.87	0.55
2:N:1513:ARG:CB	2:N:1514:PRO:HD2	2.36	0.55
5:Q:906:ALA:CB	5:Q:910:PHE:CE2	2.90	0.55
4:F:1428:LEU:HD21	5:R:1895:ARG:CZ	2.36	0.55
1:A:297:THR:HG22	1:A:298:ASP:N	2.16	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3387:ILE:CA	3:P:3841:GLN:CA	2.75	0.55
1:A:88:MET:SD	2:M:743:PRO:HD2	2.45	0.55
2:O:2640:LYS:HB2	2:O:2791:HIS:CB	2.36	0.55
5:T:3906:ALA:CB	5:T:3910:PHE:CE2	2.90	0.55
5:T:3906:ALA:CB	5:T:3909:PRO:CG	2.84	0.55
1:A:129:ALA:HB3	1:A:148:ALA:O	2.05	0.55
1:A:295:SER:O	1:A:296:LEU:CG	2.54	0.55
1:B:1198:GLY:HA3	2:O:2786:LEU:CD2	2.36	0.55
4:E:396:THR:O	4:E:397:LEU:CD2	2.55	0.55
4:F:1406:ALA:HB3	5:R:1849:HIS:CE1	2.41	0.55
1:C:2362:SER:OG	4:G:2402:ILE:HD13	2.07	0.55
2:O:2541:ALA:HA	2:O:2761:LEU:HD11	1.87	0.55
5:Q:878:LEU:O	5:Q:882:VAL:HG23	2.07	0.55
5:R:1852:PRO:O	5:R:1853:HIS:C	2.45	0.55
5:S:2854:GLU:CA	5:S:2857:LEU:HD12	2.34	0.55
2:M:676:PRO:CA	2:M:728:ALA:HB1	2.36	0.55
1:C:2242:TYR:CD1	3:P:3814:LYS:HD3	2.40	0.55
6:I:208:THR:HG22	6:I:245:ALA:HA	1.87	0.55
2:N:1609:GLU:HB3	2:O:2642:HIS:HE1	1.66	0.55
2:N:1543:ASP:HB3	2:N:1655:THR:CB	2.36	0.55
2:O:2610:THR:HG22	3:P:3643:SER:HB3	1.83	0.55
1:B:1237:PRO:HG2	2:O:2788:TYR:CZ	2.41	0.55
1:C:2388:VAL:H	2:O:2840:PRO:C	2.10	0.55
3:P:3669:VAL:HG12	3:P:3737:TYR:HA	1.89	0.55
4:F:1406:ALA:HA	5:R:1851:HIS:ND1	2.21	0.55
5:S:2900:TYR:CZ	6:K:2161:LYS:CG	2.79	0.55
5:T:3878:LEU:O	5:T:3882:VAL:HG23	2.07	0.55
4:H:3396:THR:O	4:H:3397:LEU:CD2	2.55	0.55
2:M:513:ARG:HH21	2:M:673:PRO:HD2	1.72	0.55
2:O:2639:GLU:HB3	2:O:2791:HIS:CE1	2.40	0.55
3:P:3538:ARG:HB2	3:P:3547:LYS:HB3	1.89	0.55
2:N:1814:LYS:CD	1:D:3242:TYR:CD1	2.70	0.55
4:F:1399:VAL:HG21	5:R:1866:MET:CE	2.37	0.55
2:O:2514:PRO:HB3	2:O:2553:GLN:OE1	2.07	0.55
5:R:1906:ALA:CB	5:R:1910:PHE:CE2	2.90	0.55
5:S:2856:ILE:CG1	5:S:2859:TYR:HE2	2.20	0.55
5:R:1900:TYR:CE2	6:J:1162:ARG:O	2.30	0.54
2:M:573:HIS:CE1	2:M:729:VAL:CA	2.90	0.54
5:S:2897:ILE:CG2	5:S:2898:THR:H	2.08	0.54
1:C:2018:LEU:CD2	1:C:2368:GLN:OE1	2.56	0.54
2:N:1513:ARG:HB2	2:N:1514:PRO:HD2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1514:PRO:CG	2:N:1568:ARG:HG2	2.30	0.54
2:O:2527:SER:HG	3:P:3646:GLN:CD	2.08	0.54
5:S:2852:PRO:O	5:S:2853:HIS:C	2.45	0.54
5:T:3849:HIS:HD1	5:T:3855:ILE:HG13	1.72	0.54
3:P:3514:PRO:HD3	3:P:3568:ARG:CZ	2.38	0.54
1:D:3088:MET:SD	3:P:3675:THR:HA	2.48	0.54
3:P:3675:THR:O	3:P:3728:ALA:HB1	2.07	0.54
1:D:3055:ILE:CG1	3:P:3740:PRO:CG	2.68	0.54
5:Q:852:PRO:O	5:Q:853:HIS:C	2.45	0.54
4:F:1403:SER:CB	5:R:1848:ALA:HB1	2.29	0.54
5:S:2900:TYR:HD2	5:S:2900:TYR:C	2.10	0.54
1:D:3360:LEU:CD2	4:H:3402:ILE:CG1	2.84	0.54
2:M:573:HIS:CE1	2:M:729:VAL:O	2.60	0.54
5:Q:849:HIS:CA	5:Q:854:GLU:HB2	2.35	0.54
5:R:1849:HIS:C	5:R:1854:GLU:HG3	2.26	0.54
5:S:2847:THR:HB	5:S:2854:GLU:OE2	2.03	0.54
5:S:2900:TYR:OH	6:K:2163:SER:HA	2.06	0.54
1:B:1034:LEU:HD13	1:B:1132:LYS:HE2	1.88	0.54
1:D:3386:HIS:O	3:P:3842:MET:HA	2.08	0.54
6:J:1131:GLY:CA	6:J:1219:SER:O	2.56	0.54
2:M:538:ARG:HB2	2:M:547:LYS:HB3	1.89	0.54
1:D:3386:HIS:C	3:P:3842:MET:N	2.61	0.54
1:A:362:SER:OG	4:E:402:ILE:CG2	2.49	0.54
1:D:3393:SER:CB	4:H:3394:HIS:HD2	2.19	0.54
2:M:636:ILE:O	2:M:768:VAL:HG11	2.07	0.54
2:N:1640:LYS:HB2	2:N:1792:PRO:CB	2.38	0.54
2:N:1646:GLN:NE2	3:P:3518:HIS:CE1	2.56	0.54
5:S:2916:CYS:N	5:S:2917:CYS:CA	2.69	0.54
5:T:3852:PRO:O	5:T:3853:HIS:C	2.45	0.54
1:A:125:HIS:NE2	1:B:1126:THR:HG21	2.17	0.54
1:C:2018:LEU:HD21	1:C:2368:GLN:CD	2.28	0.54
6:J:1166:TYR:HB3	6:J:1256:VAL:CG1	2.37	0.54
2:N:1672:PRO:HG2	2:N:1731:ASN:CB	2.38	0.54
2:N:1673:PRO:CD	2:N:1742:VAL:HG12	2.38	0.54
5:S:2853:HIS:C	5:S:2855:ILE:N	2.61	0.54
1:C:2388:VAL:N	2:O:2841:GLN:N	2.55	0.54
4:H:3406:ALA:CA	4:H:3409:TRP:HD1	2.21	0.54
2:O:2538:ARG:HB2	2:O:2547:LYS:HB3	1.89	0.54
1:B:1290:VAL:C	1:B:1292:ASP:H	2.12	0.54
4:E:402:ILE:O	4:E:407:MET:HG3	2.08	0.54
1:C:2387:ILE:HG13	2:O:2781:ASN:H	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:2637:GLY:C	2:O:2832:ASN:HD21	2.01	0.54
5:R:1902:LEU:HD12	6:J:1171:ALA:H	1.71	0.54
5:R:1906:ALA:HB2	5:R:1909:PRO:CG	2.30	0.54
1:C:2035:SER:C	1:C:2036:VAL:CG2	2.77	0.54
4:E:394:HIS:O	4:E:395:THR:C	2.47	0.54
6:L:3157:LYS:CE	6:L:3157:LYS:HA	2.30	0.54
3:P:3510:LYS:C	3:P:3560:ASP:CG	2.67	0.54
4:H:3402:ILE:O	4:H:3407:MET:HG3	2.08	0.53
5:T:3900:TYR:HD1	6:L:3161:LYS:CD	2.08	0.53
2:M:672:PRO:CG	2:M:736:GLN:HB2	2.33	0.53
2:O:2640:LYS:HB2	2:O:2791:HIS:HB2	1.91	0.53
3:P:3640:LYS:HB2	3:P:3792:PRO:CD	2.38	0.53
5:R:1878:LEU:O	5:R:1882:VAL:HG23	2.07	0.53
2:N:1515:TYR:HB3	2:N:1736:GLN:CD	2.29	0.53
5:R:1907:THR:HG22	5:R:1921:THR:HG1	1.72	0.53
4:E:406:ALA:CA	4:E:409:TRP:HD1	2.21	0.53
6:I:254:ASP:OD1	6:I:255:ILE:HG13	2.09	0.53
3:P:3513:ARG:O	3:P:3553:GLN:OE1	2.26	0.53
5:S:2900:TYR:C	5:S:2902:LEU:CD2	2.76	0.53
5:S:2914:LEU:C	5:S:2917:CYS:SG	2.85	0.53
1:D:3089:TRP:CE3	3:P:3573:HIS:HA	2.44	0.53
6:L:3227:LYS:CB	6:L:3227:LYS:NZ	2.71	0.53
2:N:1672:PRO:CG	2:N:1731:ASN:CB	2.87	0.53
1:B:1236:ALA:HB1	2:O:2775:THR:OG1	2.08	0.53
4:E:432:LEU:CD2	5:Q:894:ARG:CG	2.79	0.53
1:D:3130:SER:HA	1:D:3148:ALA:H	1.74	0.53
2:M:639:GLU:OE1	2:M:770:LYS:CA	2.57	0.53
2:N:1673:PRO:CB	2:N:1744:ARG:O	2.56	0.53
3:P:3507:ASN:OD1	3:P:3561:SER:N	2.41	0.53
5:S:2900:TYR:CE2	6:K:2161:LYS:HG2	2.39	0.53
1:A:168:SER:C	1:A:169:ALA:CB	2.74	0.53
1:B:1386:HIS:ND1	2:N:1841:GLN:O	2.41	0.53
5:T:3902:LEU:CD1	6:L:3138:ASP:OD2	2.50	0.53
2:M:731:ASN:C	2:M:733:LYS:N	2.61	0.53
5:R:1902:LEU:C	5:R:1903:THR:CG2	2.64	0.53
5:S:2898:THR:C	5:S:2900:TYR:N	2.61	0.53
6:L:3254:ASP:OD1	6:L:3255:ILE:HG13	2.09	0.53
2:M:731:ASN:C	2:M:733:LYS:H	2.12	0.53
2:O:2674:ASP:O	2:O:2676:PRO:HD3	2.08	0.53
1:C:2092:ALA:O	2:O:2678:ARG:NH2	2.42	0.53
3:P:3640:LYS:O	3:P:3792:PRO:HD2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:3543:ASP:CG	3:P:3655:THR:HB	2.29	0.53
4:G:2428:LEU:CG	5:S:2895:ARG:HE	2.20	0.53
1:A:291:VAL:CG2	1:C:2315:VAL:HG23	2.19	0.53
1:D:3273:VAL:HG13	1:D:3273:VAL:O	2.09	0.53
2:N:1638:ARG:NE	2:N:1794:LEU:CG	2.65	0.53
5:Q:897:ILE:C	5:Q:899:PRO:HD2	2.30	0.53
1:A:385:ASP:HB2	2:M:841:GLN:HB3	1.88	0.53
2:N:1538:ARG:HB2	2:N:1547:LYS:HB3	1.89	0.53
1:D:3093:TYR:CE1	3:P:3674:ASP:O	2.62	0.53
4:F:1409:TRP:CE2	5:R:1851:HIS:NE2	2.76	0.53
5:R:1897:ILE:C	5:R:1899:PRO:HD2	2.30	0.53
5:S:2847:THR:HG1	5:S:2857:LEU:HD13	1.74	0.53
5:S:2900:TYR:O	5:S:2902:LEU:HD11	2.09	0.53
1:D:3055:ILE:HG12	3:P:3740:PRO:HB3	1.87	0.52
1:D:3056:PRO:O	3:P:3740:PRO:CB	2.57	0.52
4:G:2396:THR:O	4:G:2397:LEU:HG	2.08	0.52
4:G:2406:ALA:CA	4:G:2409:TRP:HD1	2.21	0.52
1:A:95:PHE:HE1	2:M:701:CYS:O	1.92	0.52
1:A:387:ILE:HD12	2:M:840:PRO:CG	2.38	0.52
2:M:821:VAL:CG1	2:M:840:PRO:HD3	2.38	0.52
2:N:1640:LYS:HB2	2:N:1792:PRO:CG	2.39	0.52
5:Q:900:TYR:HH	6:I:163:SER:CB	2.15	0.52
5:T:3900:TYR:CD2	5:T:3901:GLU:N	2.78	0.52
1:D:3388:VAL:CB	3:P:3841:GLN:HA	2.38	0.52
3:P:3515:TYR:CD1	3:P:3515:TYR:N	2.77	0.52
5:Q:900:TYR:CD2	5:Q:901:GLU:N	2.78	0.52
5:Q:903:THR:HB	5:Q:904:PRO:HD2	1.91	0.52
5:R:1848:ALA:C	5:R:1854:GLU:HB3	2.27	0.52
1:B:1131:ALA:O	1:B:1145:THR:CG2	2.51	0.52
4:E:432:LEU:HD12	5:Q:894:ARG:NH1	2.24	0.52
2:N:1514:PRO:HB3	2:N:1553:GLN:N	2.25	0.52
1:D:3090:GLY:HA3	3:P:3677:ASP:CB	2.39	0.52
5:R:1900:TYR:CD2	5:R:1901:GLU:N	2.78	0.52
5:R:1911:LEU:N	5:R:1912:LEU:C	2.63	0.52
5:S:2853:HIS:C	5:S:2855:ILE:H	2.13	0.52
1:D:3387:ILE:HG23	3:P:3840:PRO:CB	2.36	0.52
2:M:573:HIS:NE2	2:M:729:VAL:N	2.57	0.52
5:R:1898:THR:CB	5:R:1899:PRO:CD	2.88	0.52
5:S:2915:LEU:O	5:S:2916:CYS:O	2.26	0.52
5:T:3898:THR:CB	5:T:3899:PRO:CD	2.88	0.52
5:T:3903:THR:HB	5:T:3904:PRO:HD2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:T:3911:LEU:N	5:T:3912:LEU:C	2.63	0.52
1:C:2009:ASN:HB2	1:C:2274:GLY:O	2.08	0.52
2:N:1509:TYR:HA	2:N:1512:THR:HG1	1.74	0.52
1:D:3088:MET:HB3	3:P:3675:THR:HG23	1.91	0.52
5:R:1847:THR:HG1	5:R:1854:GLU:HG2	1.73	0.52
5:T:3897:ILE:C	5:T:3899:PRO:HD2	2.30	0.52
5:T:3906:ALA:HB2	5:T:3909:PRO:HD2	0.61	0.52
1:A:13:VAL:HG11	4:E:394:HIS:ND1	2.24	0.52
1:A:35:SER:HB2	1:A:270:ASN:OD1	2.09	0.52
4:F:1406:ALA:CA	4:F:1409:TRP:HD1	2.21	0.52
6:J:1254:ASP:OD1	6:J:1255:ILE:HG13	2.08	0.52
5:S:2901:GLU:CD	5:S:2902:LEU:HD12	2.30	0.52
6:K:2254:ASP:OD1	6:K:2255:ILE:HG13	2.09	0.52
1:B:1089:TRP:HB3	2:N:1676:PRO:HG2	1.90	0.52
1:C:2387:ILE:HD12	2:O:2781:ASN:OD1	2.07	0.52
5:Q:898:THR:CB	5:Q:899:PRO:CD	2.88	0.52
1:D:3393:SER:OG	4:H:3394:HIS:CD2	2.61	0.52
4:F:1402:ILE:C	4:F:1403:SER:CA	2.78	0.52
2:O:2638:ARG:HD3	2:O:2832:ASN:HA	1.92	0.52
1:D:3389:ASN:O	3:P:3839:TRP:HE3	1.93	0.52
5:R:1903:THR:HB	5:R:1904:PRO:HD2	1.92	0.52
5:S:2917:CYS:C	5:S:2918:VAL:HB	2.29	0.52
2:N:1513:ARG:HE	2:N:1736:GLN:HE21	1.56	0.52
3:P:3638:ARG:HB3	3:P:3831:GLY:HA2	1.91	0.52
1:A:266:VAL:HG23	1:A:266:VAL:O	2.09	0.52
1:C:2116:THR:CG2	2:O:2763:ASN:HD22	2.17	0.52
2:N:1535:GLU:CD	2:N:1741:LEU:CG	2.78	0.52
2:O:2639:GLU:CA	2:O:2791:HIS:CE1	2.92	0.52
2:O:2669:VAL:HA	2:O:2737:TYR:HA	1.91	0.52
5:Q:897:ILE:O	5:Q:899:PRO:N	2.43	0.52
5:Q:911:LEU:N	5:Q:912:LEU:C	2.63	0.52
6:I:157:LYS:CE	6:I:157:LYS:HA	2.30	0.51
6:L:3252:ASN:HB2	6:L:3255:ILE:O	2.10	0.51
2:M:602:LEU:HD12	2:M:658:GLN:HG2	1.92	0.51
2:N:1672:PRO:CD	2:N:1731:ASN:HB2	2.40	0.51
3:P:3639:GLU:CB	3:P:3791:HIS:NE2	2.73	0.51
5:R:1856:ILE:HG23	5:R:1859:TYR:CE2	2.46	0.51
1:C:2034:LEU:HD12	1:C:2132:LYS:HG2	1.92	0.51
6:K:2252:ASN:HB2	6:K:2255:ILE:O	2.10	0.51
5:Q:856:ILE:HG23	5:Q:859:TYR:CE2	2.45	0.51
5:T:3862:LEU:N	5:T:3863:TYR:HE2	2.07	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:293:ALA:O	1:A:324:LYS:HE2	2.10	0.51
6:I:252:ASN:HB2	6:I:255:ILE:O	2.10	0.51
2:M:698:ARG:HB2	2:M:730:THR:CG2	2.40	0.51
2:N:1509:TYR:HB3	2:N:1556:ILE:HD11	1.91	0.51
5:Q:897:ILE:CG2	6:I:165:LYS:NZ	2.73	0.51
5:Q:918:VAL:HA	5:Q:920:THR:N	2.26	0.51
1:D:3266:VAL:HG23	1:D:3266:VAL:O	2.08	0.51
6:K:2136:VAL:HG12	6:K:2141:MET:HG3	1.93	0.51
2:M:698:ARG:HB2	2:M:730:THR:HG21	1.90	0.51
5:Q:894:ARG:HA	5:Q:897:ILE:CG1	2.41	0.51
5:R:1850:GLY:HA2	5:R:1851:HIS:C	2.31	0.51
5:R:1897:ILE:O	5:R:1899:PRO:N	2.43	0.51
5:S:2900:TYR:HD2	5:S:2901:GLU:N	2.09	0.51
5:T:3897:ILE:O	5:T:3899:PRO:N	2.43	0.51
5:T:3907:THR:CG2	5:T:3921:THR:OG1	2.48	0.51
1:B:1290:VAL:C	1:B:1292:ASP:N	2.63	0.51
1:B:1013:VAL:CG2	1:B:1391:PRO:HB2	2.40	0.51
1:C:2242:TYR:CB	3:P:3814:LYS:NZ	2.72	0.51
2:N:1535:GLU:CD	2:N:1739:SER:HG	2.14	0.51
2:N:1638:ARG:CZ	2:N:1794:LEU:HG	2.40	0.51
5:Q:915:LEU:O	5:Q:916:CYS:CB	2.51	0.51
1:D:3288:THR:O	1:D:3289:ARG:C	2.48	0.51
4:E:427:ILE:CG2	5:Q:895:ARG:HH21	2.21	0.51
6:I:257:THR:HG22	6:I:258:LYS:H	1.75	0.51
2:N:1549:GLN:NE2	2:N:1737:TYR:HE2	1.85	0.51
5:T:3856:ILE:HG23	5:T:3859:TYR:CE2	2.46	0.51
4:G:2396:THR:C	4:G:2397:LEU:HG	2.30	0.51
6:J:1254:ASP:CG	6:J:1255:ILE:HG13	2.31	0.51
5:S:2900:TYR:OH	6:K:2163:SER:HB2	2.11	0.51
2:M:638:ARG:NH2	2:M:829:THR:CG2	2.74	0.51
2:M:638:ARG:HH21	2:M:829:THR:HB	1.74	0.51
2:N:1733:LYS:O	2:N:1734:LYS:C	2.48	0.51
1:D:3254:THR:O	3:P:3804:PRO:HG3	2.11	0.51
5:S:2909:PRO:C	5:S:2911:LEU:N	2.64	0.51
5:T:3854:GLU:HA	5:T:3857:LEU:CD1	2.41	0.51
6:K:2254:ASP:CG	6:K:2255:ILE:HG13	2.31	0.51
3:P:3510:LYS:CG	3:P:3560:ASP:O	2.58	0.51
1:C:2092:ALA:CA	2:O:2678:ARG:HH21	2.24	0.51
3:P:3545:THR:HG1	3:P:3655:THR:HG1	1.56	0.51
1:D:3091:GLY:CA	3:P:3676:PRO:CB	2.87	0.51
3:P:3640:LYS:HD2	3:P:3792:PRO:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:906:ALA:HB2	5:Q:909:PRO:CG	2.30	0.51
5:R:1843:SER:O	5:R:1844:THR:C	2.49	0.51
5:R:1862:LEU:N	5:R:1863:TYR:HE2	2.07	0.51
6:I:254:ASP:CG	6:I:255:ILE:HG13	2.31	0.51
6:L:3254:ASP:CG	6:L:3255:ILE:HG13	2.31	0.51
2:N:1509:TYR:CD1	2:N:1556:ILE:CD1	2.82	0.51
2:N:1521:ASP:HB3	2:N:1626:THR:HB	1.93	0.51
2:O:2520:PRO:HA	3:P:3646:GLN:HB2	1.93	0.51
2:M:639:GLU:CD	2:M:770:LYS:HA	2.31	0.50
2:N:1643:SER:CB	3:P:3628:PRO:CD	2.66	0.50
1:D:3089:TRP:HB3	3:P:3675:THR:HG21	1.92	0.50
5:R:1901:GLU:CD	6:J:1169:GLU:N	2.64	0.50
5:S:2903:THR:HB	5:S:2904:PRO:HD3	1.74	0.50
5:S:2909:PRO:CD	5:S:2910:PHE:HB2	2.29	0.50
4:H:3421:VAL:CG1	5:T:3884:THR:HA	2.39	0.50
5:T:3894:ARG:HA	5:T:3897:ILE:CG1	2.41	0.50
1:B:1090:GLY:CA	2:N:1676:PRO:HB3	2.41	0.50
1:D:3388:VAL:HB	3:P:3841:GLN:HA	1.91	0.50
6:I:262:GLU:OE1	6:K:2175:VAL:HG13	2.10	0.50
5:Q:908:VAL:C	5:Q:910:PHE:H	2.15	0.50
1:A:41:THR:HG21	1:B:1125:HIS:HB2	1.94	0.50
6:I:136:VAL:HG12	6:I:141:MET:HG3	1.93	0.50
5:Q:901:GLU:OE2	6:I:170:CYS:SG	2.69	0.50
6:J:1252:ASN:HB2	6:J:1255:ILE:O	2.10	0.50
6:J:1257:THR:HG22	6:J:1258:LYS:H	1.75	0.50
2:N:1672:PRO:CG	2:N:1731:ASN:HB2	2.41	0.50
2:O:2639:GLU:OE2	2:O:2769:PRO:C	2.48	0.50
1:C:2387:ILE:CG2	2:O:2840:PRO:CB	2.73	0.50
5:R:1848:ALA:O	5:R:1854:GLU:HB3	2.09	0.50
5:R:1906:ALA:CA	5:R:1907:THR:O	2.53	0.50
5:R:1907:THR:CA	5:R:1910:PHE:CD2	2.92	0.50
6:I:188:LYS:CE	6:I:250:THR:HG21	2.42	0.50
6:J:1132:TYR:H	6:J:1220:GLY:HA3	1.76	0.50
6:J:1136:VAL:HG12	6:J:1141:MET:HG3	1.93	0.50
6:L:3227:LYS:HZ3	6:L:3227:LYS:HB2	1.75	0.50
3:P:3513:ARG:C	3:P:3553:GLN:OE1	2.49	0.50
6:K:2188:LYS:CE	6:K:2250:THR:HG21	2.42	0.50
3:P:3509:TYR:HB2	3:P:3556:ILE:HG23	1.93	0.50
5:Q:907:THR:CA	5:Q:910:PHE:CD2	2.92	0.50
5:R:1918:VAL:HA	5:R:1920:THR:N	2.26	0.50
5:T:3918:VAL:HA	5:T:3920:THR:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:1136:VAL:HG21	6:J:1184:PHE:HB3	1.94	0.50
6:L:3136:VAL:HG12	6:L:3141:MET:HG3	1.93	0.50
6:L:3257:THR:HG22	6:L:3258:LYS:H	1.75	0.50
2:O:2672:PRO:HD2	2:O:2734:LYS:O	2.12	0.50
5:Q:862:LEU:N	5:Q:863:TYR:HE2	2.07	0.50
1:B:1297:THR:O	1:B:1298:ASP:O	2.30	0.50
1:D:3297:THR:O	1:D:3298:ASP:O	2.30	0.50
6:K:2250:THR:HG22	6:K:2251:TRP:N	2.26	0.50
2:M:639:GLU:CD	2:M:832:ASN:CB	2.66	0.50
5:S:2917:CYS:HB2	5:S:2918:VAL:CB	2.25	0.50
1:A:192:PHE:O	1:B:1152:HIS:HA	2.11	0.50
1:A:40:PRO:HD2	1:A:266:VAL:O	2.12	0.50
1:C:2040:PRO:CA	1:C:2127:ALA:HA	2.37	0.50
4:E:394:HIS:O	4:E:395:THR:O	2.30	0.50
6:J:1250:THR:HG22	6:J:1251:TRP:N	2.27	0.50
2:N:1510:LYS:O	2:N:1560:ASP:HB3	2.12	0.50
2:N:1602:LEU:HD21	2:N:1759:PHE:CD2	2.47	0.50
2:N:1640:LYS:H	2:N:1792:PRO:HB2	1.77	0.50
5:Q:896:CYS:O	5:Q:897:ILE:O	2.30	0.50
5:S:2911:LEU:CD2	5:S:2912:LEU:O	2.48	0.50
5:T:3846:GLY:O	5:T:3847:THR:O	2.30	0.50
5:T:3913:SER:OG	5:T:3917:CYS:HB3	2.12	0.50
1:C:2059:TYR:HB2	2:O:2744:ARG:HH22	1.72	0.50
1:C:2387:ILE:HG23	2:O:2840:PRO:HB3	1.84	0.50
5:Q:897:ILE:CG2	6:I:165:LYS:HZ1	2.25	0.50
6:J:1188:LYS:CE	6:J:1250:THR:HG21	2.42	0.50
6:L:3188:LYS:CE	6:L:3250:THR:HG21	2.42	0.50
2:M:639:GLU:OE2	2:M:770:LYS:HA	2.12	0.50
2:M:674:ASP:O	2:M:675:THR:O	2.30	0.50
2:O:2639:GLU:OE2	2:O:2771:ALA:N	2.43	0.50
3:P:3510:LYS:CA	3:P:3560:ASP:CG	2.76	0.50
1:D:3058:PRO:HD2	3:P:3742:VAL:O	2.12	0.50
5:Q:910:PHE:HA	5:Q:913:SER:HB2	1.94	0.50
5:Q:917:CYS:O	5:Q:920:THR:OG1	2.30	0.50
5:R:1846:GLY:O	5:R:1847:THR:O	2.30	0.50
5:R:1896:CYS:O	5:R:1897:ILE:O	2.30	0.50
5:S:2911:LEU:HD23	5:S:2912:LEU:CA	2.42	0.50
5:T:3896:CYS:O	5:T:3897:ILE:O	2.30	0.50
5:T:3908:VAL:C	5:T:3910:PHE:H	2.15	0.50
1:A:297:THR:O	1:A:298:ASP:O	2.30	0.49
1:C:2009:ASN:CB	1:C:2274:GLY:O	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:K:2257:THR:HG22	6:K:2258:LYS:H	1.76	0.49
2:M:641:PHE:CZ	2:M:768:VAL:HG12	2.47	0.49
2:N:1649:LYS:HB2	2:N:1832:ASN:HB3	1.93	0.49
2:O:2535:GLU:CD	2:O:2741:LEU:HD12	2.29	0.49
5:R:1906:ALA:HB2	5:R:1909:PRO:HD2	0.61	0.49
5:R:1913:SER:OG	5:R:1917:CYS:HB3	2.12	0.49
5:S:2848:ALA:O	5:S:2854:GLU:HB3	2.11	0.49
5:S:2894:ARG:HA	5:S:2897:ILE:HG13	1.93	0.49
5:S:2917:CYS:C	5:S:2918:VAL:CB	2.78	0.49
1:A:89:TRP:CE2	2:M:676:PRO:HD2	2.45	0.49
6:J:1166:TYR:CD1	6:J:1256:VAL:CG1	2.89	0.49
2:M:542:THR:HB	2:M:636:ILE:HD11	1.94	0.49
2:M:727:ALA:O	2:M:728:ALA:HB2	2.12	0.49
2:N:1535:GLU:CD	2:N:1739:SER:OG	2.50	0.49
2:O:2673:PRO:CA	2:O:2732:HIS:CE1	2.94	0.49
1:D:3088:MET:SD	3:P:3674:ASP:O	2.70	0.49
5:Q:848:ALA:N	5:Q:854:GLU:CD	2.63	0.49
5:Q:917:CYS:O	5:Q:920:THR:HG23	2.11	0.49
5:R:1894:ARG:HA	5:R:1897:ILE:CG1	2.41	0.49
5:R:1908:VAL:C	5:R:1910:PHE:H	2.15	0.49
1:A:129:ALA:O	1:A:130:SER:CB	2.53	0.49
6:I:250:THR:HG22	6:I:251:TRP:N	2.26	0.49
2:O:2638:ARG:CA	2:O:2832:ASN:ND2	2.75	0.49
5:Q:846:GLY:O	5:Q:847:THR:O	2.30	0.49
5:R:1909:PRO:O	5:R:1912:LEU:O	2.30	0.49
1:B:1294:PRO:HB3	1:B:1324:LYS:CG	2.43	0.49
1:D:3288:THR:O	1:D:3289:ARG:O	2.30	0.49
1:D:3299:MET:HG2	1:D:3320:TYR:HA	1.93	0.49
6:I:262:GLU:OE1	6:K:2175:VAL:HG12	2.12	0.49
5:Q:856:ILE:CB	5:Q:859:TYR:HE2	2.26	0.49
5:R:1856:ILE:CB	5:R:1859:TYR:HE2	2.26	0.49
1:D:3040:PRO:HD2	1:D:3266:VAL:O	2.12	0.49
4:F:1394:HIS:O	4:F:1395:THR:O	2.31	0.49
2:N:1673:PRO:HD2	2:N:1742:VAL:HG12	1.95	0.49
2:N:1768:VAL:O	2:N:1769:PRO:O	2.30	0.49
2:O:2672:PRO:O	2:O:2673:PRO:O	2.30	0.49
5:Q:909:PRO:O	5:Q:912:LEU:O	2.31	0.49
2:M:540:GLU:HB2	2:M:656:TYR:OH	2.13	0.49
3:P:3507:ASN:OD1	3:P:3561:SER:C	2.49	0.49
1:D:3089:TRP:CD2	3:P:3573:HIS:CA	2.93	0.49
3:P:3673:PRO:HG3	3:P:3742:VAL:CG1	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:907:THR:H	5:Q:921:THR:HB	1.77	0.49
5:T:3906:ALA:CA	5:T:3910:PHE:HD2	2.26	0.49
6:L:3250:THR:HG22	6:L:3251:TRP:N	2.26	0.49
2:N:1733:LYS:O	2:N:1734:LYS:O	2.30	0.49
5:R:1898:THR:C	5:R:1900:TYR:H	2.16	0.49
5:R:1910:PHE:CG	5:R:1921:THR:HG21	2.48	0.49
5:S:2902:LEU:O	5:S:2903:THR:OG1	2.30	0.49
5:T:3909:PRO:O	5:T:3912:LEU:O	2.31	0.49
5:T:3917:CYS:O	5:T:3920:THR:OG1	2.30	0.49
1:B:1382:PRO:HB3	5:R:1843:SER:CA	2.43	0.49
4:F:1405:THR:O	4:F:1406:ALA:C	2.51	0.49
4:H:3421:VAL:HB	5:T:3884:THR:CG2	2.43	0.49
6:J:1227:LYS:NZ	6:J:1227:LYS:CB	2.71	0.49
6:K:2143:PRO:HB2	6:K:2146:VAL:HG23	1.95	0.49
2:N:1547:LYS:HZ2	2:N:1757:ILE:HD12	1.60	0.49
3:P:3602:LEU:HD11	3:P:3759:PHE:CB	2.36	0.49
3:P:3639:GLU:HG2	3:P:3791:HIS:NE2	2.28	0.49
3:P:3837:LYS:HB3	3:P:3839:TRP:CZ3	2.47	0.49
4:E:417:VAL:O	5:Q:884:THR:HG21	2.12	0.49
5:Q:913:SER:OG	5:Q:917:CYS:HB3	2.12	0.49
5:S:2894:ARG:HA	5:S:2897:ILE:CG1	2.43	0.49
5:S:2910:PHE:N	5:S:2917:CYS:HB3	2.27	0.49
1:D:3089:TRP:CE3	3:P:3573:HIS:CA	2.91	0.49
6:K:2227:LYS:NZ	6:K:2227:LYS:CB	2.71	0.49
3:P:3640:LYS:HB2	3:P:3792:PRO:CG	2.43	0.49
1:C:2237:PRO:CG	3:P:3788:TYR:CE2	2.94	0.49
5:S:2910:PHE:HA	5:S:2918:VAL:CG1	2.42	0.49
5:T:3848:ALA:N	5:T:3854:GLU:CD	2.64	0.49
1:D:3254:THR:HG22	3:P:3806:TYR:HB2	1.95	0.49
6:L:3143:PRO:HB2	6:L:3146:VAL:HG23	1.95	0.49
2:N:1768:VAL:CB	2:N:1832:ASN:ND2	2.71	0.49
1:D:3055:ILE:CG1	3:P:3740:PRO:CB	2.83	0.49
5:Q:843:SER:O	5:Q:844:THR:C	2.44	0.49
5:T:3910:PHE:CG	5:T:3921:THR:HG21	2.48	0.49
1:A:134:ARG:O	1:A:135:VAL:HG23	2.13	0.48
6:L:3227:LYS:HZ1	6:L:3229:ARG:CZ	2.25	0.48
2:M:540:GLU:CB	2:M:761:LEU:HD13	2.42	0.48
3:P:3670:HIS:CE1	3:P:3671:MET:O	2.66	0.48
5:S:2907:THR:O	5:S:2909:PRO:HD3	0.70	0.48
5:T:3907:THR:CA	5:T:3910:PHE:CD2	2.92	0.48
1:C:2035:SER:O	1:C:2036:VAL:HG23	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:G:2394:HIS:O	4:G:2395:THR:OG1	2.30	0.48
6:J:1143:PRO:HB2	6:J:1146:VAL:HG23	1.95	0.48
5:Q:902:LEU:O	5:Q:903:THR:OG1	2.30	0.48
5:R:1849:HIS:O	5:R:1854:GLU:HG3	2.12	0.48
1:C:2386:HIS:CA	5:S:2843:SER:N	2.32	0.48
4:G:2428:LEU:CD1	5:S:2895:ARG:HH21	2.26	0.48
5:S:2910:PHE:HB2	5:S:2911:LEU:N	2.28	0.48
1:A:129:ALA:CB	1:A:166:MET:HG2	2.43	0.48
4:G:2405:THR:O	4:G:2406:ALA:C	2.51	0.48
2:O:2517:ALA:HB1	2:O:2741:LEU:HB2	1.94	0.48
3:P:3510:LYS:C	3:P:3560:ASP:CB	2.75	0.48
5:R:1906:ALA:CA	5:R:1910:PHE:HD2	2.26	0.48
1:C:2386:HIS:HB2	5:S:2843:SER:HB3	1.94	0.48
5:S:2910:PHE:O	5:S:2913:SER:HB2	2.12	0.48
1:B:1040:PRO:CA	1:B:1127:ALA:HA	2.37	0.48
2:M:677:ASP:OD2	2:M:679:THR:OG1	2.31	0.48
2:O:2674:ASP:HA	2:O:2729:VAL:O	2.13	0.48
5:R:1907:THR:H	5:R:1921:THR:HB	1.77	0.48
5:S:2856:ILE:HG12	5:S:2859:TYR:CE2	2.49	0.48
5:S:2908:VAL:O	5:S:2909:PRO:C	2.52	0.48
5:T:3917:CYS:O	5:T:3920:THR:HG23	2.12	0.48
4:E:395:THR:O	4:E:396:THR:O	2.31	0.48
6:K:2145:HIS:NE2	6:K:2267:TRP:O	2.47	0.48
2:O:2821:VAL:HG12	2:O:2840:PRO:CD	2.32	0.48
5:Q:843:SER:O	5:Q:844:THR:O	2.32	0.48
5:Q:906:ALA:CA	5:Q:910:PHE:HD2	2.26	0.48
5:Q:910:PHE:CG	5:Q:921:THR:CG2	2.97	0.48
5:T:3843:SER:O	5:T:3844:THR:O	2.30	0.48
1:D:3256:PRO:HB3	3:P:3804:PRO:HD3	1.95	0.48
4:E:405:THR:O	4:E:406:ALA:C	2.51	0.48
4:G:2401:ASP:O	4:G:2404:THR:HG22	2.07	0.48
2:N:1523:GLY:O	2:N:1524:GLU:HB2	2.14	0.48
2:N:1775:THR:OG1	1:D:3236:ALA:HB2	2.14	0.48
5:S:2901:GLU:N	5:S:2902:LEU:CG	2.61	0.48
1:D:3088:MET:HB2	3:P:3676:PRO:HG2	1.92	0.48
1:D:3105:GLU:CD	3:P:3744:ARG:HH12	2.17	0.48
2:N:1775:THR:OG1	1:D:3236:ALA:CB	2.61	0.48
4:F:1396:THR:O	4:F:1396:THR:OG1	2.30	0.48
4:G:2405:THR:OG1	4:G:2406:ALA:N	2.46	0.48
2:M:672:PRO:CB	2:M:736:GLN:HE21	2.18	0.48
2:M:513:ARG:NH2	2:M:673:PRO:O	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1514:PRO:HG3	2:N:1568:ARG:CG	2.33	0.48
4:F:1421:VAL:HB	5:R:1884:THR:HB	1.80	0.48
5:R:1910:PHE:HA	5:R:1913:SER:HB2	1.94	0.48
5:T:3898:THR:C	5:T:3900:TYR:H	2.16	0.48
5:T:3910:PHE:HA	5:T:3913:SER:HB2	1.94	0.48
1:A:151:ASP:OD2	1:B:1191:PRO:CB	1.64	0.48
1:C:2282:ILE:HG23	1:C:2283:PRO:HD2	1.95	0.48
4:E:432:LEU:C	4:E:436:PHE:CD2	2.86	0.48
2:N:1602:LEU:HD11	2:N:1759:PHE:CE1	2.45	0.48
2:N:1673:PRO:HD2	2:N:1742:VAL:CG1	2.44	0.48
2:N:1639:GLU:CD	2:N:1793:THR:HG23	2.34	0.48
2:O:2768:VAL:HB	2:O:2769:PRO:CD	2.40	0.48
1:D:3055:ILE:O	3:P:3740:PRO:CB	2.60	0.48
5:R:1910:PHE:CG	5:R:1921:THR:CG2	2.97	0.48
5:S:2919:ARG:C	5:S:2920:THR:CA	2.83	0.48
5:T:3907:THR:H	5:T:3921:THR:HB	1.77	0.48
4:H:3405:THR:O	4:H:3406:ALA:C	2.51	0.48
6:K:2227:LYS:HZ3	6:K:2227:LYS:HB2	1.76	0.48
2:N:1732:HIS:O	2:N:1733:LYS:C	2.53	0.48
5:Q:906:ALA:CA	5:Q:910:PHE:CD2	2.97	0.48
5:R:1906:ALA:CA	5:R:1910:PHE:CD2	2.97	0.48
5:S:2909:PRO:C	5:S:2910:PHE:N	2.67	0.48
5:T:3906:ALA:CA	5:T:3910:PHE:CD2	2.97	0.48
1:D:3105:GLU:CD	3:P:3744:ARG:NH1	2.67	0.47
4:E:433:CYS:HA	4:E:436:PHE:HD2	1.79	0.47
4:F:1433:CYS:HA	4:F:1436:PHE:HD2	1.79	0.47
4:F:1432:LEU:C	4:F:1436:PHE:CD2	2.86	0.47
2:M:602:LEU:HD11	2:M:759:PHE:CD1	2.49	0.47
2:N:1509:TYR:CD2	2:N:1597:MET:SD	3.07	0.47
5:Q:898:THR:C	5:Q:900:TYR:H	2.16	0.47
5:Q:910:PHE:CG	5:Q:921:THR:HG21	2.48	0.47
5:R:1854:GLU:HA	5:R:1857:LEU:CD1	2.41	0.47
5:R:1917:CYS:O	5:R:1920:THR:OG1	2.30	0.47
5:S:2852:PRO:HA	5:S:2855:ILE:CG1	2.44	0.47
1:B:1387:ILE:HG13	2:N:1821:VAL:HG11	1.96	0.47
1:D:3131:ALA:CA	1:D:3132:LYS:N	2.73	0.47
1:D:3393:SER:CB	4:H:3394:HIS:CD2	2.95	0.47
6:K:2190:GLU:HG2	6:K:2203:SER:HA	1.97	0.47
2:N:1670:HIS:CG	2:N:1671:MET:N	2.80	0.47
5:Q:907:THR:HA	5:Q:910:PHE:HB2	1.96	0.47
5:T:3897:ILE:CG2	5:T:3898:THR:N	2.64	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1089:TRP:HB2	2:N:1529:HIS:CE1	2.49	0.47
4:H:3426:LEU:O	4:H:3430:VAL:HG23	2.15	0.47
6:I:143:PRO:HB2	6:I:146:VAL:HG23	1.95	0.47
3:P:3509:TYR:CB	3:P:3556:ILE:CG1	2.70	0.47
1:B:1265:PRO:O	1:B:1267:ARG:HD3	2.14	0.47
1:C:2018:LEU:HD22	1:C:2368:GLN:CD	2.35	0.47
4:G:2426:LEU:O	4:G:2430:VAL:HG23	2.14	0.47
4:G:2433:CYS:HA	4:G:2436:PHE:HD2	1.79	0.47
6:I:157:LYS:CA	6:I:157:LYS:HE2	2.33	0.47
2:M:507:ASN:ND2	2:M:562:HIS:NE2	2.61	0.47
5:Q:908:VAL:CG1	5:Q:909:PRO:N	2.68	0.47
4:F:1428:LEU:HD21	5:R:1895:ARG:NE	2.25	0.47
5:R:1907:THR:HA	5:R:1910:PHE:HB2	1.96	0.47
5:T:3900:TYR:CD2	5:T:3900:TYR:C	2.87	0.47
1:D:3266:VAL:CG2	1:D:3266:VAL:O	2.63	0.47
4:F:1426:LEU:O	4:F:1430:VAL:HG23	2.15	0.47
6:L:3190:GLU:HG2	6:L:3203:SER:HA	1.96	0.47
1:B:1095:PHE:CA	2:N:1700:LYS:HE2	2.20	0.47
5:T:3902:LEU:O	5:T:3903:THR:OG1	2.30	0.47
4:G:2435:SER:O	4:G:2439:HIS:CD2	2.68	0.47
4:H:3405:THR:OG1	4:H:3406:ALA:N	2.46	0.47
4:H:3433:CYS:HA	4:H:3436:PHE:HD2	1.79	0.47
2:N:1515:TYR:CD2	2:N:1742:VAL:HG21	2.49	0.47
2:O:2837:LYS:HB3	2:O:2839:TRP:CZ3	2.49	0.47
5:Q:854:GLU:HA	5:Q:857:LEU:CD1	2.41	0.47
5:R:1847:THR:O	5:R:1854:GLU:HB3	2.14	0.47
5:R:1918:VAL:HG13	5:R:1919:ARG:HA	0.61	0.47
5:S:2911:LEU:CG	5:S:2918:VAL:O	2.62	0.47
5:T:3856:ILE:CB	5:T:3859:TYR:CE2	2.98	0.47
1:B:1383:PRO:HB2	2:N:1841:GLN:NE2	2.15	0.47
4:F:1432:LEU:C	4:F:1436:PHE:HD2	2.18	0.47
2:O:2731:ASN:O	2:O:2733:LYS:N	2.44	0.47
2:O:2673:PRO:HA	2:O:2732:HIS:CD2	2.50	0.47
2:N:1604:ARG:CD	3:P:3524:GLU:O	2.61	0.47
3:P:3638:ARG:HH21	3:P:3831:GLY:N	2.12	0.47
3:P:3638:ARG:HH21	3:P:3831:GLY:H	1.62	0.47
5:Q:872:SER:O	5:Q:876:PHE:HD2	1.96	0.47
5:Q:907:THR:HA	5:Q:921:THR:CG2	2.37	0.47
5:Q:908:VAL:HG11	5:Q:909:PRO:HD3	1.84	0.47
5:Q:918:VAL:HG13	5:Q:919:ARG:HA	0.61	0.47
1:A:152:HIS:HD2	1:B:1192:PHE:HD2	1.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1242:TYR:HD1	2:O:2814:LYS:HD2	1.77	0.47
1:B:1273:VAL:O	1:B:1273:VAL:HG13	2.15	0.47
1:C:2058:PRO:C	2:O:2744:ARG:CZ	2.83	0.47
1:C:2282:ILE:CG2	1:C:2283:PRO:HD2	2.45	0.47
1:D:3060:VAL:H	3:P:3743:PRO:HB3	1.79	0.47
4:E:435:SER:O	4:E:439:HIS:CD2	2.68	0.47
4:H:3435:SER:O	4:H:3439:HIS:CD2	2.68	0.47
1:B:1090:GLY:HA3	2:N:1676:PRO:HB3	1.97	0.47
3:P:3541:ALA:HB1	3:P:3655:THR:HA	1.96	0.47
5:Q:856:ILE:CB	5:Q:859:TYR:CE2	2.98	0.47
5:S:2910:PHE:CA	5:S:2911:LEU:N	2.76	0.47
5:T:3847:THR:OG1	5:T:3857:LEU:HD12	2.15	0.47
5:T:3910:PHE:CG	5:T:3921:THR:CG2	2.97	0.47
1:A:15:TYR:CD1	4:E:394:HIS:CE1	3.03	0.47
2:M:731:ASN:O	2:M:734:LYS:N	2.48	0.47
2:N:1513:ARG:CG	2:N:1514:PRO:CD	2.93	0.47
4:F:1399:VAL:CG2	5:R:1866:MET:HE1	2.45	0.47
5:S:2848:ALA:C	5:S:2854:GLU:CB	2.82	0.47
5:T:3906:ALA:CB	5:T:3907:THR:C	2.79	0.47
1:D:3057:SER:N	3:P:3739:SER:O	2.47	0.47
6:J:1157:LYS:CA	6:J:1157:LYS:HE2	2.33	0.47
2:M:638:ARG:HH21	2:M:829:THR:CG2	2.28	0.47
2:N:1509:TYR:HD2	2:N:1562:HIS:CE1	2.31	0.47
5:Q:911:LEU:H	5:Q:913:SER:HB3	1.75	0.47
5:T:3856:ILE:CB	5:T:3859:TYR:HE2	2.26	0.47
1:A:15:TYR:CD1	4:E:394:HIS:HE1	2.32	0.47
1:C:2116:THR:CG2	2:O:2763:ASN:CG	2.73	0.47
1:C:2387:ILE:CA	2:O:2841:GLN:C	2.84	0.47
4:E:432:LEU:C	4:E:436:PHE:HD2	2.18	0.47
4:F:1405:THR:OG1	4:F:1406:ALA:N	2.46	0.47
2:N:1513:ARG:HE	2:N:1736:GLN:NE2	2.12	0.47
5:R:1847:THR:HG1	5:R:1857:LEU:CD1	2.27	0.47
5:R:1854:GLU:O	5:R:1857:LEU:N	2.48	0.47
5:T:3852:PRO:O	5:T:3854:GLU:N	2.48	0.47
1:A:266:VAL:CG2	1:A:266:VAL:O	2.63	0.46
1:B:1034:LEU:HB2	1:B:1132:LYS:HB3	1.96	0.46
1:C:2297:THR:O	1:C:2298:ASP:C	2.53	0.46
4:G:2432:LEU:C	4:G:2436:PHE:CD2	2.86	0.46
5:Q:897:ILE:HG21	6:I:165:LYS:HZ3	1.80	0.46
6:I:227:LYS:NZ	6:I:227:LYS:CB	2.71	0.46
6:J:1190:GLU:HG2	6:J:1203:SER:HA	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:K:2227:LYS:HZ1	6:K:2229:ARG:CZ	2.27	0.46
2:M:639:GLU:CG	2:M:832:ASN:ND2	2.77	0.46
2:N:1698:ARG:O	2:N:1727:ALA:HA	2.15	0.46
5:Q:854:GLU:O	5:Q:857:LEU:N	2.48	0.46
4:E:432:LEU:CD2	5:Q:894:ARG:CD	2.84	0.46
5:R:1848:ALA:HA	5:R:1858:TYR:HH	1.72	0.46
5:R:1917:CYS:O	5:R:1920:THR:HG23	2.11	0.46
5:S:2851:HIS:O	5:S:2852:PRO:C	2.54	0.46
1:A:129:ALA:HB1	1:A:166:MET:CG	2.44	0.46
1:D:3254:THR:HG22	3:P:3806:TYR:CG	2.50	0.46
2:M:509:TYR:HD1	2:M:553:GLN:NE2	2.13	0.46
2:M:669:VAL:O	2:M:670:HIS:HB3	2.15	0.46
2:O:2513:ARG:HB2	2:O:2514:PRO:HD2	1.97	0.46
5:Q:900:TYR:CD2	5:Q:900:TYR:C	2.86	0.46
5:S:2843:SER:O	5:S:2844:THR:O	2.33	0.46
1:C:2018:LEU:HD21	1:C:2368:GLN:OE1	2.15	0.46
1:D:3294:PRO:HG3	1:D:3324:LYS:HG3	1.96	0.46
4:H:3432:LEU:C	4:H:3436:PHE:CD2	2.86	0.46
1:A:385:ASP:CB	2:M:841:GLN:CB	2.73	0.46
2:N:1514:PRO:CD	2:N:1568:ARG:CZ	2.94	0.46
2:O:2674:ASP:HB3	2:O:2729:VAL:O	2.16	0.46
5:R:1852:PRO:O	5:R:1854:GLU:N	2.48	0.46
5:T:3872:SER:O	5:T:3876:PHE:HD2	1.96	0.46
4:F:1435:SER:O	4:F:1439:HIS:CD2	2.68	0.46
6:I:205:GLY:O	6:I:206:ARG:HG3	2.16	0.46
5:Q:906:ALA:CB	5:Q:907:THR:C	2.79	0.46
1:A:360:LEU:HD22	4:E:402:ILE:HG12	1.96	0.46
1:A:362:SER:HB3	4:E:402:ILE:CD1	2.44	0.46
1:C:2088:MET:HE1	2:O:2743:PRO:HD2	1.23	0.46
5:Q:897:ILE:HG21	6:I:165:LYS:NZ	2.31	0.46
6:L:3205:GLY:O	6:L:3206:ARG:HG3	2.16	0.46
5:S:2918:VAL:CA	5:S:2919:ARG:HG2	2.44	0.46
5:T:3918:VAL:CB	5:T:3919:ARG:HA	2.36	0.46
1:D:3173:PHE:CZ	1:D:3261:ILE:HD12	2.51	0.46
4:G:2432:LEU:C	4:G:2436:PHE:HD2	2.18	0.46
6:I:257:THR:HG22	6:I:258:LYS:N	2.31	0.46
6:L:3257:THR:HG22	6:L:3258:LYS:N	2.31	0.46
3:P:3673:PRO:HG3	3:P:3743:PRO:HD2	1.98	0.46
5:R:1900:TYR:C	5:R:1900:TYR:CD2	2.87	0.46
1:A:273:VAL:HG13	1:A:273:VAL:O	2.15	0.46
1:D:3388:VAL:O	3:P:3840:PRO:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1604:ARG:HE	3:P:3524:GLU:C	2.19	0.46
2:O:2639:GLU:HA	2:O:2791:HIS:CE1	2.40	0.46
1:C:2092:ALA:N	2:O:2678:ARG:NH2	2.63	0.46
5:R:1916:CYS:SG	5:R:1920:THR:HG23	2.56	0.46
1:A:360:LEU:HD21	4:E:401:ASP:OD2	2.12	0.46
4:F:1399:VAL:HG21	5:R:1866:MET:HE2	1.96	0.46
5:Q:852:PRO:O	5:Q:854:GLU:N	2.48	0.46
5:R:1907:THR:O	5:R:1908:VAL:C	2.54	0.46
4:H:3424:ALA:HB1	5:T:3888:MET:SD	2.55	0.46
5:T:3900:TYR:HD1	6:L:3161:LYS:HZ3	1.62	0.46
5:T:3907:THR:O	5:T:3908:VAL:C	2.54	0.46
5:T:3910:PHE:HA	5:T:3913:SER:HB3	1.85	0.46
1:A:293:ALA:HB1	1:A:294:PRO:HD2	1.98	0.46
1:C:2092:ALA:HB3	2:O:2678:ARG:NH2	2.30	0.46
6:I:190:GLU:HG2	6:I:203:SER:HA	1.97	0.46
6:J:1132:TYR:CE1	6:J:1221:ARG:HG2	2.51	0.46
6:K:2147:LYS:N	6:K:2147:LYS:HD2	2.31	0.46
6:K:2257:THR:HG22	6:K:2258:LYS:N	2.31	0.46
5:Q:906:ALA:HB2	5:Q:909:PRO:HD2	0.61	0.46
5:S:2862:LEU:N	5:S:2863:TYR:HE2	2.07	0.46
4:G:2428:LEU:HG	5:S:2895:ARG:HH21	1.80	0.46
1:C:2018:LEU:CD1	1:C:2368:GLN:OE1	2.64	0.46
4:E:426:LEU:O	4:E:430:VAL:HG23	2.15	0.46
4:F:1400:GLN:HG2	4:F:1400:GLN:H	1.61	0.46
2:O:2636:ILE:HG22	2:O:2768:VAL:HG11	1.97	0.46
1:D:3090:GLY:CA	3:P:3677:ASP:CA	2.67	0.46
1:D:3058:PRO:HD2	3:P:3742:VAL:C	2.36	0.46
5:R:1911:LEU:H	5:R:1913:SER:HB3	1.75	0.46
1:A:57:SER:O	2:M:744:ARG:CZ	2.63	0.45
6:J:1257:THR:HG22	6:J:1258:LYS:N	2.31	0.45
2:N:1834:GLU:O	2:N:1835:PRO:C	2.54	0.45
1:C:2387:ILE:C	2:O:2841:GLN:C	2.75	0.45
5:Q:918:VAL:CB	5:Q:919:ARG:HA	2.35	0.45
5:S:2847:THR:O	5:S:2858:TYR:CE2	2.69	0.45
1:A:110:LYS:HG3	1:A:213:VAL:HG11	1.99	0.45
1:C:2129:ALA:O	1:C:2147:TYR:HD1	1.98	0.45
2:M:672:PRO:CA	2:M:736:GLN:CB	2.90	0.45
3:P:3640:LYS:HB2	3:P:3792:PRO:HB2	1.97	0.45
5:Q:897:ILE:CG2	5:Q:898:THR:H	2.25	0.45
5:R:1856:ILE:HG23	5:R:1859:TYR:CD2	2.51	0.45
5:T:3907:THR:HA	5:T:3910:PHE:HB2	1.96	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:T:3917:CYS:C	5:T:3920:THR:HG1	2.19	0.45
1:A:9:ASN:HB2	1:A:274:GLY:O	2.16	0.45
1:B:1110:LYS:HG3	1:B:1213:VAL:HG11	1.98	0.45
1:D:3162:ILE:O	1:D:3162:ILE:HG22	2.14	0.45
2:M:538:ARG:HB3	2:M:656:TYR:OH	2.15	0.45
1:D:3387:ILE:CA	3:P:3841:GLN:C	2.85	0.45
5:Q:856:ILE:HG23	5:Q:859:TYR:CD2	2.51	0.45
5:R:1902:LEU:O	5:R:1903:THR:OG1	2.30	0.45
5:S:2850:GLY:HA2	5:S:2851:HIS:C	2.24	0.45
5:S:2901:GLU:CA	5:S:2902:LEU:HB2	2.32	0.45
5:T:3916:CYS:HG	5:T:3920:THR:HG23	1.82	0.45
1:A:249:ALA:CB	2:M:806:TYR:CE2	2.98	0.45
1:C:2279:SER:C	1:C:2280:ILE:HG13	2.36	0.45
4:E:427:ILE:HG21	5:Q:895:ARG:NH2	2.31	0.45
1:D:3256:PRO:CB	3:P:3802:GLU:O	2.62	0.45
1:D:3386:HIS:O	3:P:3842:MET:CA	2.63	0.45
5:S:2849:HIS:CB	5:S:2851:HIS:O	2.63	0.45
5:S:2909:PRO:C	5:S:2910:PHE:C	2.75	0.45
5:T:3897:ILE:CG2	5:T:3898:THR:H	2.24	0.45
5:T:3916:CYS:SG	5:T:3920:THR:HG23	2.56	0.45
1:D:3036:VAL:O	1:D:3269:VAL:HA	2.17	0.45
4:H:3432:LEU:C	4:H:3436:PHE:HD2	2.18	0.45
6:I:147:LYS:HD2	6:I:147:LYS:N	2.31	0.45
6:J:1253:LYS:HD2	6:J:1254:ASP:OD1	2.17	0.45
6:K:2205:GLY:O	6:K:2206:ARG:HG3	2.16	0.45
6:K:2253:LYS:HD2	6:K:2254:ASP:OD1	2.17	0.45
2:M:513:ARG:HH21	2:M:673:PRO:HG2	1.81	0.45
2:M:517:ALA:HB3	2:M:533:ALA:CB	2.46	0.45
2:N:1639:GLU:OE2	2:N:1831:GLY:CA	2.64	0.45
1:D:3060:VAL:HG23	3:P:3743:PRO:HG3	1.98	0.45
5:Q:916:CYS:SG	5:Q:920:THR:HG23	2.56	0.45
5:S:2907:THR:H	5:S:2921:THR:HG22	1.74	0.45
5:S:2906:ALA:CB	5:S:2908:VAL:HB	2.44	0.45
1:B:1242:TYR:CA	2:O:2814:LYS:HZ3	2.26	0.45
5:R:1898:THR:CG2	6:J:1165:LYS:HB3	2.45	0.45
5:T:3856:ILE:HG23	5:T:3859:TYR:CD2	2.51	0.45
4:E:405:THR:OG1	4:E:406:ALA:N	2.46	0.45
4:H:3394:HIS:O	4:H:3395:THR:OG1	2.30	0.45
2:O:2511:ALA:O	2:O:2735:TRP:N	2.46	0.45
4:F:1403:SER:HB3	5:R:1858:TYR:OH	2.16	0.45
5:T:3908:VAL:CG1	5:T:3909:PRO:N	2.68	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1293:ALA:O	1:B:1324:LYS:CE	2.65	0.45
1:C:2273:VAL:O	1:C:2273:VAL:HG13	2.17	0.45
6:J:1205:GLY:O	6:J:1206:ARG:HG3	2.16	0.45
6:L:3147:LYS:HD2	6:L:3147:LYS:N	2.31	0.45
1:D:3093:TYR:HD1	3:P:3674:ASP:O	1.97	0.45
1:D:3055:ILE:CD1	3:P:3740:PRO:HG3	2.47	0.45
5:Q:907:THR:O	5:Q:908:VAL:C	2.54	0.45
5:S:2875:SER:HA	5:S:2878:LEU:HD12	1.99	0.45
5:T:3847:THR:O	5:T:3854:GLU:HB3	2.17	0.45
1:C:2359:ALA:HB3	4:G:2395:THR:HB	1.98	0.45
2:N:1638:ARG:NH2	2:N:1794:LEU:CG	2.73	0.45
2:O:2841:GLN:HA	2:O:2842:LEU:HA	1.46	0.45
5:R:1906:ALA:CB	5:R:1907:THR:C	2.80	0.45
5:T:3875:SER:HA	5:T:3878:LEU:HD12	1.99	0.45
1:C:2237:PRO:HG3	3:P:3788:TYR:HD2	1.77	0.45
1:D:3110:LYS:HG3	1:D:3213:VAL:HG11	1.99	0.45
2:N:1516:LEU:HD12	2:N:1570:MET:CG	2.47	0.45
5:Q:902:LEU:HD12	6:I:139:LYS:HG2	1.96	0.44
6:I:136:VAL:HG22	6:I:184:PHE:HD2	1.82	0.44
6:I:120:ILE:HD11	6:I:222:PRO:HG3	1.98	0.44
1:C:2089:TRP:CH2	2:O:2573:HIS:HD2	2.34	0.44
5:T:3916:CYS:SG	5:T:3919:ARG:O	2.75	0.44
1:A:9:ASN:CB	1:A:274:GLY:O	2.66	0.44
1:D:3393:SER:C	4:H:3395:THR:HG23	2.36	0.44
6:J:1124:LYS:HD2	6:J:1151:ASP:HB2	1.99	0.44
6:J:1147:LYS:N	6:J:1147:LYS:HD2	2.31	0.44
6:L:3157:LYS:CA	6:L:3157:LYS:HE2	2.33	0.44
5:Q:916:CYS:SG	5:Q:919:ARG:O	2.75	0.44
5:Q:916:CYS:HG	5:Q:920:THR:HG23	1.82	0.44
5:R:1916:CYS:SG	5:R:1919:ARG:O	2.75	0.44
5:S:2922:LYS:HG2	5:S:2923:ALA:HB1	1.01	0.44
6:L:3253:LYS:HD2	6:L:3254:ASP:OD1	2.17	0.44
2:M:540:GLU:HB2	2:M:656:TYR:CZ	2.51	0.44
2:N:1768:VAL:CB	2:N:1832:ASN:HD21	2.18	0.44
1:C:2242:TYR:HB2	3:P:3814:LYS:HZ3	1.81	0.44
5:R:1907:THR:O	5:R:1910:PHE:HB2	2.18	0.44
5:R:1906:ALA:N	5:R:1908:VAL:HG23	2.33	0.44
1:D:3388:VAL:CB	3:P:3841:GLN:CA	2.64	0.44
6:I:124:LYS:HD2	6:I:151:ASP:HB2	2.00	0.44
6:I:227:LYS:HZ1	6:I:229:ARG:CZ	2.30	0.44
6:I:231:VAL:O	6:I:250:THR:HG23	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:3124:LYS:HD2	6:L:3151:ASP:HB2	2.00	0.44
3:P:3673:PRO:CG	3:P:3742:VAL:CG1	2.94	0.44
1:D:3058:PRO:C	3:P:3743:PRO:HA	2.30	0.44
5:R:1875:SER:HA	5:R:1878:LEU:HD12	1.99	0.44
1:B:1294:PRO:HB3	1:B:1324:LYS:HG2	2.00	0.44
1:C:2265:PRO:O	1:C:2267:ARG:HD3	2.17	0.44
4:F:1395:THR:O	4:F:1396:THR:HG23	2.17	0.44
6:K:2124:LYS:HD2	6:K:2151:ASP:HB2	2.00	0.44
5:R:1856:ILE:CB	5:R:1859:TYR:CE2	2.98	0.44
5:T:3854:GLU:O	5:T:3857:LEU:N	2.48	0.44
5:T:3847:THR:OG1	5:T:3857:LEU:CD1	2.66	0.44
1:C:2131:ALA:C	1:C:2132:LYS:N	2.71	0.44
2:N:1788:TYR:CZ	1:D:3237:PRO:HG2	2.52	0.44
6:I:253:LYS:HD2	6:I:254:ASP:OD1	2.17	0.44
1:A:59:TYR:HB2	2:M:744:ARG:NH2	2.32	0.44
2:M:837:LYS:HB3	2:M:839:TRP:CZ3	2.51	0.44
2:N:1514:PRO:HD3	2:N:1568:ARG:CZ	2.43	0.44
3:P:3648:GLY:HA3	3:P:3768:VAL:O	2.17	0.44
5:Q:851:HIS:HB2	5:Q:852:PRO:HD3	1.58	0.44
5:S:2903:THR:O	5:S:2904:PRO:C	2.55	0.44
5:S:2907:THR:CA	5:S:2921:THR:CB	2.94	0.44
5:T:3906:ALA:CA	5:T:3908:VAL:HB	2.48	0.44
1:B:1291:VAL:O	1:B:1291:VAL:HG12	2.17	0.44
1:B:1388:VAL:O	2:N:1839:TRP:HB2	2.18	0.44
1:D:3129:ALA:O	1:D:3148:ALA:N	2.50	0.44
6:L:3231:VAL:O	6:L:3250:THR:HG23	2.18	0.44
2:M:638:ARG:HH21	2:M:829:THR:CB	2.31	0.44
2:N:1604:ARG:NE	3:P:3524:GLU:C	2.65	0.44
2:N:1639:GLU:HA	2:N:1792:PRO:O	2.17	0.44
5:R:1907:THR:HA	5:R:1921:THR:CG2	2.37	0.44
5:R:1916:CYS:SG	5:R:1918:VAL:C	2.96	0.44
5:S:2846:GLY:N	5:S:2861:GLU:OE2	2.51	0.44
5:S:2897:ILE:CG2	5:S:2898:THR:N	2.60	0.44
1:B:1198:GLY:HA3	2:O:2786:LEU:HD22	1.99	0.44
6:K:2166:TYR:HA	6:K:2258:LYS:HD2	1.99	0.44
2:M:638:ARG:NH2	2:M:796:SER:OG	2.32	0.44
2:O:2639:GLU:HG2	2:O:2791:HIS:HE1	1.73	0.44
5:R:1918:VAL:HG22	5:R:1921:THR:N	2.27	0.44
5:T:3898:THR:CB	5:T:3899:PRO:HD3	2.48	0.44
5:T:3907:THR:HA	5:T:3921:THR:CG2	2.37	0.44
1:D:3088:MET:HE2	3:P:3675:THR:CB	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1524:GLU:OE1	2:O:2592:THR:HB	2.18	0.44
2:N:1670:HIS:ND1	2:N:1671:MET:O	2.49	0.44
2:N:1672:PRO:CB	2:N:1731:ASN:ND2	2.72	0.44
2:O:2821:VAL:HG11	2:O:2840:PRO:HD3	1.95	0.44
5:Q:897:ILE:CG2	5:Q:898:THR:N	2.64	0.44
5:Q:906:ALA:N	5:Q:908:VAL:HG23	2.33	0.44
5:R:1898:THR:CB	5:R:1899:PRO:HD3	2.48	0.44
5:S:2900:TYR:OH	6:K:2163:SER:CB	2.66	0.44
5:S:2901:GLU:OE2	5:S:2902:LEU:HD12	2.18	0.44
5:S:2911:LEU:HD23	5:S:2912:LEU:C	2.39	0.44
5:T:3906:ALA:N	5:T:3908:VAL:HG23	2.32	0.44
6:J:1231:VAL:O	6:J:1250:THR:HG23	2.18	0.43
2:N:1515:TYR:HB3	2:N:1736:GLN:NE2	2.32	0.43
2:N:1642:HIS:HB3	3:P:3610:THR:CG2	2.47	0.43
2:N:1672:PRO:CB	2:N:1731:ASN:CB	2.83	0.43
2:N:1786:LEU:CD2	1:D:3198:GLY:HA3	2.48	0.43
5:Q:917:CYS:C	5:Q:920:THR:HG1	2.21	0.43
5:T:3898:THR:OG1	5:T:3899:PRO:HD3	2.18	0.43
5:T:3907:THR:O	5:T:3910:PHE:HB2	2.18	0.43
1:C:2110:LYS:HG3	1:C:2213:VAL:HG11	1.99	0.43
2:N:1542:THR:HG21	2:N:1654:SER:OG	2.15	0.43
3:P:3639:GLU:HG2	3:P:3791:HIS:CD2	2.53	0.43
5:Q:875:SER:HA	5:Q:878:LEU:HD12	1.99	0.43
5:Q:916:CYS:SG	5:Q:918:VAL:C	2.96	0.43
5:R:1901:GLU:CD	6:J:1169:GLU:CA	2.85	0.43
5:R:1916:CYS:HG	5:R:1920:THR:HG23	1.83	0.43
5:S:2909:PRO:C	5:S:2910:PHE:CA	2.86	0.43
5:T:3918:VAL:HG13	5:T:3919:ARG:HA	0.61	0.43
1:A:133:LEU:HG	1:A:134:ARG:N	2.34	0.43
1:B:1388:VAL:N	2:N:1839:TRP:CB	2.66	0.43
1:C:2179:VAL:HG21	1:C:2266:VAL:HG11	2.00	0.43
6:J:1227:LYS:HZ1	6:J:1229:ARG:CZ	2.31	0.43
2:N:1602:LEU:CD2	2:N:1759:PHE:CD2	3.01	0.43
1:D:3057:SER:HA	3:P:3742:VAL:O	2.14	0.43
5:R:1902:LEU:CD1	6:J:1171:ALA:O	2.66	0.43
5:S:2919:ARG:C	5:S:2920:THR:N	2.72	0.43
5:T:3916:CYS:SG	5:T:3918:VAL:C	2.96	0.43
6:I:262:GLU:CB	6:K:2175:VAL:HG11	2.42	0.43
6:K:2231:VAL:O	6:K:2250:THR:HG23	2.18	0.43
1:B:1387:ILE:HD11	2:N:1840:PRO:HG3	1.58	0.43
2:N:1524:GLU:OE1	2:O:2592:THR:CB	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3231:VAL:CG2	3:P:3740:PRO:O	2.66	0.43
5:Q:898:THR:CB	5:Q:899:PRO:HD3	2.48	0.43
5:R:1847:THR:OG1	5:R:1857:LEU:HD13	2.17	0.43
4:F:1409:TRP:CG	5:R:1851:HIS:CE1	3.02	0.43
6:J:1157:LYS:CE	6:J:1157:LYS:HA	2.30	0.43
2:N:1645:PRO:CG	2:N:1769:PRO:CG	2.74	0.43
5:R:1897:ILE:CG2	5:R:1898:THR:H	2.24	0.43
5:S:2896:CYS:C	5:S:2899:PRO:CG	2.82	0.43
1:A:129:ALA:HB1	1:A:148:ALA:CB	2.38	0.43
1:B:1179:VAL:HG21	1:B:1266:VAL:HG11	2.01	0.43
1:B:1393:SER:C	4:F:1394:HIS:CD2	2.92	0.43
1:C:2131:ALA:CB	1:C:2132:LYS:N	2.76	0.43
4:G:2402:ILE:HG23	4:G:2404:THR:HG21	1.45	0.43
6:L:3188:LYS:NZ	6:L:3250:THR:HG21	2.34	0.43
2:M:573:HIS:O	2:M:675:THR:OG1	2.02	0.43
2:N:1509:TYR:CB	2:N:1556:ILE:HD11	2.47	0.43
2:N:1773:ASN:H	1:D:3234:SER:HB2	1.83	0.43
3:P:3595:GLY:CA	3:P:3759:PHE:CE1	3.00	0.43
3:P:3671:MET:SD	3:P:3732:HIS:CD2	3.12	0.43
5:Q:906:ALA:CA	5:Q:908:VAL:HB	2.48	0.43
5:R:1906:ALA:CA	5:R:1908:VAL:HB	2.48	0.43
5:S:2910:PHE:HE1	5:S:2921:THR:HB	1.55	0.43
1:D:3056:PRO:C	3:P:3740:PRO:CA	2.75	0.43
4:F:1399:VAL:CG2	5:R:1866:MET:CE	2.96	0.43
6:J:1254:ASP:OD2	6:J:1255:ILE:HG13	2.19	0.43
2:N:1638:ARG:HH21	2:N:1794:LEU:HG	1.79	0.43
2:O:2517:ALA:HB3	2:O:2533:ALA:HB3	2.01	0.43
5:R:1907:THR:O	5:R:1910:PHE:CB	2.66	0.43
5:T:3849:HIS:HB3	5:T:3851:HIS:O	2.18	0.43
6:I:254:ASP:OD2	6:I:255:ILE:HG13	2.19	0.43
6:K:2188:LYS:NZ	6:K:2250:THR:HG21	2.34	0.43
2:M:673:PRO:CG	2:M:736:GLN:NE2	2.69	0.43
2:N:1513:ARG:CG	2:N:1514:PRO:HD2	2.49	0.43
2:N:1525:GLY:HA3	2:O:2644:ARG:HG2	1.98	0.43
5:Q:881:MET:O	5:Q:884:THR:OG1	2.36	0.43
5:R:1901:GLU:HA	6:J:1161:LYS:O	2.18	0.43
2:N:1519:CYS:SG	2:N:1520:PRO:HD2	2.59	0.43
2:O:2516:LEU:HD12	2:O:2570:MET:HG3	1.98	0.43
5:R:1898:THR:OG1	5:R:1899:PRO:HD3	2.18	0.43
1:D:3093:TYR:HE1	3:P:3674:ASP:H	1.65	0.43
2:N:1788:TYR:CD2	1:D:3237:PRO:HB2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:849:HIS:ND1	5:Q:855:ILE:HG13	2.23	0.43
5:Q:907:THR:O	5:Q:910:PHE:HB2	2.18	0.43
5:S:2919:ARG:C	5:S:2920:THR:HA	2.39	0.43
5:T:3890:VAL:O	5:T:3894:ARG:HG3	2.19	0.43
1:A:256:PRO:CB	2:M:804:PRO:HD3	2.46	0.42
3:P:3674:ASP:HA	3:P:3729:VAL:O	2.17	0.42
5:R:1849:HIS:CE1	5:R:1855:ILE:HG12	2.27	0.42
4:F:1428:LEU:CD2	5:R:1891:CYS:HB3	2.49	0.42
5:R:1900:TYR:HD2	5:R:1901:GLU:N	2.16	0.42
6:J:1238:ALA:HB2	6:J:1264:ALA:HA	2.01	0.42
6:J:1253:LYS:HD2	6:J:1254:ASP:HB3	2.01	0.42
6:K:2253:LYS:HD2	6:K:2254:ASP:HB3	2.01	0.42
6:K:2255:ILE:CG2	6:K:2256:VAL:N	2.82	0.42
2:N:1592:THR:OG1	3:P:3524:GLU:HG2	2.17	0.42
2:O:2524:GLU:HG2	3:P:3592:THR:HG21	1.55	0.42
3:P:3841:GLN:HB3	3:P:3842:MET:H	1.62	0.42
5:R:1913:SER:OG	5:R:1917:CYS:CB	2.67	0.42
1:A:290:VAL:HG11	1:C:2305:ALA:HB2	2.01	0.42
2:N:1788:TYR:CE2	1:D:3237:PRO:CG	2.85	0.42
4:F:1424:ALA:HB1	5:R:1888:MET:SD	2.53	0.42
6:I:188:LYS:NZ	6:I:250:THR:HG21	2.34	0.42
6:L:3253:LYS:HG3	6:L:3254:ASP:H	1.84	0.42
2:M:519:CYS:HB3	2:M:522:CYS:SG	2.59	0.42
1:D:3088:MET:HE1	3:P:3675:THR:OG1	2.19	0.42
5:Q:890:VAL:O	5:Q:894:ARG:HG3	2.19	0.42
5:Q:900:TYR:HD2	5:Q:901:GLU:N	2.16	0.42
5:Q:907:THR:O	5:Q:910:PHE:CB	2.67	0.42
5:Q:919:ARG:C	5:Q:920:THR:CG2	2.86	0.42
5:S:2882:VAL:O	5:S:2886:VAL:HG23	2.20	0.42
5:S:2913:SER:N	5:S:2914:LEU:HA	2.34	0.42
5:T:3897:ILE:O	5:T:3900:TYR:HB3	2.19	0.42
5:T:3907:THR:O	5:T:3910:PHE:CB	2.67	0.42
5:T:3911:LEU:H	5:T:3913:SER:HB3	1.75	0.42
5:R:1898:THR:HG22	6:J:1166:TYR:CE2	2.55	0.42
2:M:639:GLU:OE1	2:M:769:PRO:O	2.37	0.42
1:A:253:HIS:O	2:M:798:ARG:HD3	2.20	0.42
2:N:1639:GLU:CA	2:N:1792:PRO:O	2.68	0.42
2:N:1673:PRO:CB	2:N:1744:ARG:C	2.76	0.42
5:S:2890:VAL:O	5:S:2894:ARG:HG3	2.19	0.42
6:I:253:LYS:HG3	6:I:254:ASP:H	1.84	0.42
6:I:238:ALA:HB2	6:I:264:ALA:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:3254:ASP:OD2	6:L:3255:ILE:HG13	2.19	0.42
2:N:1646:GLN:HE21	3:P:3518:HIS:CG	2.20	0.42
2:N:1541:ALA:N	2:N:1656:TYR:HE2	1.84	0.42
2:N:1764:VAL:HB	2:N:1765:THR:H	1.73	0.42
2:O:2514:PRO:CB	2:O:2553:GLN:OE1	2.68	0.42
1:C:2091:GLY:C	2:O:2678:ARG:HE	2.22	0.42
5:R:1902:LEU:CD1	6:J:1171:ALA:C	2.87	0.42
1:A:362:SER:CB	4:E:402:ILE:HD13	2.50	0.42
4:H:3424:ALA:O	4:H:3428:LEU:HG	2.20	0.42
6:I:253:LYS:HD2	6:I:254:ASP:HB3	2.01	0.42
1:A:387:ILE:CG1	2:M:781:ASN:OD1	2.67	0.42
3:P:3729:VAL:HG12	3:P:3730:THR:N	2.35	0.42
1:D:3387:ILE:HA	3:P:3841:GLN:C	2.40	0.42
5:Q:918:VAL:HG22	5:Q:921:THR:N	2.27	0.42
5:R:1881:MET:O	5:R:1884:THR:OG1	2.36	0.42
5:T:3850:GLY:HA2	5:T:3851:HIS:C	2.38	0.42
1:D:3089:TRP:HE3	3:P:3675:THR:HG21	1.85	0.42
2:M:513:ARG:HH21	2:M:673:PRO:CG	2.33	0.42
2:M:640:LYS:HE3	2:M:810:TRP:CZ3	2.54	0.42
2:O:2511:ALA:O	2:O:2735:TRP:HB2	2.20	0.42
3:P:3672:PRO:HD2	3:P:3731:ASN:O	2.20	0.42
3:P:3640:LYS:HB2	3:P:3792:PRO:CB	2.50	0.42
5:R:1882:VAL:O	5:R:1886:VAL:HG23	2.20	0.42
5:R:1897:ILE:O	5:R:1900:TYR:HB3	2.19	0.42
1:C:2130:SER:HB3	1:C:2147:TYR:CE1	2.55	0.42
1:C:2386:HIS:CB	5:S:2843:SER:CB	2.49	0.42
1:D:3370:CYS:HB3	1:D:3371:SER:H	1.76	0.42
4:E:424:ALA:O	4:E:428:LEU:HG	2.20	0.42
6:J:1185:THR:CG2	6:J:1229:ARG:HB3	2.46	0.42
6:L:3238:ALA:HB2	6:L:3264:ALA:HA	2.01	0.42
2:N:1542:THR:N	2:N:1654:SER:O	2.49	0.42
2:N:1516:LEU:HG	2:N:1570:MET:HB3	2.02	0.42
2:O:2527:SER:HB2	3:P:3646:GLN:HE21	1.63	0.42
2:O:2634:PRO:O	2:O:2635:VAL:C	2.56	0.42
5:Q:898:THR:OG1	5:Q:899:PRO:HD3	2.18	0.42
5:Q:907:THR:CG2	5:Q:921:THR:OG1	2.48	0.42
5:R:1918:VAL:CA	5:R:1919:ARG:C	2.87	0.42
5:S:2872:SER:O	5:S:2876:PHE:HD2	1.97	0.42
4:G:2428:LEU:HD11	5:S:2895:ARG:NE	2.32	0.42
1:B:1034:LEU:CD1	1:B:1132:LYS:HE2	2.50	0.42
6:J:1188:LYS:NZ	6:J:1250:THR:HG21	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:93:TYR:OH	2:M:744:ARG:O	2.27	0.42
2:N:1541:ALA:N	2:N:1656:TYR:OH	2.52	0.42
2:O:2636:ILE:HG22	2:O:2768:VAL:CG1	2.50	0.42
1:C:2088:MET:HE3	2:O:2743:PRO:HD3	1.57	0.42
5:Q:882:VAL:O	5:Q:886:VAL:HG23	2.20	0.42
1:B:1294:PRO:HB3	1:B:1324:LYS:HG3	2.02	0.42
1:D:3129:ALA:HB3	1:D:3166:MET:HG2	2.00	0.42
6:K:2157:LYS:CE	6:K:2157:LYS:HA	2.30	0.42
6:K:2254:ASP:OD2	6:K:2255:ILE:HG13	2.19	0.42
6:L:3253:LYS:HD2	6:L:3254:ASP:HB3	2.01	0.42
2:N:1649:LYS:O	2:N:1768:VAL:HG22	2.19	0.42
5:R:1890:VAL:O	5:R:1894:ARG:HG3	2.19	0.42
4:F:1428:LEU:CD2	5:R:1895:ARG:HH21	2.29	0.42
5:S:2918:VAL:N	5:S:2919:ARG:HG2	2.35	0.42
4:H:3428:LEU:HD23	5:T:3895:ARG:HH21	1.84	0.42
5:T:3908:VAL:HG11	5:T:3909:PRO:HD3	1.84	0.42
2:M:638:ARG:HH21	2:M:829:THR:HG22	1.84	0.41
1:A:255:ALA:C	2:M:804:PRO:HG3	2.40	0.41
3:P:3671:MET:HG2	3:P:3732:HIS:CD2	2.55	0.41
5:Q:910:PHE:O	5:Q:913:SER:OG	2.38	0.41
5:Q:913:SER:OG	5:Q:917:CYS:CB	2.67	0.41
5:R:1908:VAL:HG11	5:R:1909:PRO:HD3	1.84	0.41
5:S:2847:THR:OG1	5:S:2854:GLU:CG	2.42	0.41
1:A:151:ASP:OD2	1:B:1191:PRO:HB2	1.48	0.41
6:L:3255:ILE:CG2	6:L:3256:VAL:N	2.82	0.41
5:T:3882:VAL:O	5:T:3886:VAL:HG23	2.20	0.41
1:B:1299:MET:HA	1:B:1319:LYS:O	2.20	0.41
6:I:255:ILE:CG2	6:I:256:VAL:N	2.82	0.41
6:J:1255:ILE:CG2	6:J:1256:VAL:N	2.82	0.41
2:M:632:ASP:O	2:M:633:PRO:C	2.57	0.41
2:O:2542:THR:HG1	2:O:2654:SER:N	2.17	0.41
1:C:2386:HIS:O	2:O:2841:GLN:HA	2.17	0.41
5:R:1848:ALA:N	5:R:1854:GLU:CD	2.73	0.41
5:R:1906:ALA:CB	5:R:1909:PRO:HG2	2.50	0.41
4:G:2428:LEU:CD1	5:S:2895:ARG:NH2	2.78	0.41
1:B:1041:THR:O	1:B:1042:LEU:CG	2.68	0.41
1:C:2041:THR:O	1:C:2042:LEU:CG	2.67	0.41
4:E:396:THR:O	4:E:397:LEU:HD23	2.20	0.41
4:F:1402:ILE:H	4:F:1402:ILE:HG12	1.53	0.41
4:G:2424:ALA:O	4:G:2428:LEU:HG	2.20	0.41
6:K:2238:ALA:HB2	6:K:2264:ALA:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:597:MET:HG2	2:M:660:THR:HG23	2.01	0.41
2:N:1513:ARG:HG3	2:N:1514:PRO:HD2	2.00	0.41
2:N:1733:LYS:HB3	2:N:1734:LYS:H	1.50	0.41
2:O:2676:PRO:HA	2:O:2728:ALA:HB2	2.01	0.41
5:T:3906:ALA:CB	5:T:3910:PHE:HD2	2.32	0.41
4:G:2434:VAL:HG12	4:G:2438:ARG:NE	2.36	0.41
6:J:1253:LYS:HG3	6:J:1254:ASP:H	1.84	0.41
1:B:1237:PRO:HB2	2:O:2788:TYR:CE2	2.56	0.41
3:P:3513:ARG:HH21	3:P:3736:GLN:HE22	1.67	0.41
3:P:3513:ARG:HB2	3:P:3514:PRO:HD2	2.01	0.41
5:Q:898:THR:O	5:Q:900:TYR:N	2.50	0.41
5:R:1844:THR:O	5:R:1845:ASN:C	2.57	0.41
5:T:3910:PHE:O	5:T:3913:SER:OG	2.38	0.41
1:A:387:ILE:HG13	2:M:840:PRO:HB3	1.52	0.41
1:C:2242:TYR:HB2	3:P:3814:LYS:NZ	2.36	0.41
1:D:3387:ILE:HA	3:P:3841:GLN:H	0.79	0.41
5:S:2898:THR:OG1	5:S:2899:PRO:HD3	2.20	0.41
1:C:2272:ALA:O	1:C:2273:VAL:CB	2.64	0.41
4:E:402:ILE:H	4:E:402:ILE:HG12	1.53	0.41
4:F:1424:ALA:O	4:F:1428:LEU:HG	2.20	0.41
2:N:1518:HIS:CG	2:N:1519:CYS:N	2.89	0.41
2:N:1645:PRO:CB	2:N:1769:PRO:HB3	2.50	0.41
1:D:3229:VAL:HG12	3:P:3741:LEU:O	2.21	0.41
4:E:424:ALA:O	5:Q:891:CYS:SG	2.78	0.41
5:R:1910:PHE:O	5:R:1913:SER:OG	2.38	0.41
5:R:1919:ARG:C	5:R:1920:THR:CG2	2.86	0.41
5:T:3900:TYR:HD2	5:T:3901:GLU:N	2.16	0.41
4:E:430:VAL:O	4:E:434:VAL:HG23	2.21	0.41
2:M:639:GLU:CB	2:M:832:ASN:HD22	2.07	0.41
5:Q:897:ILE:O	5:Q:900:TYR:HB3	2.19	0.41
5:S:2854:GLU:HA	5:S:2857:LEU:CG	2.51	0.41
5:S:2856:ILE:CG1	5:S:2859:TYR:CE2	3.01	0.41
5:T:3906:ALA:CB	5:T:3909:PRO:HG2	2.50	0.41
1:A:132:LYS:HB2	1:A:145:THR:OG1	2.20	0.41
1:A:28:VAL:HB	1:A:342:ALA:HB1	2.03	0.41
1:D:3297:THR:HG22	1:D:3298:ASP:N	2.31	0.41
1:D:3386:HIS:CA	3:P:3842:MET:HA	2.47	0.41
1:A:360:LEU:CD2	4:E:401:ASP:CG	2.60	0.41
6:K:2136:VAL:O	6:K:2136:VAL:HG13	2.21	0.41
5:T:3902:LEU:HD21	6:L:3139:LYS:HZ3	1.76	0.41
2:M:674:ASP:HB3	2:M:729:VAL:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1669:VAL:HA	2:N:1737:TYR:HA	2.01	0.41
3:P:3543:ASP:OD2	3:P:3655:THR:OG1	2.38	0.41
1:D:3057:SER:C	3:P:3742:VAL:O	2.60	0.41
3:P:3639:GLU:CG	3:P:3791:HIS:CD2	3.03	0.41
5:S:2900:TYR:O	5:S:2902:LEU:CD2	2.69	0.41
5:S:2914:LEU:O	5:S:2916:CYS:N	2.54	0.41
5:T:3913:SER:OG	5:T:3917:CYS:CB	2.67	0.41
1:A:284:GLU:HA	1:A:287:PHE:HD2	1.86	0.41
1:A:41:THR:HG21	1:B:1125:HIS:CB	2.51	0.41
1:D:3386:HIS:C	3:P:3842:MET:HA	2.41	0.41
1:D:3389:ASN:O	3:P:3839:TRP:CE3	2.73	0.41
4:H:3434:VAL:HG12	4:H:3438:ARG:NE	2.36	0.41
6:K:2143:PRO:HG2	6:K:2219:SER:HB3	2.03	0.41
6:K:2182:SER:OG	6:K:2230:VAL:HG23	2.21	0.41
3:P:3507:ASN:ND2	3:P:3562:HIS:H	2.19	0.41
5:R:1872:SER:O	5:R:1876:PHE:HD2	1.97	0.41
1:A:31:MET:HA	1:A:135:VAL:HG22	2.02	0.41
1:B:1237:PRO:CG	2:O:2788:TYR:CE2	3.05	0.41
1:A:362:SER:H	4:E:402:ILE:HD12	0.60	0.41
4:G:2419:LEU:O	4:G:2423:VAL:HG23	2.21	0.41
6:K:2253:LYS:HG3	6:K:2254:ASP:H	1.84	0.41
3:P:3672:PRO:HG2	3:P:3731:ASN:O	2.21	0.41
3:P:3669:VAL:HA	3:P:3737:TYR:HA	2.02	0.41
5:S:2917:CYS:N	5:S:2918:VAL:HB	2.29	0.41
1:A:362:SER:O	4:E:402:ILE:HD11	1.95	0.40
4:E:434:VAL:HG12	4:E:438:ARG:NE	2.36	0.40
4:E:439:HIS:CE1	6:I:165:LYS:CG	3.01	0.40
4:H:3430:VAL:O	4:H:3434:VAL:HG23	2.21	0.40
6:I:136:VAL:HG13	6:I:136:VAL:O	2.21	0.40
6:I:185:THR:CG2	6:I:229:ARG:HB3	2.46	0.40
5:S:2910:PHE:HE1	5:S:2921:THR:O	2.04	0.40
5:S:2911:LEU:HG	5:S:2913:SER:HB2	2.01	0.40
4:F:1430:VAL:O	4:F:1434:VAL:HG23	2.21	0.40
4:G:2430:VAL:O	4:G:2434:VAL:HG23	2.21	0.40
4:H:3396:THR:O	4:H:3397:LEU:HD23	2.20	0.40
2:O:2710:LEU:HD11	2:O:2730:THR:HG21	2.03	0.40
1:C:2386:HIS:O	2:O:2841:GLN:CA	2.68	0.40
5:Q:901:GLU:O	5:Q:902:LEU:CD2	2.69	0.40
4:F:1434:VAL:HG12	4:F:1438:ARG:NE	2.36	0.40
4:G:2400:GLN:H	4:G:2400:GLN:HG2	1.61	0.40
5:Q:846:GLY:O	5:Q:847:THR:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1299:MET:HG2	1:B:1320:TYR:HA	2.03	0.40
1:C:2039:GLU:O	1:C:2128:SER:N	2.29	0.40
5:Q:906:ALA:CB	5:Q:909:PRO:HG2	2.50	0.40
4:H:3419:LEU:O	4:H:3423:VAL:HG23	2.21	0.40
1:D:3090:GLY:O	3:P:3678:ARG:N	2.54	0.40
5:Q:849:HIS:CE1	5:Q:855:ILE:HG12	2.36	0.40
5:R:1846:GLY:O	5:R:1847:THR:C	2.58	0.40
5:R:1907:THR:CA	5:R:1921:THR:CG2	2.82	0.40
5:S:2910:PHE:CZ	5:S:2921:THR:CB	2.87	0.40
5:T:3881:MET:O	5:T:3884:THR:OG1	2.36	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	389/393 (99%)	363 (93%)	20 (5%)	6 (2%)	13	58
1	B	387/393 (98%)	357 (92%)	22 (6%)	8 (2%)	9	51
1	C	389/393 (99%)	357 (92%)	26 (7%)	6 (2%)	13	58
1	D	391/393 (100%)	368 (94%)	19 (5%)	4 (1%)	19	65
2	M	334/336 (99%)	299 (90%)	30 (9%)	5 (2%)	13	58
2	N	334/336 (99%)	295 (88%)	29 (9%)	10 (3%)	5	44
2	O	334/336 (99%)	297 (89%)	29 (9%)	8 (2%)	7	48
3	P	334/336 (99%)	291 (87%)	36 (11%)	7 (2%)	9	51
4	E	44/46 (96%)	35 (80%)	4 (9%)	5 (11%)	0	10
4	F	42/46 (91%)	35 (83%)	3 (7%)	4 (10%)	1	15
4	G	42/46 (91%)	35 (83%)	3 (7%)	4 (10%)	1	15
4	H	44/46 (96%)	35 (80%)	5 (11%)	4 (9%)	1	16

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	Q	77/81 (95%)	41 (53%)	12 (16%)	24 (31%)	0	0
5	R	77/81 (95%)	39 (51%)	15 (20%)	23 (30%)	0	0
5	S	63/81 (78%)	38 (60%)	6 (10%)	19 (30%)	0	0
5	T	77/81 (95%)	40 (52%)	13 (17%)	24 (31%)	0	0
6	I	147/149 (99%)	131 (89%)	14 (10%)	2 (1%)	14	58
6	J	145/149 (97%)	131 (90%)	14 (10%)	0	100	100
6	K	147/149 (99%)	133 (90%)	14 (10%)	0	100	100
6	L	147/149 (99%)	133 (90%)	14 (10%)	0	100	100
All	All	3944/4020 (98%)	3453 (88%)	328 (8%)	163 (4%)	6	35

All (163) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	130	SER
1	A	273	VAL
1	A	298	ASP
1	B	1036	VAL
1	B	1273	VAL
1	B	1298	ASP
2	N	1513	ARG
2	N	1673	PRO
2	N	1732	HIS
2	N	1734	LYS
1	C	2273	VAL
2	O	2673	PRO
2	O	2841	GLN
1	D	3289	ARG
1	D	3298	ASP
4	E	395	THR
4	E	396	THR
4	E	405	THR
5	Q	844	THR
5	Q	847	THR
5	Q	851	HIS
5	Q	852	PRO
5	Q	853	HIS
5	Q	863	TYR
5	Q	864	PRO
5	Q	865	THR

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Mol	Chain	Res	Type
5	Q	866	MET
5	Q	897	ILE
5	Q	898	THR
5	Q	908	VAL
5	Q	911	LEU
5	Q	915	LEU
5	Q	922	LYS
4	F	1395	THR
4	F	1405	THR
5	R	1847	THR
5	R	1851	HIS
5	R	1852	PRO
5	R	1853	HIS
5	R	1863	TYR
5	R	1864	PRO
5	R	1865	THR
5	R	1866	MET
5	R	1897	ILE
5	R	1898	THR
5	R	1908	VAL
5	R	1911	LEU
5	R	1915	LEU
5	R	1922	LYS
4	G	2405	THR
5	S	2851	HIS
5	S	2852	PRO
5	S	2863	TYR
5	S	2864	PRO
5	S	2865	THR
5	S	2866	MET
5	S	2897	ILE
5	S	2898	THR
5	S	2902	LEU
5	S	2903	THR
5	S	2908	VAL
4	H	3405	THR
5	T	3844	THR
5	T	3847	THR
5	T	3851	HIS
5	T	3852	PRO
5	T	3853	HIS
5	T	3863	TYR

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Mol	Chain	Res	Type
5	T	3864	PRO
5	T	3865	THR
5	T	3866	MET
5	T	3897	ILE
5	T	3898	THR
5	T	3908	VAL
5	T	3911	LEU
5	T	3915	LEU
5	T	3922	LYS
6	I	183	LYS
6	I	184	PHE
1	A	270	ASN
2	M	732	HIS
1	B	1291	VAL
2	N	1514	PRO
2	N	1769	PRO
1	C	2036	VAL
1	C	2298	ASP
2	O	2731	ASN
2	O	2738	ASN
1	D	3270	ASN
4	E	399	VAL
4	E	402	ILE
5	Q	906	ALA
5	Q	917	CYS
4	F	1399	VAL
5	R	1906	ALA
5	R	1917	CYS
4	G	2395	THR
4	G	2399	VAL
5	S	2844	THR
5	S	2853	HIS
5	S	2854	GLU
4	H	3399	VAL
4	H	3402	ILE
5	T	3906	ALA
5	T	3917	CYS
1	A	294	PRO
2	M	685	SER
1	B	1040	PRO
1	B	1294	PRO
2	N	1685	SER

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Mol	Chain	Res	Type
1	C	2040	PRO
1	C	2270	ASN
2	O	2685	SER
2	O	2732	HIS
2	O	2769	PRO
3	P	3514	PRO
3	P	3633	PRO
3	P	3685	SER
3	P	3738	ASN
5	Q	907	THR
5	Q	914	LEU
5	Q	916	CYS
5	Q	920	THR
5	R	1907	THR
5	R	1914	LEU
5	R	1916	CYS
5	R	1920	THR
4	G	2396	THR
5	S	2899	PRO
5	S	2905	GLY
5	S	2906	ALA
4	H	3396	THR
5	T	3907	THR
5	T	3914	LEU
5	T	3916	CYS
5	T	3920	THR
1	A	181	LYS
2	M	675	THR
1	B	1181	LYS
1	C	2181	LYS
1	D	3181	LYS
3	P	3769	PRO
5	Q	901	GLU
4	F	1396	THR
5	R	1901	GLU
5	S	2907	THR
5	T	3901	GLU
2	M	672	PRO
2	M	728	ALA
1	B	1270	ASN
2	N	1835	PRO
5	Q	903	THR

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Mol	Chain	Res	Type
5	R	1903	THR
5	T	3903	THR
2	N	1729	VAL
2	N	1733	LYS
3	P	3673	PRO
5	S	2904	PRO
3	P	3634	PRO
5	Q	905	GLY
5	R	1905	GLY
5	T	3905	GLY
2	O	2672	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	329/329 (100%)	312 (95%)	17 (5%)	29	67
1	B	329/329 (100%)	313 (95%)	16 (5%)	31	68
1	C	329/329 (100%)	313 (95%)	16 (5%)	31	68
1	D	329/329 (100%)	314 (95%)	15 (5%)	33	69
2	M	298/298 (100%)	284 (95%)	14 (5%)	32	69
2	N	298/298 (100%)	285 (96%)	13 (4%)	35	70
2	O	298/298 (100%)	284 (95%)	14 (5%)	32	69
3	P	298/298 (100%)	282 (95%)	16 (5%)	27	66
4	E	38/38 (100%)	35 (92%)	3 (8%)	15	53
4	F	38/38 (100%)	34 (90%)	4 (10%)	8	39
4	G	38/38 (100%)	34 (90%)	4 (10%)	8	39
4	H	38/38 (100%)	35 (92%)	3 (8%)	15	53
5	Q	70/70 (100%)	67 (96%)	3 (4%)	35	71
5	R	70/70 (100%)	67 (96%)	3 (4%)	35	71
5	S	70/70 (100%)	68 (97%)	2 (3%)	50	79

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	T	70/70 (100%)	67 (96%)	3 (4%)	35	71
6	I	118/118 (100%)	109 (92%)	9 (8%)	16	55
6	J	118/118 (100%)	109 (92%)	9 (8%)	16	55
6	K	118/118 (100%)	109 (92%)	9 (8%)	16	55
6	L	118/118 (100%)	109 (92%)	9 (8%)	16	55
All	All	3412/3412 (100%)	3230 (95%)	182 (5%)	33	66

All (182) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	55	ILE
1	A	75	ASP
1	A	89	TRP
1	A	103	LEU
1	A	132	LYS
1	A	133	LEU
1	A	134	ARG
1	A	181	LYS
1	A	203	ILE
1	A	244	LEU
1	A	267	ARG
1	A	298	ASP
1	A	327	LYS
1	A	343	GLU
1	A	350	SER
1	A	370	CYS
1	A	386	HIS
2	M	518	HIS
2	M	663	THR
2	M	671	MET
2	M	674	ASP
2	M	675	THR
2	M	692	VAL
2	M	715	LYS
2	M	720	CYS
2	M	722	VAL
2	M	731	ASN
2	M	732	HIS
2	M	735	TRP
2	M	750	ASP

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Mol	Chain	Res	Type
2	M	763	ASN
1	B	1041	THR
1	B	1042	LEU
1	B	1055	ILE
1	B	1075	ASP
1	B	1089	TRP
1	B	1103	LEU
1	B	1181	LYS
1	B	1203	ILE
1	B	1244	LEU
1	B	1267	ARG
1	B	1298	ASP
1	B	1327	LYS
1	B	1343	GLU
1	B	1350	SER
1	B	1370	CYS
1	B	1386	HIS
2	N	1512	THR
2	N	1516	LEU
2	N	1518	HIS
2	N	1663	THR
2	N	1692	VAL
2	N	1715	LYS
2	N	1720	CYS
2	N	1722	VAL
2	N	1731	ASN
2	N	1735	TRP
2	N	1750	ASP
2	N	1763	ASN
2	N	1841	GLN
1	C	2041	THR
1	C	2042	LEU
1	C	2055	ILE
1	C	2075	ASP
1	C	2089	TRP
1	C	2103	LEU
1	C	2181	LYS
1	C	2203	ILE
1	C	2244	LEU
1	C	2267	ARG
1	C	2295	SER
1	C	2327	LYS

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Mol	Chain	Res	Type
1	C	2343	GLU
1	C	2350	SER
1	C	2370	CYS
1	C	2386	HIS
2	O	2512	THR
2	O	2516	LEU
2	O	2518	HIS
2	O	2663	THR
2	O	2674	ASP
2	O	2675	THR
2	O	2692	VAL
2	O	2715	LYS
2	O	2720	CYS
2	O	2722	VAL
2	O	2735	TRP
2	O	2750	ASP
2	O	2763	ASN
2	O	2842	LEU
1	D	3055	ILE
1	D	3075	ASP
1	D	3089	TRP
1	D	3103	LEU
1	D	3167	SER
1	D	3181	LYS
1	D	3203	ILE
1	D	3244	LEU
1	D	3267	ARG
1	D	3298	ASP
1	D	3327	LYS
1	D	3343	GLU
1	D	3350	SER
1	D	3370	CYS
1	D	3386	HIS
3	P	3515	TYR
3	P	3516	LEU
3	P	3663	THR
3	P	3671	MET
3	P	3674	ASP
3	P	3692	VAL
3	P	3715	LYS
3	P	3720	CYS
3	P	3722	VAL

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Mol	Chain	Res	Type
3	P	3731	ASN
3	P	3732	HIS
3	P	3735	TRP
3	P	3750	ASP
3	P	3763	ASN
3	P	3841	GLN
3	P	3842	MET
4	E	399	VAL
4	E	400	GLN
4	E	402	ILE
5	Q	898	THR
5	Q	900	TYR
5	Q	901	GLU
4	F	1394	HIS
4	F	1399	VAL
4	F	1400	GLN
4	F	1402	ILE
5	R	1898	THR
5	R	1900	TYR
5	R	1901	GLU
4	G	2394	HIS
4	G	2399	VAL
4	G	2400	GLN
4	G	2402	ILE
5	S	2898	THR
5	S	2900	TYR
4	H	3399	VAL
4	H	3400	GLN
4	H	3402	ILE
5	T	3898	THR
5	T	3900	TYR
5	T	3901	GLU
6	I	119	CYS
6	I	155	LEU
6	I	170	CYS
6	I	172	GLN
6	I	185	THR
6	I	195	TRP
6	I	229	ARG
6	I	252	ASN
6	I	253	LYS
6	J	1119	CYS

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Mol	Chain	Res	Type
6	J	1155	LEU
6	J	1170	CYS
6	J	1172	GLN
6	J	1185	THR
6	J	1195	TRP
6	J	1229	ARG
6	J	1252	ASN
6	J	1253	LYS
6	K	2119	CYS
6	K	2155	LEU
6	K	2170	CYS
6	K	2172	GLN
6	K	2185	THR
6	K	2195	TRP
6	K	2229	ARG
6	K	2252	ASN
6	K	2253	LYS
6	L	3119	CYS
6	L	3155	LEU
6	L	3170	CYS
6	L	3172	GLN
6	L	3185	THR
6	L	3195	TRP
6	L	3229	ARG
6	L	3252	ASN
6	L	3253	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (62) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	373	GLN
2	M	507	ASN
2	M	658	GLN
2	M	693	ASN
2	M	726	HIS
2	M	732	HIS
2	M	782	GLN
2	M	791	HIS
1	B	1152	HIS
1	B	1275	ASN
1	B	1373	GLN
2	N	1529	HIS

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Mol	Chain	Res	Type
2	N	1562	HIS
2	N	1573	HIS
2	N	1599	HIS
2	N	1646	GLN
2	N	1647	HIS
2	N	1693	ASN
2	N	1695	GLN
2	N	1726	HIS
2	N	1736	GLN
2	N	1745	ASN
2	N	1773	ASN
2	N	1782	GLN
2	N	1841	GLN
1	C	2373	GLN
2	O	2507	ASN
2	O	2518	HIS
2	O	2693	ASN
2	O	2702	ASN
2	O	2736	GLN
2	O	2745	ASN
2	O	2782	GLN
2	O	2832	ASN
1	D	3275	ASN
1	D	3373	GLN
3	P	3562	HIS
3	P	3573	HIS
3	P	3646	GLN
3	P	3658	GLN
3	P	3693	ASN
3	P	3731	ASN
3	P	3732	HIS
3	P	3736	GLN
3	P	3745	ASN
3	P	3782	GLN
5	Q	849	HIS
4	F	1394	HIS
4	F	1439	HIS
5	R	1851	HIS
4	G	2394	HIS
4	G	2439	HIS
5	S	2849	HIS
4	H	3394	HIS

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Mol	Chain	Res	Type
6	I	239	ASN
6	I	252	ASN
6	J	1239	ASN
6	J	1252	ASN
6	K	2239	ASN
6	K	2252	ASN
6	L	3239	ASN
6	L	3252	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.