Full wwPDB EM Validation Report ⓘ

Oct 29, 2024 – 11:20 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 initial model	:	3N43

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

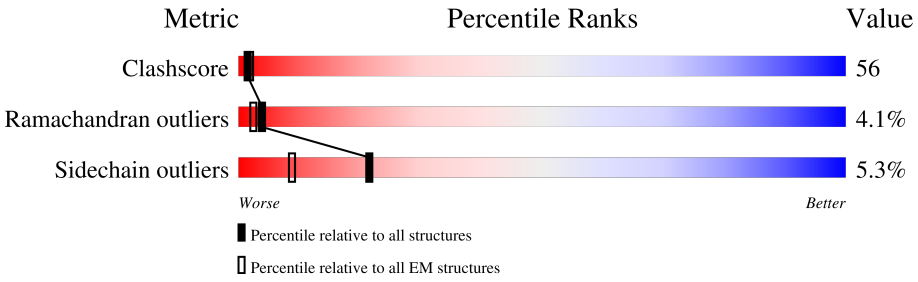
EMDB validation analysis	:	0.0.1.dev113
MolProbity	:	4.02b-467
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 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	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	393	15% 78% 19% ·
1	B	393	11% 80% 17% ·
1	C	393	11% 79% 18% ·
1	D	393	15% 80% 17% ·
2	M	336	11% 72% 26% ··
2	N	336	12% 65% 31% ·
2	O	336	12% 71% 25% ·
3	P	336	11% 67% 29% ·

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Mol	Chain	Length	Quality of chain
4	E	46	22% 35% 52% 9%
4	F	46	33% 37% 48% 13%
4	G	46	30% 37% 48% 13%
4	H	46	15% 35% 54% 7%
5	Q	81	25% 11% 58% 23% 7%
5	R	81	23% 11% 58% 23% 7%
5	S	81	27% 15% 57% 21% 7%
5	T	81	22% 12% 57% 23% 7%
6	I	149	19% 68% 26% 5%
6	J	149	22% 62% 34%
6	K	149	26% 66% 30%
6	L	149	23% 71% 25%

2 Entry composition (i)

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.

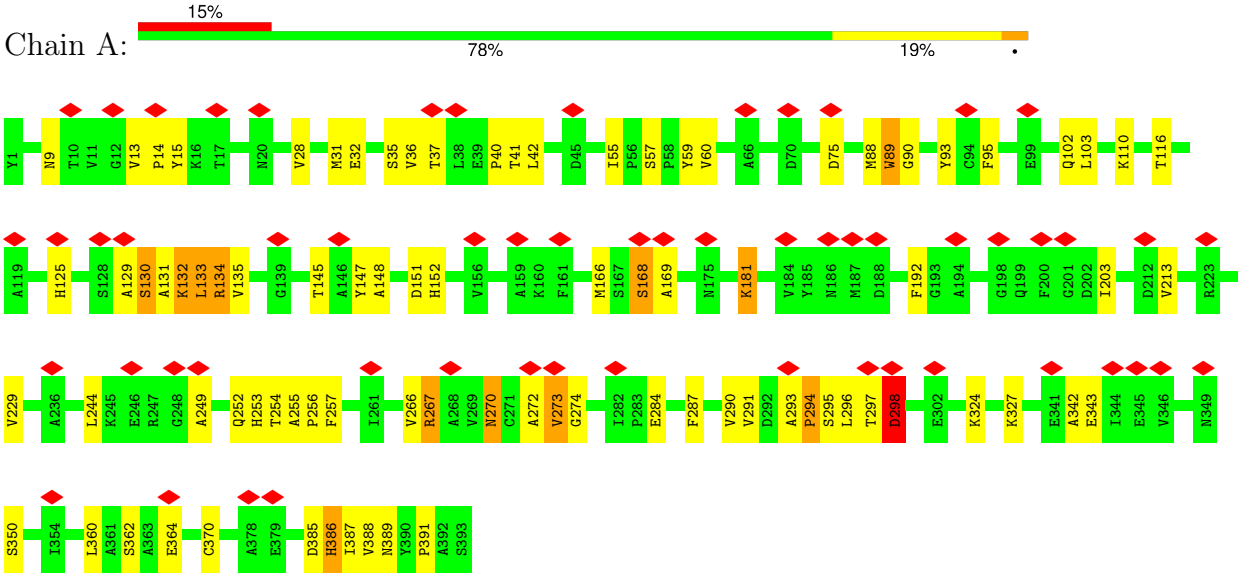
Mol	Chain	Residues	Atoms					AltConf	Trace
6	I	149	Total	C	N	O	S	0	0
			1141	723	201	211	6		
6	J	149	Total	C	N	O	S	0	0
			1141	723	201	211	6		
6	K	149	Total	C	N	O	S	0	0
			1141	723	201	211	6		
6	L	149	Total	C	N	O	S	0	0
			1141	723	201	211	6		

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

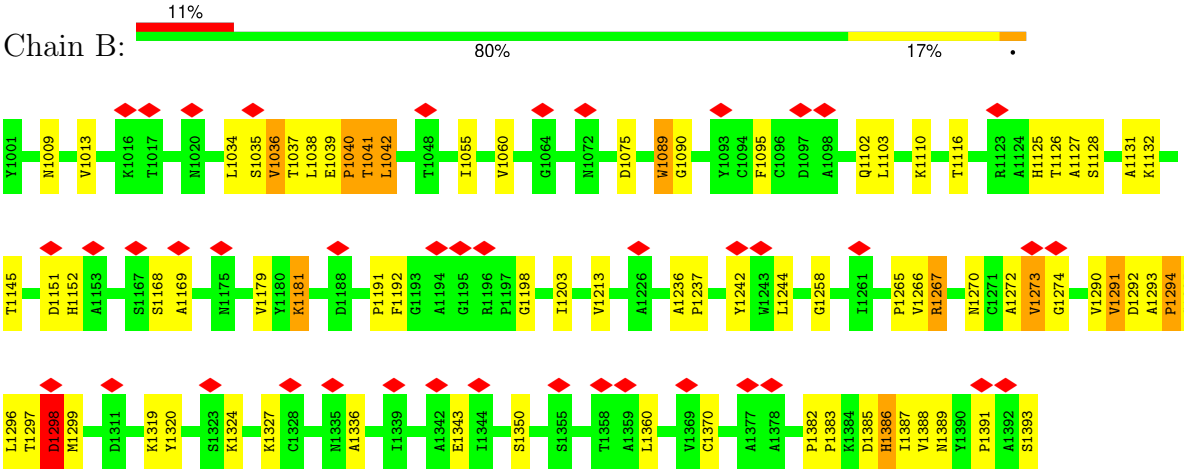
• Molecule 1: Glycoprotein E1

Chain A:



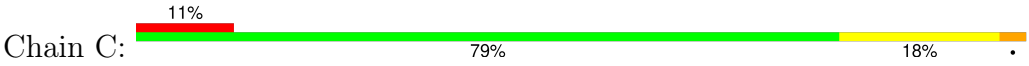
• Molecule 1: Glycoprotein E1

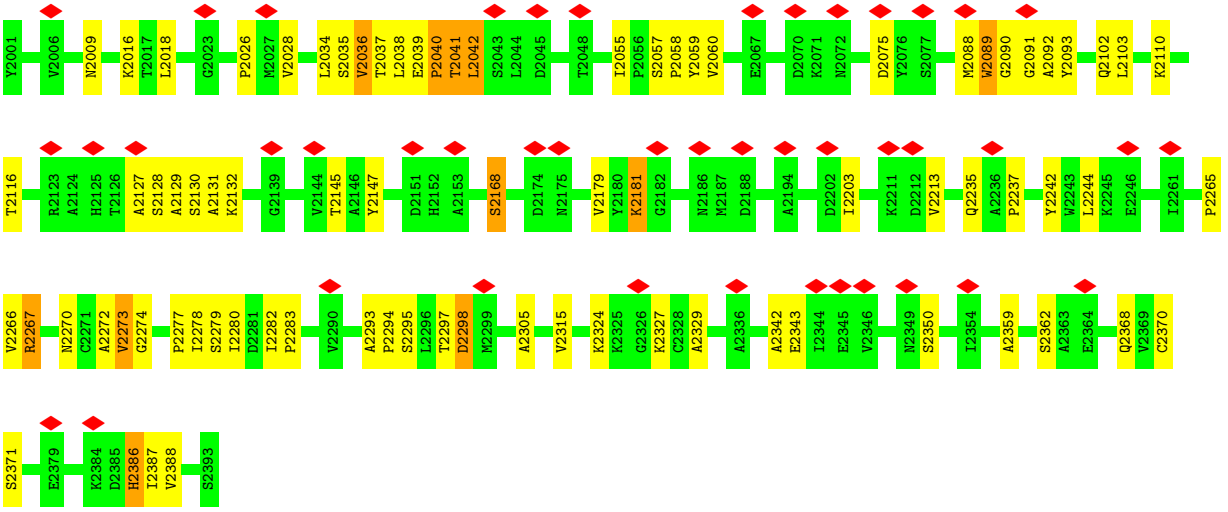
Chain B:



• Molecule 1: Glycoprotein E1

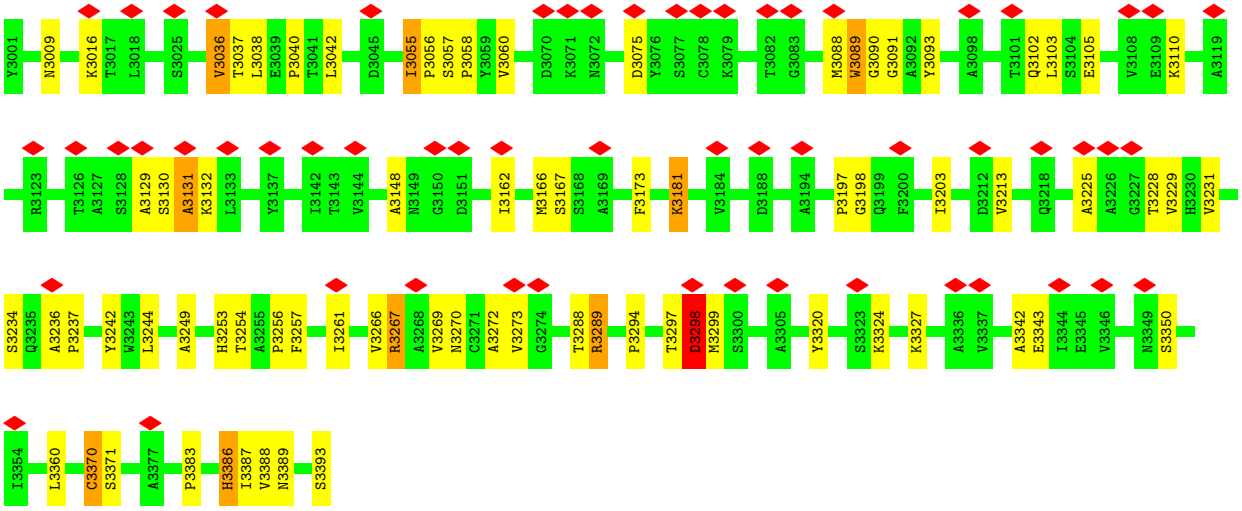
Chain C:





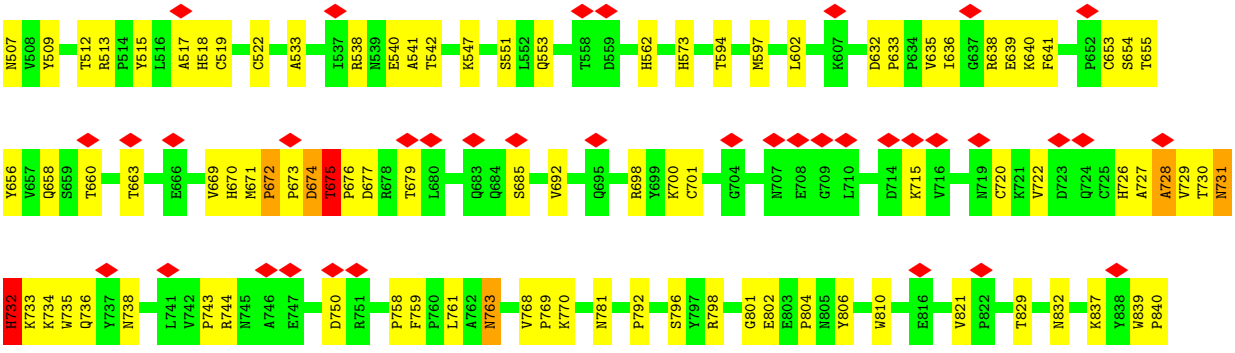
• Molecule 1: Glycoprotein E1

Chain D:

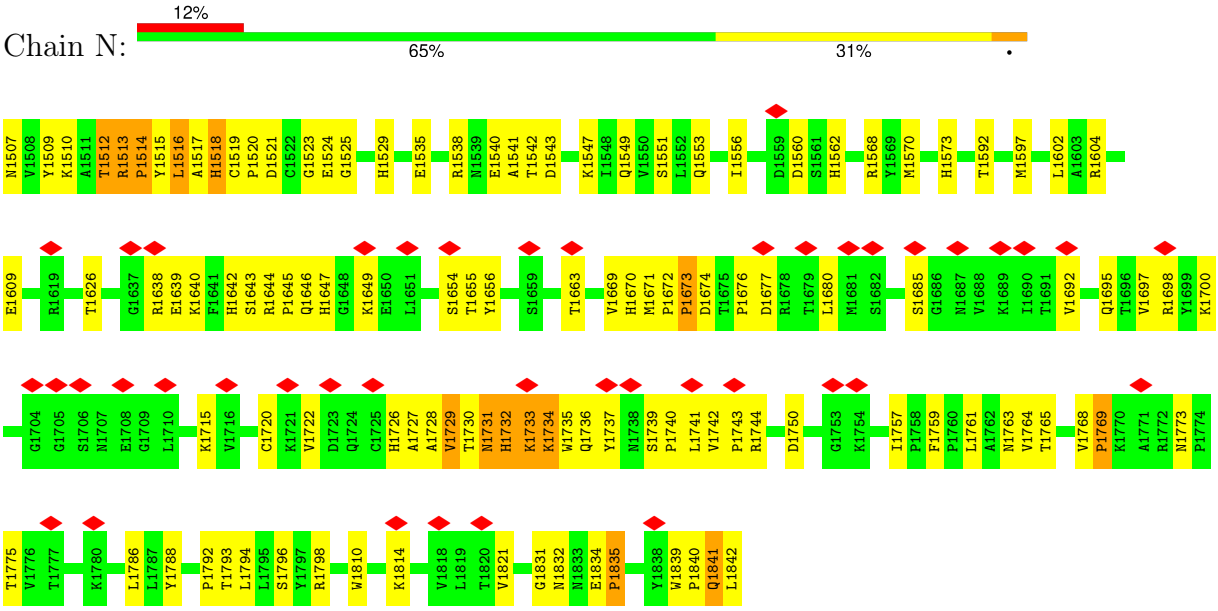


• Molecule 2: Glycoprotein E2

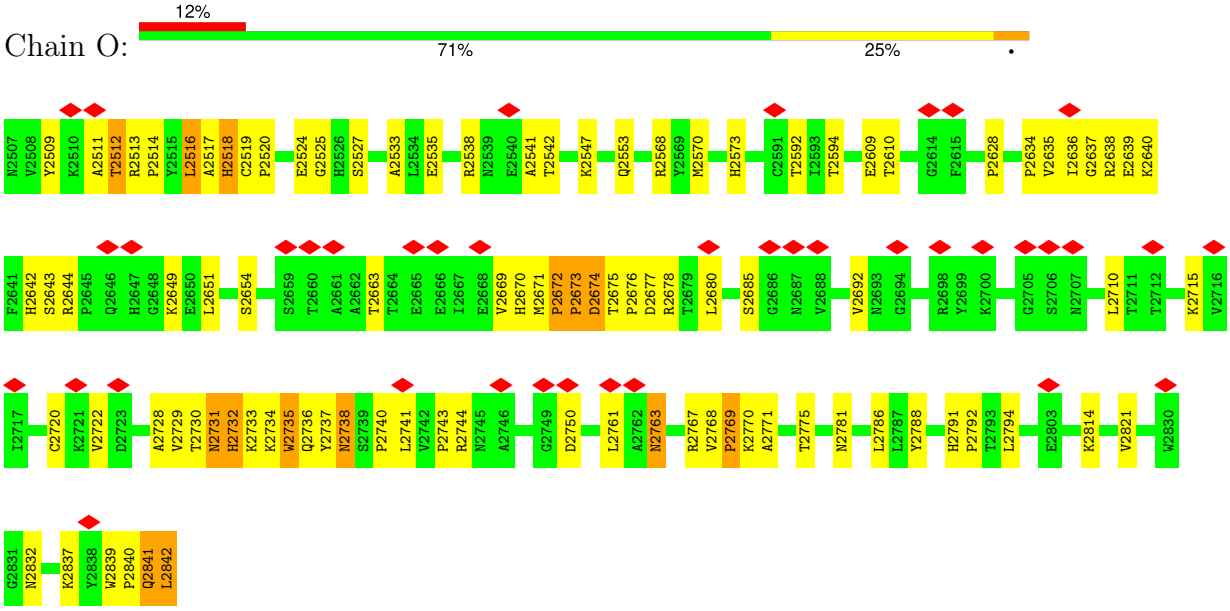
Chain M:



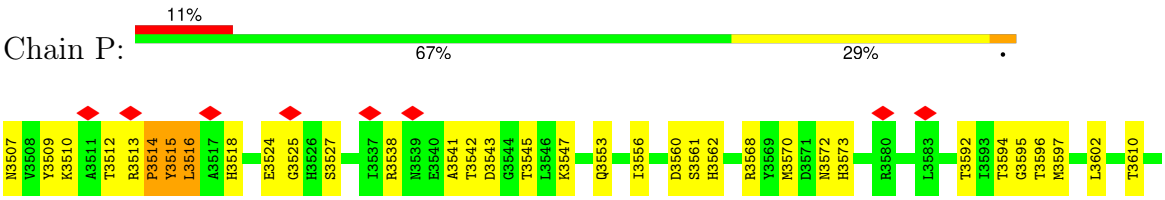
• Molecule 2: Glycoprotein E2

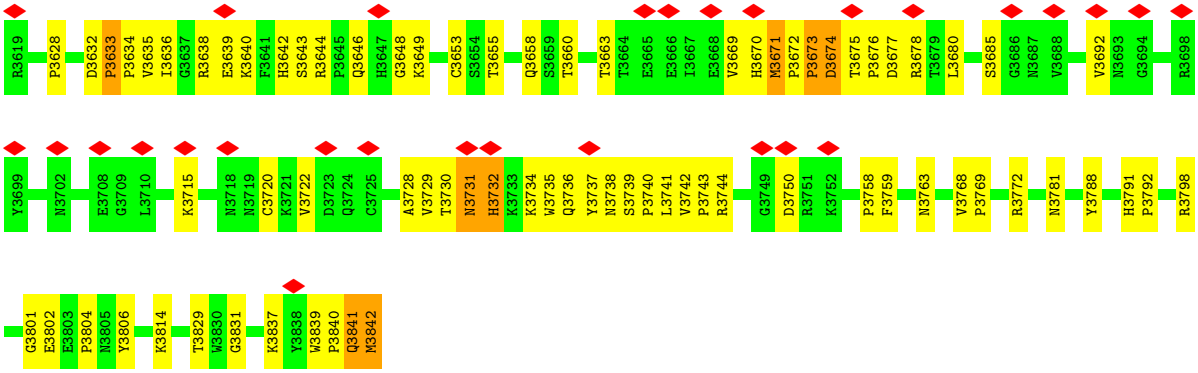


• Molecule 2: Glycoprotein E2

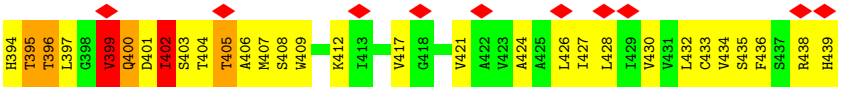


• Molecule 3: Glycoprotein E2

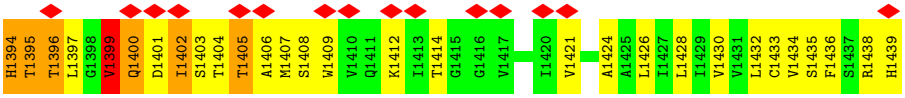




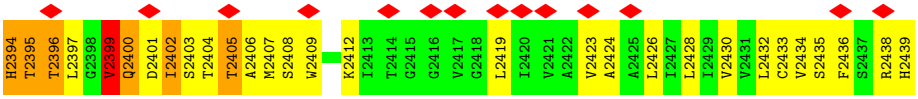
• Molecule 4: Glycoprotein E1



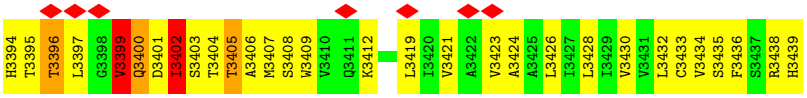
• Molecule 4: Glycoprotein E1



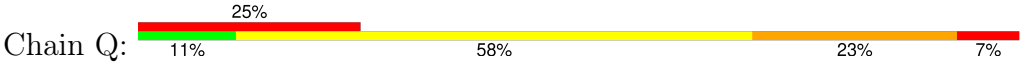
• Molecule 4: Glycoprotein E1

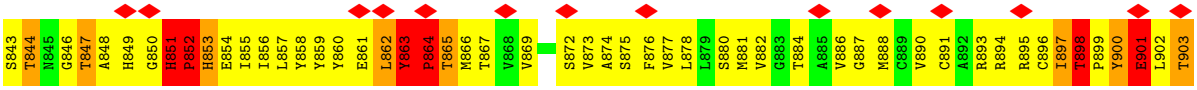


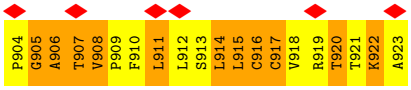
• Molecule 4: Glycoprotein E1



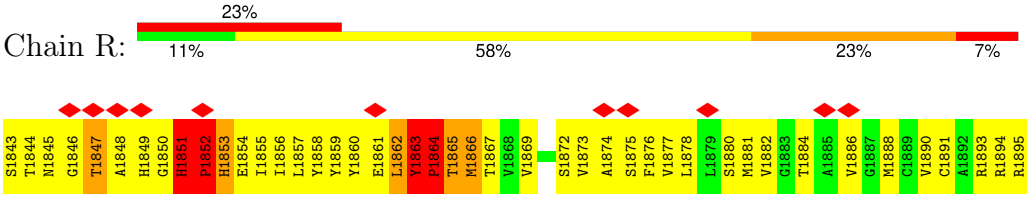
• Molecule 5: Glycoprotein E2



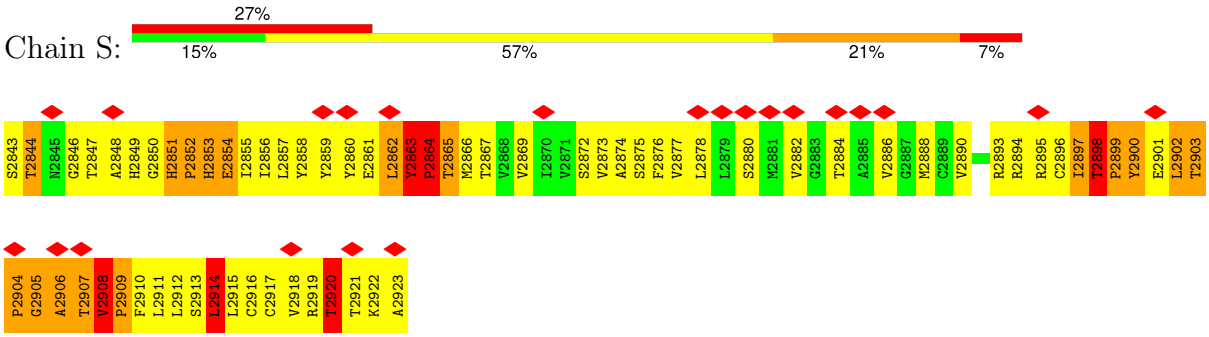




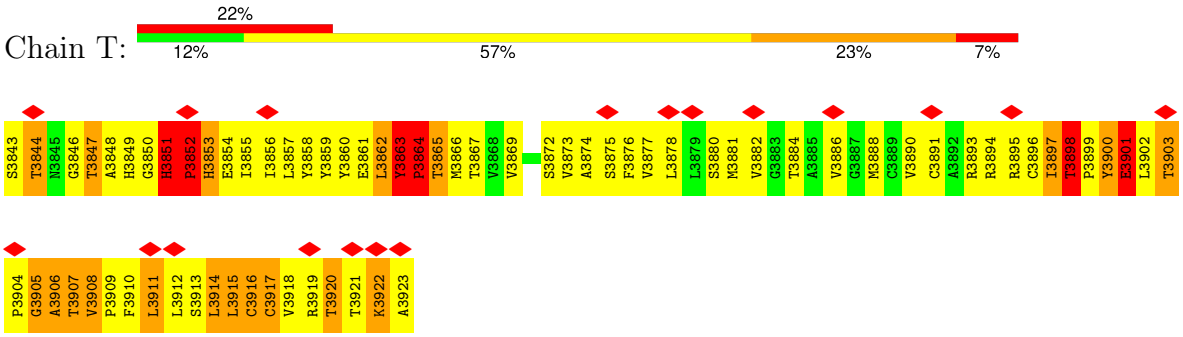
• Molecule 5: Glycoprotein E2



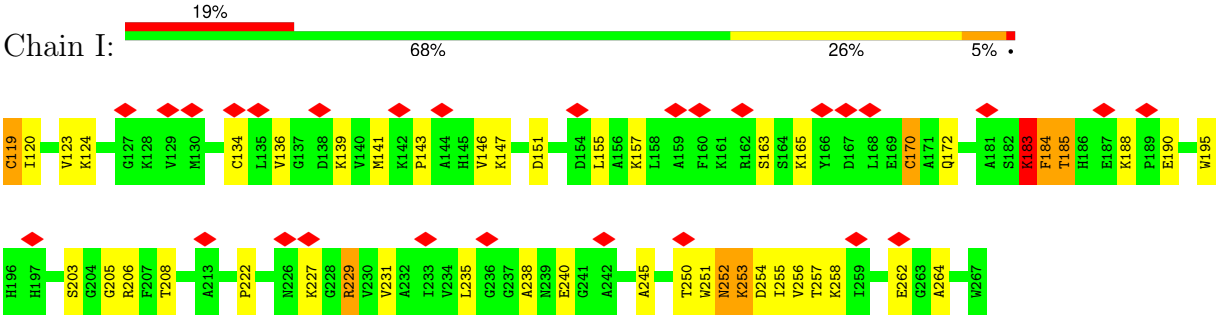
• Molecule 5: Glycoprotein E2



• Molecule 5: Glycoprotein E2

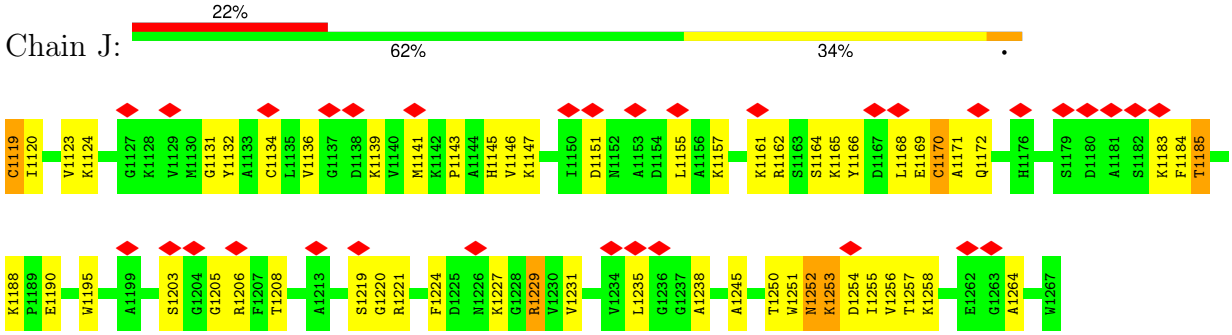


• Molecule 6: Capsid protein



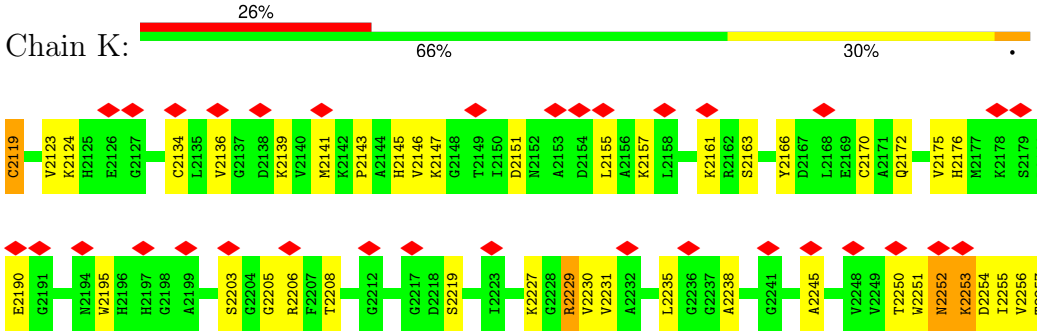
• Molecule 6: Capsid protein

Chain J:



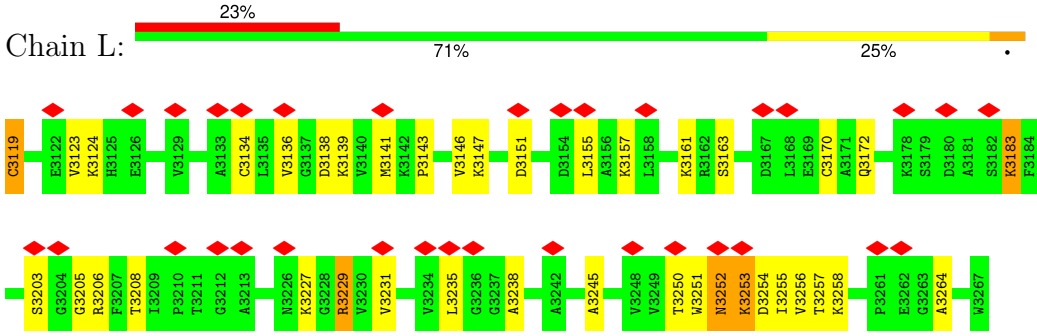
• Molecule 6: Capsid protein

Chain K:



• Molecule 6: Capsid protein

Chain L:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, I	Depositor
Number of particles used	36236	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	each particle	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	25	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	59000	Depositor
Image detector	GENERIC FILM	Depositor
Maximum map value	12.826	Depositor
Minimum map value	-0.641	Depositor
Average map value	0.305	Depositor
Map value standard deviation	0.948	Depositor
Recommended contour level	1.1	Depositor
Map size (Å)	719.28, 719.28, 359.64	wwPDB
Map dimensions	648, 648, 324	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.11, 1.11, 1.11	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.57	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(^{o})	Ideal(^{o})
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(^{o})	Ideal(^{o})
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(^{o})	Ideal(^{o})
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
1:A:291:VAL:CG2	1:C:2315:VAL:CG2	1.79	1.57
3:P:3509:TYR:CG	3:P:3556:ILE:HG12	1.09	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:E:402:ILE:CG2	4:E:403:SER:HA	1.38	1.53
4:H:3402:ILE:CG2	4:H:3403: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
3:P:3510:LYS:CA	3:P:3560:ASP:HB3	1.36	1.51
5:S:2906:ALA:HB1	5:S:2909:PRO:CD	1.38	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
2:N:1602:LEU:HD11	2:N:1759:PHE:CG	1.52	1.41
1:C:2242:TYR:CD1	3:P:3814:LYS:NZ	1.84	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:1906:ALA:HB2	5:R:1909:PRO:CD	1.50	1.41
5:R:1918:VAL:CG1	5:R:1919:ARG:HA	1.48	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
2:M:639:GLU:HB2	2:M:832:ASN:ND2	1.22	1.39
5:R:1849:HIS:HB3	5:R:1850:GLY:CA	1.52	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
1:A:362:SER:O	4:E:402:ILE:CD1	1.70	1.38
2:O:2527:SER:HB2	3:P:3646:GLN:NE2	1.38	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:1602:LEU:CD1	2:N:1759:PHE:CD2	2.06	1.37
2:N:1638:ARG:NE	2:N:1794:LEU:HD23	1.04	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
1:D:3088:MET:CB	3:P:3676:PRO:HD2	1.54	1.36
4:E:399:VAL:CB	4:E:400:GLN:HA	1.50	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
2:N:1638:ARG:CD	2:N:1794:LEU:HD23	1.54	1.35
4:F:1406:ALA:HB3	5:R:1849:HIS:CD2	1.60	1.35
1:A:291:VAL:CG2	1:C:2315:VAL:HG21	0.89	1.35
2:N:1638:ARG:CG	2:N:1794:LEU:CD2	2.03	1.35
4:F:1399:VAL:HG12	4:F:1400:GLN:C	1.46	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:918:VAL:HG13	5:Q:919:ARG:CA	1.56	1.35
5:T:3902:LEU:CD1	6:L:3138:ASP:OD1	1.75	1.35
2:N:1602:LEU:CD1	2:N:1759:PHE:CE2	2.09	1.34
2:O:2841:GLN:CD	2:O:2842:LEU:HD23	1.46	1.34
5:R:1898:THR:CG2	6:J:1165:LYS:HD2	1.57	1.34
5:Q:849:HIS:HB3	5:Q:850:GLY:CA	1.49	1.34
5:S:2900:TYR:O	6:K:2161:LYS:HD2	1.18	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:2847:THR:HB	5:S:2854:GLU:CD	1.49	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: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
2:M:639:GLU:OE2	2:M:832:ASN:HB2	1.29	1.30
5:R:1902:LEU:CD1	6:J:1171:ALA:N	1.93	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)
3:P:3510:LYS:CA	3:P:3560:ASP:CB	1.97	1.30
5:T:3862:LEU:C	5:T:3863:TYR:N	1.85	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
2:N:1535:GLU:OE2	2:N:1741:LEU:HD12	1.24	1.29
5:S:2911:LEU:CG	5:S:2913:SER:OG	1.81	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
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:E:402:ILE:CB	4:E:403:SER:HA	1.60	1.28
2:O:2639:GLU:HA	2:O:2791:HIS:NE2	1.47	1.27
4:H:3399:VAL:CB	4:H:3400:GLN:HA	1.50	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:2910:PHE:O	5:S:2911:LEU:HG	1.30	1.27
5:S:2915:LEU:C	5:S:2916:CYS:CB	1.97	1.27
5:T:3849:HIS:CB	5:T:3850:GLY:HA2	1.61	1.27
1:A:168:SER:C	1:A:169:ALA:CA	1.92	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
4:E:432:LEU:HD11	5:Q:894:ARG:NE	1.47	1.27
4:F:1421:VAL:CG2	5:R:1884:THR:HB	1.64	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
1:A:291:VAL:HG21	1:C:2315:VAL:CG2	1.52	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:362:SER:C	4:E:402:ILE:HD13	1.53	1.26
1:A:387:ILE:HD11	2:M:781:ASN:OD1	1.35	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: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)
2:O:2527:SER:CB	3:P:3646:GLN:CD	1.93	1.25
5:S:2903:THR:CB	5:S:2904:PRO:HD2	1.62	1.25
2:N:1647:HIS:CE1	1:D:3225:ALA:HB1	1.72	1.25
1:C:2387:ILE:HA	2:O:2841:GLN:N	1.47	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
3:P:3509:TYR:HB3	3:P:3556:ILE:CG2	1.67	1.25
4:H:3402:ILE:CB	4:H:3403:SER:HA	1.60	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
3:P:3509:TYR:CD2	3:P:3556:ILE:HG12	1.70	1.23
4:H:3421:VAL:CG2	5:T:3884:THR:HB	1.65	1.23
2:N:1638:ARG:CG	2:N:1794:LEU:HD22	1.63	1.23
2:M:673:PRO:HD2	2:M:736:GLN:NE2	0.91	1.23
2:O:2573:HIS:CE1	2:O:2729:VAL:CG2	2.21	1.23
1:D:3058:PRO:HD3	3:P:3740:PRO:O	1.29	1.23
5:S:2901:GLU:HA	5:S:2902:LEU:CB	1.64	1.23
1:C:2116:THR:CG2	2:O:2763:ASN:ND2	2.03	1.22
2:O:2527:SER:HB3	3:P:3646:GLN:CG	1.44	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
2:N:1672:PRO:HB2	2:N:1731:ASN:OD1	1.07	1.22
4:F:1421:VAL:CB	5:R:1884:THR:HB	1.68	1.22
5:R:1906:ALA:HA	5:R:1907:THR:C	1.55	1.22
4:G:2428:LEU:CD2	5:S:2895:ARG:HE	1.53	1.22
5:S:2848:ALA:HA	5:S:2858:TYR:OH	1.35	1.22
5:S:2900:TYR:O	6:K:2161:LYS:CD	1.87	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:1602:LEU:HD11	2:N:1759:PHE:CE2	1.68	1.21
2:N:1672:PRO:CB	2:N:1731:ASN:CG	2.07	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
5:S:2910:PHE:O	5:S:2918:VAL:O	1.59	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
2:N:1644:ARG:NH1	3:P:3527:SER:CB	2.03	1.21
5:R:1902:LEU:HD11	6:J:1171:ALA:N	1.48	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
2:N:1639:GLU:HA	2:N:1810:TRP:CZ3	1.71	1.20
3:P:3542:THR:HB	3:P:3636:ILE:HD11	1.24	1.20
5:T:3902:LEU:HD13	6:L:3138:ASP:OD1	1.04	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
2:O:2841:GLN:OE1	2:O:2842:LEU:HD23	1.45	1.17
5:Q:906:ALA:HA	5:Q:907:THR:C	1.55	1.17
2:M:672:PRO:HB2	2:M:673:PRO:HD2	1.27	1.17
5:S:2856:ILE:O	5:S:2859:TYR:CD2	1.95	1.17
4:H:3399:VAL:HG12	4:H:3401:ASP:N	1.59	1.17
5:T:3922:LYS:HA	5:T:3923:ALA:C	1.54	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
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:1908:VAL:CG1	5:R:1909:PRO:HD3	1.74	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
2:N:1788:TYR:OH	1:D:3242:TYR:HB2	1.44	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
5:R:1898:THR:HG23	6:J:1165:LYS:CE	1.75	1.16
2:N:1643:SER:CB	3:P:3628:PRO:HD3	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
4:E:399:VAL:HB	4:E:400:GLN:CA	1.75	1.16
5:S:2907:THR:O	5:S:2909:PRO:CG	1.93	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
4:E:399:VAL:HG12	4:E:401:ASP:N	1.58	1.15
5:T:3900:TYR:CD1	6:L:3161:LYS:HD3	1.80	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
1:A:256:PRO:CB	2:M:802:GLU:O	1.93	1.15
2:O:2527:SER:OG	3:P:3646:GLN:CG	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
1:A:192:PHE:CE2	1:B:1152:HIS:CD2	2.36	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
5:T:3900:TYR:CE1	6:L:3161:LYS:HD3	1.81	1.14
2:N:1602:LEU:HD12	2:N:1759:PHE:CZ	1.82	1.13
2:N:1647:HIS:CG	1:D:3225:ALA:CB	2.28	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)
1:D:3055:ILE:HG12	3:P:3740:PRO:CG	1.78	1.13
4:H:3399:VAL:HB	4:H:3400:GLN:CA	1.75	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:849:HIS:HB3	5:Q:850:GLY:HA2	1.21	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
2:N:1513:ARG:H	2:N:1553:GLN:NE2	1.42	1.12
1:C:2362:SER:O	4:G:2402:ILE:CD1	1.98	1.12
3:P:3513:ARG:HH12	3:P:3731:ASN:ND2	1.37	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
2:N:1535:GLU:CD	2:N:1741:LEU:CD1	2.19	1.11
3:P:3509:TYR:CD2	3:P:3556:ILE:CG1	2.29	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:A:360:LEU:CD2	4:E:401:ASP:HB3	1.79	1.11
1:D:3055:ILE:HG12	3:P:3740:PRO:HG3	1.17	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
5:S:2912:LEU:CA	5:S:2913:SER:HB3	1.81	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:13:VAL:HG12	4:E:394:HIS:CE1	1.87	1.10
1:A:386:HIS:O	2:M:842:LEU:HA	1.41	1.10
2:N:1642:HIS:HB2	3:P:3628:PRO:HB3	1.19	1.10
1:C:2018:LEU:CD2	1:C:2368:GLN:HE22	1.64	1.10
3:P:3510:LYS:O	3:P:3560:ASP:OD2	1.65	1.10
4:G:2399:VAL:HB	4:G:2400:GLN:CA	1.76	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1543:ASP:CG	2:N:1655:THR:OG1	1.89	1.10
4:E:432:LEU:HD21	5:Q:894:ARG:HG2	1.29	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:386:HIS:O	2:M:842:LEU:CA	1.92	1.10
1:A:387:ILE:CD1	2:M:840:PRO:HB2	1.53	1.10
2:N:1514:PRO:CD	2:N:1568:ARG:HE	1.64	1.10
2:N:1788:TYR:CG	1:D:3237:PRO:HG2	1.87	1.10
3:P:3510:LYS:N	3:P:3560:ASP:HB3	1.67	1.10
3:P:3597:MET:HB3	3:P:3758:PRO:HG3	1.32	1.10
4:E:439:HIS:NE2	6:I:165:LYS:HD3	1.60	1.10
4:G:2428:LEU:HD21	5:S:2895:ARG:CZ	1.81	1.10
2:M:639:GLU:CB	2:M:832:ASN:ND2	2.15	1.10
1:D:3393:SER:HA	4:H:3394:HIS:CD2	1.86	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
1:A:192:PHE:CE2	1:B:1152:HIS:HD2	1.70	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:D:3089:TRP:NE1	3:P:3572:ASN:HA	1.66	1.09
1:D:3393:SER:CA	4:H:3394:HIS:HB2	1.80	1.09
1:A:362:SER:HB3	4:E:402:ILE:HG23	1.26	1.09
5:R:1900:TYR:CG	6:J:1162:ARG:O	2.04	1.09
5:R:1901:GLU:HG3	6:J:1168:LEU:HB3	1.24	1.09
1:A:360:LEU:HD21	4:E:401:ASP:CG	1.73	1.09
2:N:1524:GLU:OE2	2:O:2594:THR:HG23	1.46	1.09
1:C:2018:LEU:HD21	1:C:2368:GLN:HE22	1.15	1.09
1:C:2293:ALA:O	1:C:2324:LYS:HE2	1.53	1.09
5:Q:907:THR:H	5:Q:921:THR:CG2	1.65	1.09
5:S:2916:CYS:N	5:S:2917:CYS:N	2.01	1.09
5:T:3900:TYR:CD1	6:L:3161:LYS:CD	2.35	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:F:1421:VAL:CG1	5:R:1884:THR:HB	1.83	1.07
4:G:2395:THR:O	4:G:2397:LEU:HG	1.54	1.07
5:S:2849:HIS:HB3	5:S:2850:GLY:HA2	1.10	1.07
5:S:2849:HIS:CB	5:S:2850:GLY:CA	2.30	1.07
5:S:2915:LEU:O	5:S:2916:CYS:HB2	0.91	1.07
3:P:3509:TYR:CB	3:P:3556:ILE:HG12	1.83	1.07
4:F:1409:TRP:CD1	5:R:1851:HIS:CE1	2.41	1.07
5:S:2910:PHE:CE1	5:S:2921:THR:CB	2.36	1.07
5:S:2917:CYS:HB2	5:S:2918:VAL:HB	1.34	1.07
2:N:1541:ALA:N	2:N:1656:TYR:CE2	2.13	1.07
2:N:1547:LYS:NZ	2:N:1757:ILE:CD1	2.16	1.07
2:N:1814:LYS:HD3	1:D:3242:TYR:HD1	1.12	1.07
1:D:3393:SER:HA	4:H:3394:HIS:HB2	1.31	1.07
3:P:3509:TYR:CD1	3:P:3556:ILE:CD1	2.38	1.07
5:S:2849:HIS:HE1	5:S:2855:ILE:CG1	1.63	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
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:1898:THR:HG21	6:J:1165:LYS:HD2	1.36	1.07
5:R:1902:LEU:HD11	6:J:1171:ALA:CA	1.84	1.07
2:M:672:PRO:CB	2:M:736:GLN:NE2	2.18	1.06
2:N:1647:HIS:CE1	1:D:3225:ALA:CB	2.34	1.06
1:D:3393:SER:HA	4:H:3394:HIS:CB	1.84	1.06
3:P:3509:TYR:CD1	3:P:3556:ILE:HG12	1.90	1.06
4:E:432:LEU:HG	5:Q:894:ARG:HD3	1.34	1.06
5:Q:907:THR:N	5:Q:921:THR:HG21	1.70	1.06
4:G:2428:LEU:CD2	5:S:2895:ARG:NE	2.18	1.06
2:N:1604:ARG:NE	3:P:3524:GLU:O	1.86	1.06
1:D:3089:TRP:CE2	3:P:3573:HIS:N	2.15	1.06
5:R:1902:LEU:CG	6:J:1170:CYS:HB2	1.82	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:1638:ARG:CD	2:N:1794:LEU:CD2	2.23	1.06
2:N:1647:HIS:CD2	1:D:3225:ALA:HB1	1.90	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:1639:GLU:CA	2:N:1810:TRP:HZ3	1.68	1.06
3:P:3513:ARG:NH1	3:P:3731:ASN:ND2	1.93	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
2:M:639:GLU:OE2	2:M:832:ASN:N	1.88	1.06
5:Q:908:VAL:CB	5:Q:909:PRO:CD	2.30	1.06
4:F:1428:LEU:HD12	5:R:1891:CYS:SG	1.94	1.06
5:R:1907:THR:N	5:R:1921:THR:HG21	1.70	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
1:D:3387:ILE:HD12	3:P:3781:ASN:OD1	1.52	1.05
3:P:3639:GLU:OE1	3:P:3791:HIS:NE2	1.89	1.05
5:R:1862:LEU:O	5:R:1863:TYR:N	1.87	1.05
4:G:2428:LEU:HD21	5:S:2895:ARG:NE	1.71	1.05
5:T:3907:THR:N	5:T:3921:THR:HG21	1.70	1.05
6:J:1235:LEU:HD12	6:J:1258:LYS:HE3	1.37	1.05
5:Q:901:GLU:O	5:Q:902:LEU:HG	1.55	1.05
2:N:1638:ARG:HG2	2:N:1794:LEU:HD22	1.05	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:M:639:GLU:OE2	2:M:832:ASN:CA	2.05	1.05
2:M:676:PRO:HA	2:M:728:ALA:CB	1.87	1.05
1:C:2026:PRO:CD	1:C:2371:SER:OG	2.05	1.05
3:P:3672:PRO:CG	3:P:3731:ASN:HB2	1.86	1.05
4:F:1424:ALA:HB1	5:R:1888:MET:HE1	1.11	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: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
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
6:K:2235:LEU:HD12	6:K:2258:LYS:HE3	1.37	1.05
2:N:1644:ARG:NH1	3:P:3527:SER:HB3	1.70	1.04
1:C:2091:GLY:HA3	2:O:2678:ARG:NE	1.71	1.04
2:O:2638:ARG:N	2:O:2832:ASN:ND2	2.05	1.04
4:F:1399:VAL:CG1	4:F:1400:GLN:HA	1.87	1.04
2:M:673:PRO:CD	2:M:736:GLN:CD	2.25	1.04
5:Q:856:ILE:O	5:Q:859:TYR:CD2	2.09	1.04
5:Q:856:ILE:CA	5:Q:859:TYR:CE2	2.41	1.04
5:R:1856:ILE:O	5:R:1859:TYR:CD2	2.09	1.04
2:N:1514:PRO:HD3	2:N:1568:ARG:HE	0.91	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1638:ARG:NH2	2:N:1796:SER:HB3	1.72	1.04
5:T:3902:LEU:O	5:T:3903:THR:HG23	1.58	1.04
2:N:1638:ARG:NH1	2:N:1794:LEU:HD21	1.72	1.04
1:C:2028:VAL:CG2	1:C:2329:ALA:CB	2.25	1.04
2:O:2610:THR:HG21	3:P:3643:SER:HB3	1.38	1.04
3:P:3597:MET:HB3	3:P:3758:PRO:CG	1.88	1.04
5:Q:849:HIS:CB	5:Q:850:GLY:CA	2.30	1.04
4:F:1421:VAL:HG11	5:R:1884:THR:CA	1.87	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:1848:ALA:HA	5:R:1858:TYR:OH	1.56	1.04
5:R:1856:ILE:CA	5:R:1859:TYR:CE2	2.41	1.04
5:T:3901:GLU:OE2	6:L:3139:LYS:HG2	1.58	1.04
1:A:362:SER:CA	4:E:402:ILE:HD12	1.87	1.03
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
3:P:3597:MET:HE3	3:P:3660:THR:CG2	1.88	1.03
4:E:399:VAL:CB	4:E:400:GLN:CA	2.31	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
5:S:2907:THR:O	5:S:2909:PRO:CD	0.74	1.03
1:A:388:VAL:HA	2:M:841:GLN:HG2	1.05	1.03
1:C:2388:VAL:HB	2:O:2841:GLN:O	1.57	1.03
5:R:1902:LEU:O	5:R:1903:THR:HG23	1.58	1.03
4:G:2394:HIS:O	4:G:2395:THR:HG23	1.58	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:F:1424:ALA:HB1	5:R:1888:MET:CE	1.86	1.03
4:H:3399:VAL:CG1	4:H:3400:GLN:HA	1.88	1.03
1:A:192:PHE:CD2	1:B:1152:HIS:CD2	2.46	1.03
1:A:362:SER:CB	4:E:402:ILE:CG2	1.75	1.03
2:N:1673:PRO:HG2	2:N:1743:PRO:CD	1.83	1.03
1:D:3393:SER:C	4:H:3394:HIS:HB2	1.77	1.03
4:E:399:VAL:CG1	4:E:400:GLN:HA	1.89	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
6:I:235:LEU:HD12	6:I:258:LYS:HE3	1.37	1.03
5:Q:902:LEU:CD1	6:I:139:LYS:CE	2.36	1.03
5:T:3856:ILE:CA	5:T:3859:TYR:CE2	2.41	1.03
1:A:362:SER:O	4:E:402:ILE:HD13	0.85	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:G:2428:LEU:HD21	5:S:2895:ARG:NH2	1.73	1.02
5:S:2856:ILE:CA	5:S:2859:TYR:CE2	2.42	1.02
1:A:192:PHE:CD2	1:B:1152:HIS:HD2	1.76	1.02
2:N:1609:GLU:HB3	2:O:2642:HIS:CE1	1.94	1.02
1:C:2388:VAL:HG12	2:O:2841:GLN:HB2	1.35	1.02
4:F:1399:VAL:CB	4:F:1400:GLN:CA	2.30	1.02
5:R:1849:HIS:CE1	5:R:1855:ILE:CG1	2.40	1.02
5:R:1852:PRO:HA	5:R:1855:ILE:HD12	1.04	1.02
5:R:1901:GLU:O	5:R:1902:LEU:HG	1.55	1.02
5:S:2902:LEU:O	5:S:2903:THR:HG23	1.58	1.02
5:Q:852:PRO:HA	5:Q:855:ILE:HD12	1.04	1.02
5:R:1898:THR:CG2	6:J:1165:LYS:CD	2.22	1.02
4:H:3421:VAL:HG21	5:T:3884:THR:HB	1.28	1.02
5:T:3849:HIS:HE1	5:T:3855:ILE:CG1	1.73	1.02
5:T:3852:PRO:HA	5:T:3855:ILE:HD12	1.04	1.02
1:B:1385:ASP:CA	2:N:1841:GLN:HE21	1.67	1.02
2:N:1645:PRO:HG3	2:N:1769:PRO:CG	1.88	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
2:M:673:PRO:HD3	2:M:736:GLN:CD	1.80	1.01
4:F:1406:ALA:CB	5:R:1849:HIS:CD2	2.42	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:H:3396:THR:O	4:H:3397:LEU:HG	1.60	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
2:N:1645:PRO:HG2	2:N:1769:PRO:HD3	1.42	1.01
4:H:3399:VAL:CB	4:H:3400:GLN:CA	2.31	1.01
1:A:362:SER:CA	4:E:402:ILE:CD1	2.38	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
2:N:1788:TYR:OH	1:D:3242:TYR:CB	2.09	1.01
2:O:2841:GLN:NE2	2:O:2842:LEU:HD23	1.74	1.01
1:D:3088:MET:HB2	3:P:3676:PRO:HD2	1.02	1.01
3:P:3509:TYR:CB	3:P:3556:ILE:HG21	1.90	1.01
5:Q:911:LEU:N	5:Q:913:SER:HB3	1.76	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
1:A:388:VAL:CA	2:M:841:GLN:HG2	1.91	1.00
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
4:F:1402:ILE:C	4:F:1403:SER:N	2.13	1.00
5:S:2913:SER:C	5:S:2914:LEU:O	2.00	1.00
5:T:3911:LEU:N	5:T:3913:SER:HB3	1.76	1.00
2:N:1513:ARG:HG3	2:N:1514:PRO:N	1.75	1.00
1:D:3089:TRP:NE1	3:P:3572:ASN:CA	2.23	1.00
5:T:3852:PRO:HA	5:T:3855:ILE:CD1	1.90	1.00
1:A:257:PHE:CZ	2:M:802:GLU:HG3	1.96	1.00
1:A:360:LEU:CD2	4:E:401:ASP:CB	2.38	1.00
2:N:1639:GLU:HG2	2:N:1793:THR:HA	1.05	1.00
5:R:1852:PRO:HA	5:R:1855:ILE:CD1	1.90	1.00
5:R:1902:LEU:HD12	6:J:1170:CYS:HB2	1.00	1.00
5:R:1911:LEU:N	5:R:1913:SER:HB3	1.76	1.00
5:S:2851:HIS:CB	5:S:2852:PRO:CD	2.37	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:E:432:LEU:HD21	5:Q:894:ARG:CG	1.91	0.99
4:G:2432:LEU:O	4:G:2436:PHE:CD2	2.15	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:3507:ASN:HA	3:P:3562:HIS:CD2	1.98	0.99
3:P:3509:TYR:CD1	3:P:3556:ILE:HD13	1.95	0.99
1:B:1336:ALA:O	4:F:1394:HIS:N	1.96	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
6:L:3235:LEU:CD1	6:L:3258:LYS:HE3	1.93	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)
2:N:1602:LEU:CD1	2:N:1759:PHE:CZ	2.43	0.99
6:J:1235:LEU:CD1	6:J:1258:LYS:HE3	1.92	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
1:D:3387:ILE:HG13	3:P:3781:ASN:H	1.24	0.98
3:P:3509:TYR:HB3	3:P:3556:ILE:HG21	0.99	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
3:P:3510:LYS:HA	3:P:3560:ASP:HB2	1.00	0.98
4:E:402:ILE:CG2	4:E:403:SER:CA	2.30	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
2:O:2525:GLY:HA3	3:P:3644:ARG:HD3	1.44	0.98
4:F:1432:LEU:O	4:F:1436:PHE:CD2	2.15	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:HA	5:Q:908:VAL:N	1.78	0.98
5:Q:906:ALA:CA	5:Q:907:THR:C	2.30	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:HE2	6:J:1157:LYS:HA	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
5:T:3864:PRO:O	5:T:3865:THR:HG23	1.63	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
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
5:Q:908:VAL:HG12	5:Q:909:PRO:HD3	1.45	0.97
5:T:3906:ALA:HA	5:T:3908:VAL:N	1.78	0.97
5:T:3908:VAL:HG12	5:T:3909:PRO:HD3	1.45	0.97
6:I:235:LEU:CD1	6:I:258:LYS:HE3	1.92	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:1409:TRP:CE2	5:R:1851:HIS:CE1	2.52	0.96
4:F:1424:ALA:CB	5:R:1888:MET:CE	2.42	0.96
5:S:2918:VAL:CG2	5:S:2920:THR:N	2.28	0.96
5:S:2906:ALA:HB1	5:S:2909:PRO:HD3	1.41	0.96
6:K:2235:LEU:CD1	6:K:2258:LYS:HE3	1.92	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
4:F:1402:ILE:HG22	4:F:1403:SER:HA	1.48	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:2849:HIS:HB3	5:S:2850:GLY:HA3	1.44	0.95
5:S:2900:TYR:O	6:K:2161:LYS:CE	2.12	0.95
5:S:2909:PRO:HD2	5:S:2910:PHE:CD2	1.63	0.95
5:T:3901:GLU:O	6:L:3139:LYS:HE3	1.67	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
2:N:1646:GLN:NE2	3:P:3518:HIS:ND1	2.14	0.95
1:C:2362:SER:CA	4:G:2402:ILE:HD12	1.96	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:A:388:VAL:O	2:M:839:TRP:HB3	1.66	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
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
2:M:573:HIS:CE1	2:M:729:VAL:CB	2.50	0.94
1:B:1040:PRO:HB3	1:B:1127:ALA:HB2	1.47	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
2:N:1638:ARG:CB	2:N:1794:LEU:HD22	1.98	0.94
1:D:3089:TRP:CE2	3:P:3572:ASN:C	2.39	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
5:S:2918:VAL:HG22	5:S:2919:ARG:HA	1.50	0.94
4:H:3402:ILE:HG22	4:H:3403:SER:HA	0.98	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)
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
4:H:3421:VAL:HG11	5:T:3884:THR:CG2	1.96	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:C:2091:GLY:HA3	2:O:2678:ARG:HE	1.31	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
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
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: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
5:T:3906:ALA:HB2	5:T:3908:VAL:HB	1.45	0.94
6:J:1183:LYS:O	6:J:1184:PHE:N	2.00	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:CG	2:N:1794:LEU:HD23	1.81	0.94
2:N:1638:ARG:HB3	2:N:1794:LEU:CD2	1.97	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
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:1900:TYR:OH	6:J:1164:SER:N	1.84	0.93
5:R:1922:LYS:CA	5:R:1923:ALA:C	2.35	0.93
2:N:1547:LYS:HZ3	2:N:1757:ILE:HD12	1.31	0.93
4:H:3402:ILE:CB	4:H:3403:SER:CA	2.45	0.93
1:A:57:SER:O	2:M:744:ARG:NH1	2.00	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
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:B:1383:PRO:HB2	2:N:1841:GLN:HE22	1.33	0.93
2:N:1673:PRO:HB2	2:N:1743:PRO:CB	1.99	0.93
1:C:2026:PRO:CG	1:C:2371:SER:OG	2.17	0.93
2:O:2519:CYS:O	3:P:3646:GLN:NE2	2.02	0.93
2:O:2671:MET:O	2:O:2673:PRO:HD3	1.68	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:A:57:SER:OG	2:M:738:ASN:OD1	1.87	0.92
1:D:3090:GLY:CA	3:P:3677:ASP:HA	1.98	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
2:N:1592:THR:OG1	3:P:3524:GLU:CD	2.08	0.92
4:F:1399:VAL:CG1	4:F:1400:GLN:C	2.38	0.92
1:A:88:MET:SD	2:M:743:PRO:HG2	2.10	0.92
2:M:573:HIS:HE1	2:M:729:VAL:HB	1.12	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
2:N:1643:SER:HB3	3:P:3628:PRO:HD3	1.50	0.92
2:N:1768:VAL:HB	2:N:1832:ASN:HD21	1.33	0.92
5:Q:847:THR:OG1	5:Q:857:LEU:CD1	2.17	0.92
4:H:3402:ILE:HG22	4:H:3403:SER:C	1.91	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
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
1:D:3091:GLY:O	3:P:3676:PRO:CB	2.17	0.91
1:B:1237:PRO:HG2	2:O:2788:TYR:CE1	2.05	0.91
4:E:402:ILE:HG22	4:E:403:SER:C	1.91	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
1:A:387:ILE:CD1	2:M:781:ASN:OD1	2.18	0.90
2:M:698:ARG:NH2	2:M:732:HIS:HE1	1.69	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
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
4:G:2394:HIS:C	4:G:2395:THR:HG23	1.91	0.90
5:T:3880:SER:O	5:T:3884:THR:HG23	1.71	0.90
6:J:1183:LYS:C	6:J:1184:PHE:N	2.25	0.90
5:S:2856:ILE:HG23	5:S:2859:TYR:CE2	2.07	0.90
4:H:3399:VAL:CG1	4:H:3400:GLN:C	2.39	0.90
5:T:3910:PHE:C	5:T:3913:SER:HB3	1.92	0.90
6:J:1145:HIS:HE1	6:J:1235:LEU:HD22	1.33	0.90
1:D:3091:GLY:N	3:P:3676:PRO:HB2	1.86	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
5:R:1898:THR:HG23	6:J:1165:LYS:CB	2.01	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:125:HIS:CD2	1:B:1126:THR:CG2	2.55	0.90
1:A:129:ALA:CB	1:A:166:MET:HG3	2.01	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
4:H:3402:ILE:CG2	4:H:3403:SER:CA	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
1:B:1242:TYR:HA	2:O:2814:LYS:HZ2	1.35	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
5:Q:910:PHE:C	5:Q:913:SER:HB3	1.92	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:918:VAL:CG1	5:Q:919:ARG:CA	2.30	0.89
5:S:2900:TYR:CZ	6:K:2161:LYS:HG2	2.07	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
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
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
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
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
4:G:2399:VAL:HB	4:G:2400:GLN:HA	0.91	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
6:J:1120:ILE:HD11	6:J:1224:PHE:HZ	1.38	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
1:B:1236:ALA:CB	2:O:2775:THR:OG1	2.21	0.89
2:N:1639:GLU:CG	2:N:1793:THR:HA	2.00	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
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
4:H:3428:LEU:CD2	5:T:3891:CYS:HB3	2.03	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
2:O:2842:LEU:O	5:S:2843:SER:N	2.06	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

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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
2:M:639:GLU:CD	2:M:832:ASN:HB2	1.94	0.88
4:H:3399:VAL:CG1	4:H:3400:GLN:CA	2.51	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
3:P:3638:ARG:HE	3:P:3831:GLY:C	1.75	0.88
4:F:1399:VAL:HB	4:F:1400:GLN:HA	0.89	0.88
5:R:1849:HIS:HE1	5:R:1855:ILE:HG12	1.35	0.88
5:R:1902:LEU:CB	6:J:1170:CYS:HB2	2.03	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:1541:ALA:H	2:N:1656:TYR:HE2	1.11	0.88
2:N:1609:GLU:HB3	2:O:2642:HIS:NE2	1.88	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: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
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
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
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
1:D:3387:ILE:HG22	3:P:3840:PRO:HA	1.56	0.87
3:P:3597:MET:CE	3:P:3660:THR:HG21	2.04	0.87
4:F:1428:LEU:CD2	5:R:1895:ARG:HE	1.87	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
3:P:3672:PRO:CB	3:P:3736:GLN:CD	2.38	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
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
5:Q:902:LEU:CD1	6:I:139:LYS:HD3	1.98	0.87
4:F:1406:ALA:CB	5:R:1849:HIS:CG	2.56	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
5:R:1907:THR:HA	5:R:1921:THR:HG21	1.56	0.86
4:H:3421:VAL:HG11	5:T:3884:THR:HG22	1.54	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
5:R:1907:THR:N	5:R:1921:THR:CG2	2.30	0.86
4:G:2399:VAL:HG12	4:G:2400:GLN:CA	2.05	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
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
6:J:1166:TYR:CD1	6:J:1256:VAL:HG12	2.10	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
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
4:G:2402:ILE:HG22	4:G:2404:THR:HG1	1.38	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
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
4:F:1428:LEU:HD11	5:R:1891:CYS:HB2	1.57	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:Q:849:HIS:CE1	5:Q:855:ILE:CG1	2.44	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:T:3900:TYR:CE1	6:L:3161:LYS:HD2	2.11	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
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
4:F:1399:VAL:CG1	4:F:1401:ASP:N	2.39	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
2:N:1525:GLY:O	2:O:2644:ARG:HD3	1.74	0.85
2:N:1672:PRO:C	2:N:1731:ASN:OD1	2.15	0.85
1:C:2387:ILE:HA	2:O:2841:GLN:H	0.76	0.85
2:O:2518:HIS:CE1	3:P:3646:GLN:HE22	1.93	0.85
4:E:439:HIS:CE1	6:I:165:LYS:CD	2.40	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:1602:LEU:CG	2:N:1759:PHE:CE2	2.60	0.85
2:N:1729:VAL:HG12	2:N:1730:THR:N	1.91	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
2:O:2841:GLN:CD	2:O:2842:LEU:CD2	2.39	0.84
1:D:3042:LEU:HD11	1:D:3266:VAL:HG22	1.58	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:90:GLY:O	2:M:726:HIS:CD2	2.30	0.84
1:A:297:THR:HG22	1:A:298:ASP:H	1.42	0.84
2:N:1731:ASN:O	2:N:1732:HIS:CG	2.30	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1856:ILE:C	5:R:1859:TYR:HD2	1.79	0.84
4:G:2399:VAL:CG1	4:G:2401:ASP:N	2.39	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:3058:PRO:CD	3:P:3740:PRO:O	2.22	0.84
1:D:3387:ILE:HD11	3:P:3781:ASN:CG	1.98	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
2:N:1540:GLU:CA	2:N:1656:TYR:OH	2.26	0.84
1:C:2041:THR:C	1:C:2042:LEU:HG	1.97	0.84
1:D:3091:GLY:O	3:P:3676:PRO:HB2	1.77	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
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
1:A:385:ASP:HB3	2:M:841:GLN:HB2	1.60	0.83
2:M:676:PRO:HA	2:M:728:ALA:HB1	1.59	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
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
1:D:3386:HIS:CE1	5:T:3844:THR:O	2.31	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
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
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: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
1:D:3383:PRO:HG2	3:P:3842:MET:HB3	1.61	0.83
4:E:432:LEU:O	4:E:436:PHE:HD2	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:1547:LYS:HZ3	2:N:1757:ILE:CD1	1.86	0.83
2:N:1644:ARG:HH12	3:P:3527:SER:HG	1.23	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
1:A:385:ASP:CB	2:M:841:GLN:HB3	2.10	0.82
2:M:639:GLU:CD	2:M:832:ASN:H	1.83	0.82
2:N:1509:TYR:HB3	2:N:1556:ILE:HG12	1.62	0.82
4:E:428:LEU:HB3	5:Q:894:ARG:HD2	1.61	0.82
5:Q:848:ALA:O	5:Q:854:GLU:HB2	1.80	0.82
5:S:2849:HIS:CA	5:S:2854:GLU:HB2	2.09	0.82
1:D:3057:SER:HA	3:P:3739:SER:O	1.80	0.82
1:D:3386:HIS:NE2	5:T:3844:THR:O	2.12	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
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
4:F:1421:VAL:HG21	5:R:1884:THR:OG1	1.79	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: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
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
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:1638:ARG:O	2:N:1794:LEU:HB2	1.80	0.81
2:N:1788:TYR:HB3	1:D:3237:PRO:HG3	1.63	0.81
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1907:THR:O	5:R:1910:PHE:CD2	2.32	0.81
5:S:2856:ILE:HG23	5:S:2859:TYR:CD2	2.15	0.81
4:H:3421:VAL:HG11	5:T:3884:THR:HA	1.62	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
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
1:C:2016:LYS:HE2	1:C:2342:ALA:CA	2.10	0.81
5:S:2863:TYR:O	5:S:2864:PRO:C	2.07	0.81
1:B:1242:TYR:CB	2:O:2788:TYR:OH	2.26	0.81
1:C:2387:ILE:HG23	2:O:2840:PRO:HA	0.83	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
6:K:2227:LYS:HB2	6:K:2227:LYS:NZ	1.96	0.81
2:N:1542:THR:HG23	2:N:1654:SER:OG	1.81	0.81
1:C:2362:SER:HB3	4:G:2402:ILE:CG1	2.10	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
6:L:3227:LYS:NZ	6:L:3227:LYS:HB2	1.96	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
5:Q:910:PHE:C	5:Q:913:SER:CB	2.50	0.80
4:H:3396:THR:O	4:H:3397:LEU:CG	2.30	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
3:P:3510:LYS:HA	3:P:3560:ASP:HB3	0.89	0.80
4:E:396:THR:O	4:E:397:LEU:CG	2.30	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
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
2:O:2639:GLU:OE1	2:O:2769:PRO:HB2	1.82	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
2:N:1643:SER:OG	3:P:3628:PRO:CG	2.30	0.80
3:P:3596:THR:N	3:P:3759:PHE:HZ	1.79	0.80
3:P:3672:PRO:CB	3:P:3736:GLN:HE22	1.87	0.80
6:J:1227:LYS:HB2	6:J:1227:LYS:NZ	1.96	0.80
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:R:1902:LEU:HD13	6:J:1139:LYS:HG3	1.61	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
6:I:227:LYS:HB2	6:I:227:LYS:NZ	1.96	0.79
1:D:3090:GLY:O	3:P:3677:ASP:N	2.15	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
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:T:3910:PHE:C	5:T:3913:SER:CB	2.50	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
6:K:2183:LYS:O	6:K:2230:VAL:N	2.14	0.79
5:Q:849:HIS:HA	5:Q:854:GLU:HB2	1.64	0.79
5:R:1902:LEU:HB2	6:J:1170:CYS:HB2	1.60	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1773:ASN:HD22	1:D:3234:SER:CB	1.95	0.79
1:C:2362:SER:CB	4:G:2402:ILE:HG21	2.13	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
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
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
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
6:I:262:GLU:HB3	6:K:2175:VAL:CG1	2.13	0.78
6:J:1136:VAL:HG22	6:J:1184:PHE:HD2	1.47	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
5:Q:849:HIS:O	5:Q:854:GLU:CD	2.21	0.78
4:G:2428:LEU:HD21	5:S:2895:ARG:HH21	1.48	0.78
5:T:3916:CYS:CA	5:T:3917:CYS:O	2.30	0.78
6:I:262:GLU:HB3	6:K:2175:VAL:HG11	1.65	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
2:M:673:PRO:HD2	2:M:736:GLN:CD	1.89	0.78
4:G:2432:LEU:O	4:G:2436:PHE:HD2	1.61	0.78
5:S:2910:PHE:CD1	5:S:2921:THR:OG1	2.37	0.78
2:N:1639:GLU:CA	2:N:1810:TRP:CZ3	2.44	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
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
4:H:3432:LEU:O	4:H:3436:PHE:HD2	1.61	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:1040:PRO:HA	1:B:1127:ALA:HA	1.64	0.77
1:B:1090:GLY:C	2:N:1726:HIS:CD2	2.58	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
2:N:1549:GLN:HE22	2:N:1737:TYR:HE2	1.23	0.77
1:D:3016:LYS:HE2	1:D:3342:ALA:HB2	1.64	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:2040:PRO:HA	1:C:2127:ALA:HA	1.65	0.77
1:C:2116:THR:HG23	2:O:2763:ASN:CG	2.04	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:1647:HIS:CE1	1:D:3225:ALA:HB3	2.20	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
5:T:3849:HIS:ND1	5:T:3855:ILE:HG13	1.99	0.77
6:J:1166:TYR:HB3	6:J:1256:VAL:HG11	1.67	0.77
1:B:1009:ASN:HB2	1:B:1274:GLY:O	1.84	0.77
1:B:1116:THR:HG21	2:N:1761:LEU:HD23	1.67	0.77
2:N:1670:HIS:N	2:N:1736:GLN:O	2.17	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
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
5:T:3902:LEU:HD12	6:L:3138:ASP:OD1	1.85	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
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
1:C:2362:SER:C	4:G:2402:ILE:HD11	2.06	0.76
2:O:2840:PRO:O	2:O:2841:GLN:CB	2.32	0.76
4:E:439:HIS:CD2	6:I:165:LYS:HD3	2.20	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
2:N:1535:GLU:CG	2:N:1741:LEU:HD12	2.14	0.76
1:C:2362:SER:OG	4:G:2402:ILE:HG21	1.84	0.76
5:R:1908:VAL:CB	5:R:1909:PRO:HD3	2.04	0.76
2:N:1602:LEU:CG	2:N:1759:PHE:CD2	2.69	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1609:GLU:O	2:O:2642:HIS:CE1	2.39	0.76
2:N:1775:THR:HG21	1:D:3197:PRO:O	1.86	0.76
1:D:3088:MET:HE2	3:P:3675:THR:CG2	2.14	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
2:M:821:VAL:HG12	2:M:840:PRO:HD3	1.68	0.76
1:C:2026:PRO:HD3	1:C:2371:SER:HG	1.47	0.76
5:Q:910:PHE:CD1	5:Q:917:CYS:HA	2.21	0.76
4:F:1421:VAL:CB	5:R:1884:THR:CB	2.60	0.76
1:B:1090:GLY:N	2:N:1676:PRO:HB3	2.00	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
4:H:3403:SER:H	4:H:3407:MET:HG2	1.51	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
2:N:1645:PRO:CD	2:N:1769:PRO:HD3	2.13	0.75
1:D:3387:ILE:HG13	3:P:3781:ASN:N	2.01	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:847:THR:OG1	5:Q:854:GLU:HG2	1.86	0.75
5:Q:902:LEU:CD1	6:I:139:LYS:HG2	2.16	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:M:672:PRO:CB	2:M:673:PRO:HD2	2.13	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1647:HIS:NE2	1:D:3225:ALA:HB1	2.01	0.75
5:Q:906:ALA:C	5:Q:910:PHE:HD2	1.86	0.75
2:N:1729:VAL:HG12	2:N:1730:THR:H	1.51	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
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
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
6:J:1131:GLY:HA2	6:J:1219:SER:O	1.87	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
2:N:1513:ARG:CG	2:N:1514:PRO:N	2.48	0.74
1:C:2387:ILE:C	2:O:2841:GLN:O	2.24	0.74
5:T:3918:VAL:HG22	5:T:3921:THR:H	1.52	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
5:R:1898:THR:CG2	6:J:1165:LYS:CB	2.64	0.74
2:N:1670:HIS:CE1	2:N:1671:MET:O	2.41	0.74
1:C:2362:SER:CB	4:G:2402:ILE:HD13	2.16	0.74
1:D:3089:TRP:HE1	3:P:3572:ASN:CB	1.99	0.74
4:E:403:SER:H	4:E:407:MET:HG2	1.51	0.74
5:Q:918:VAL:HG22	5:Q:921:THR:H	1.52	0.74
4:F:1424:ALA:CB	5:R:1888:MET:SD	2.75	0.74
5:R:1864:PRO:O	5:R:1865:THR:CB	2.35	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:O	2:M:635:VAL:HG13	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
3:P:3597:MET:CE	3:P:3660:THR:HG23	2.16	0.74
5:R:1898:THR:HG23	6:J:1165:LYS:HB2	1.66	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
2:N:1602:LEU:CD1	2:N:1759:PHE:CE1	2.71	0.74
2:N:1602:LEU:CD1	2:N:1759:PHE:CD1	2.68	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
4:H:3402:ILE:HB	4:H:3403:SER:CA	2.15	0.74
5:T:3921:THR:O	5:T:3922:LYS:CB	2.36	0.74
6:J:1166:TYR:CG	6:J:1256:VAL:HG12	2.22	0.74
5:R:1847:THR:OG1	5:R:1857:LEU:HD12	1.88	0.74
4:G:2428:LEU:CG	5:S:2895:ARG:HH21	2.01	0.74
5:S:2854:GLU:HA	5:S:2857:LEU:CD1	2.17	0.74
2:M:675:THR:O	2:M:728:ALA:HB1	1.88	0.73
2:N:1638:ARG:NH2	2:N:1794:LEU:HG	2.03	0.73
2:N:1677:ASP:HB3	2:N:1680:LEU:HD12	1.70	0.73
1:D:3129:ALA:CB	1:D:3166:MET:CG	2.66	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
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
6:J:1185:THR:HG22	6:J:1229:ARG:HB3	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1860:TYR:C	5:R:1863:TYR:CD2	2.53	0.73
4:H:3421:VAL:CG1	5:T:3884:THR:HG22	2.18	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
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
6:I:185:THR:HG22	6:I:229:ARG:HB3	1.71	0.73
1:A:95:PHE:CB	2:M:700:LYS:CE	2.62	0.73
1:A:360:LEU:HB3	4:E:402:ILE:CD1	2.17	0.73
2:M:515:TYR:O	2:M:551:SER:OG	2.05	0.73
1:C:2297:THR:HG22	1:C:2298:ASP:H	1.53	0.73
3:P:3509:TYR:O	3:P:3560:ASP:HB3	1.89	0.73
6:K:2185:THR:HG22	6:K:2229:ARG:HB3	1.71	0.73
4:E:403:SER:N	4:E:407: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
4:G:2403:SER:N	4:G:2407:MET:CG	2.52	0.72
5:R:1918:VAL:HG22	5:R:1920:THR:H	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:D:3089:TRP:HE1	3:P:3572:ASN:HB3	1.53	0.72
1:C:2040:PRO:HB3	1:C:2127:ALA:CB	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
1:D:3091:GLY:CA	3:P:3676:PRO:HB2	2.19	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
1:C:2242:TYR:CE1	3:P:3814:LYS:CD	2.73	0.72
3:P:3673:PRO:CG	3:P:3742:VAL:HG13	2.20	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
5:S:2847:THR:HB	5:S:2854:GLU:OE1	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:3403:SER:N	4:H:3407:MET:CG	2.52	0.72
1:B:1242:TYR:HA	2:O:2814:LYS:HZ3	1.53	0.72
2:O:2639:GLU:OE2	2:O:2770:LYS:HA	1.88	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
2:N:1638:ARG:CZ	2:N:1794:LEU:CG	2.68	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
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
2:N:1788:TYR:OH	1:D:3242:TYR:CG	2.40	0.71
1:C:2242:TYR:HD1	3:P:3814:LYS:CE	1.99	0.71
2:O:2639:GLU:CG	2:O:2791:HIS:CE1	2.72	0.71
5:R:1901:GLU:C	6:J:1170:CYS:SG	2.69	0.71
5:R:1910:PHE:CD2	5:R:1921:THR:HG21	2.24	0.71
5:R:1911:LEU:N	5:R:1913:SER:CB	2.54	0.71
5:T:3907:THR:CG2	5:T:3921:THR:CB	2.69	0.71
1:C:2237:PRO:CG	3:P:3788:TYR:CD2	2.74	0.71
2:O:2651:LEU:HD12	2:O:2768:VAL:CG2	2.20	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
2:N:1647:HIS:HE1	1:D:3228:THR:OG1	1.74	0.71
5:T:3900:TYR:HE1	6:L:3161:LYS:HD3	1.50	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
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
4:E:403:SER:H	4:E:407:MET:CG	2.03	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
5:R:1848:ALA:C	5:R:1854:GLU:HB2	2.05	0.70
5:S:2900:TYR:C	5:S:2900:TYR:CD2	2.61	0.70
4:H:3421:VAL:CB	5:T:3884:THR:CG2	2.69	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
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
1:C:2242:TYR:CD1	3:P:3814:LYS:CE	2.73	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
2:O:2842:LEU:C	5:S:2843:SER:N	2.44	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
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
2:N:1673:PRO:CG	2:N:1743:PRO:CD	2.65	0.70
1:D:3058:PRO:O	3:P:3743:PRO:CB	2.40	0.70
3:P:3596:THR:N	3:P:3759:PHE:CZ	2.60	0.70
3:P:3677:ASP:HB3	3:P:3680:LEU:CD1	2.21	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
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:F:1399:VAL:HG13	4:F:1401:ASP:OD2	1.92	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
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
1:D:3393:SER:CA	4:H:3394:HIS:HD2	2.03	0.69
5:Q:910:PHE:CA	5:Q:913:SER:HB3	2.22	0.69
4:F:1428:LEU:HD23	5:R:1895:ARG:CZ	2.20	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:B:1385:ASP:H	2:N:1841:GLN:HE21	0.71	0.69
1:C:2242:TYR:CE1	3:P:3814:LYS:HD2	2.27	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
4:G:2428:LEU:HD11	5:S:2895:ARG:NH2	2.07	0.69
5:S:2909:PRO:HD2	5:S:2910:PHE:N	2.08	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:H:3434:VAL:O	4:H:3438:ARG:HG3	1.93	0.69
1:D:3105:GLU:OE2	3:P:3744:ARG:NH1	2.25	0.69
3:P:3509:TYR:HE2	3:P:3562:HIS:HE1	1.40	0.69
4:E:399:VAL:HG13	4:E:401:ASP:OD2	1.92	0.69
5:Q:911:LEU:N	5:Q:913:SER:CB	2.54	0.69
6:J:1168:LEU:CD2	6:J:1256:VAL:HG21	2.22	0.69
5:R:1917:CYS:O	5:R:1920:THR:HG21	1.92	0.69
2:O:2639:GLU:CB	2:O:2791:HIS:NE2	2.56	0.69
1:D:3055:ILE:O	3:P:3740:PRO:HB3	1.93	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:A:364:GLU:OE2	4:E:404:THR:HG21	1.93	0.69
2:M:639:GLU:CG	2:M:832:ASN:H	2.06	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:D:3055:ILE:C	3:P:3740:PRO:HB3	2.12	0.69
1:D:3383:PRO:HG2	3:P:3842:MET:CB	2.22	0.69
3:P:3594:THR:HB	3:P:3658:GLN:OE1	1.93	0.69
5:Q:848:ALA:C	5:Q:854:GLU:CB	2.61	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
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
5:Q:854:GLU:HA	5:Q:857:LEU:HD12	1.74	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: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
5:S:2863:TYR:N	5:S:2864:PRO:HD3	2.09	0.68
4:H:3421:VAL:HG21	5:T:3884:THR:HG21	1.74	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
1:A:362:SER:CA	4:E:402:ILE:HD13	2.11	0.68
2:M:547:LYS:HE3	2:M:759:PHE:HB2	1.73	0.68
2:N:1788:TYR:CD1	1:D:3237:PRO:CG	2.66	0.68
4:E:432:LEU:CG	5:Q:894:ARG:CD	2.68	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
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
4:H:3399:VAL:HG13	4:H:3401:ASP:OD2	1.92	0.68
1:C:2093:TYR:OH	2:O:2744:ARG:O	2.06	0.68
2:O:2516:LEU:HD12	2:O:2570:MET:HG2	1.75	0.68
5:T:3917:CYS:O	5:T:3920:THR:HG21	1.92	0.68
6:J:1136:VAL:CG2	6:J:1184:PHE:HD2	2.07	0.68
1:B:1389:ASN:CA	2:N:1839:TRP:HZ3	1.98	0.68
1:C:2235:GLN:O	3:P:3772:ARG:NH2	2.27	0.68
1:D:3058:PRO:O	3:P:3743:PRO:HB3	1.94	0.68
6:J:1120:ILE:HD11	6:J:1224:PHE:CZ	2.26	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
2:M:639:GLU:HG3	2:M:832:ASN:N	2.08	0.68
2:M:672:PRO:CB	2:M:736:GLN:CB	2.45	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
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
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
6:I:227:LYS:HB2	6:I:227:LYS:HZ2	1.58	0.67
1:B:1035:SER:O	1:B:1036:VAL:HG22	1.93	0.67
2:N:1509:TYR:CG	2:N:1556:ILE:HD11	2.29	0.67
4:E:439:HIS:CD2	6:I:165:LYS:CD	2.75	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:E:432:LEU:HD21	5:Q:894:ARG:CD	2.23	0.67
4:F:1407:MET:SD	5:R:1855:ILE:HG12	2.34	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
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
1:D:3388:VAL:HG12	3:P:3841:GLN:HA	1.75	0.67
5:Q:863:TYR:N	5:Q:864:PRO:HD3	2.09	0.67
4:H:3396:THR:C	4:H:3397:LEU:HG	2.13	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
4:F:1428:LEU:HD23	5:R:1895:ARG:NH2	2.09	0.67
5:R:1865:THR:O	5:R:1867:THR:N	2.28	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
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
6:J:1227:LYS:HB2	6:J:1227:LYS:HZ2	1.56	0.66
2:N:1638:ARG:HB3	2:N:1794:LEU:HD22	1.69	0.66
2:N:1729:VAL:CG1	2:N:1730:THR:N	2.56	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
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
4:G:2428:LEU:HD22	5:S:2895:ARG:NE	1.98	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
2:N:1640:LYS:HB2	2:N:1792:PRO:HG2	1.78	0.66
2:N:1649:LYS:HB3	2:N:1768:VAL:CG2	2.25	0.66
1:C:2028:VAL:HG23	1:C:2329:ALA:HB3	1.71	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
5:R:1914:LEU:O	5:R:1915:LEU:C	2.33	0.66
4:G:2404:THR:O	4:G:2405:THR:C	2.33	0.66
2:M:639:GLU:OE1	2:M:770:LYS:HA	1.95	0.66
1:B:1393:SER:O	4:F:1394:HIS:CG	2.49	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:R:1898:THR:CG2	6:J:1165:LYS:HE3	2.17	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:S:2856:ILE:C	5:S:2859:TYR:CD2	2.59	0.66
5:T:3900:TYR:HE1	6:L:3161:LYS:CD	2.05	0.66
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:1898:THR:N	6:J:1165:LYS:CE	2.59	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
2:N:1521:ASP:HB2	2:O:2643:SER:HB2	1.77	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
1:A:125:HIS:ND1	1:B:1126:THR:HG21	2.08	0.65
2:M:547:LYS:NZ	2:M:759:PHE:O	2.26	0.65
2:M:672:PRO:HB2	2:M:736:GLN:HE21	1.54	0.65
2:N:1609:GLU:HB2	2:O:2642:HIS:NE2	2.10	0.65
1:D:3389:ASN:C	3:P:3839:TRP:HB2	2.17	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
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
4:E:403:SER:N	4:E:407:MET:HG2	2.11	0.65
5:Q:856:ILE:C	5:Q:859:TYR:CD2	2.62	0.65
5:Q:900:TYR:HH	6:I:163:SER:HG	0.67	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:2849:HIS:N	5:S:2854:GLU:OE1	2.30	0.65
5:S:2854:GLU:CG	5:S:2857:LEU:HD12	2.26	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
1:B:1382:PRO:HB3	5:R:1843:SER:HA	1.79	0.65
1:C:2058:PRO:HA	2:O:2744:ARG:NH1	2.11	0.65
4:E:396:THR:C	4:E:397:LEU:HG	2.15	0.65
5:Q:897:ILE:O	5:Q:900:TYR:N	2.30	0.65
5:S:2898:THR:O	5:S:2900:TYR:N	2.30	0.65
5:S:2900:TYR:OH	6:K:2163:SER:CA	2.44	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
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:CG1	5:Q:919:ARG:N	2.57	0.65
5:Q:918:VAL:HA	5:Q:919:ARG:C	2.17	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
6:I:262:GLU:OE1	6:K:2175:VAL:CG1	2.44	0.65
1:A:37:THR:CG2	1:A:267:ARG:HG3	2.26	0.65
1:A:254:THR:HG22	2:M:806:TYR:HB3	1.79	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
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
4:G:2403:SER:N	4:G:2407:MET:HG2	2.11	0.65
5:S:2910:PHE:O	5:S:2911:LEU:CB	2.45	0.65
1:D:3254:THR:HG22	3:P:3806:TYR:HB3	1.78	0.65
4:E:404:THR:O	4:E:405:THR:C	2.33	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
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
4:H:3403:SER:N	4:H:3407:MET:HG2	2.11	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
1:B:1385:ASP:CA	2:N:1841:GLN:NE2	2.37	0.64
2:N:1645:PRO:CG	2:N:1769:PRO:CD	2.01	0.64
5:R:1897:ILE:O	5:R:1900:TYR:N	2.30	0.64
5:R:1902:LEU:HD13	6:J:1139:LYS:CG	2.27	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
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
6:J:1145:HIS:HE1	6:J:1235:LEU:CD2	2.08	0.64
1:A:293:ALA:O	1:A:324:LYS:CE	2.45	0.64
1:D:3360:LEU:CD2	4:H:3402:ILE:CD1	2.05	0.64
1:D:3393:SER:OG	4:H:3394:HIS:HD2	1.80	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
5:R:1898:THR:N	6:J:1165:LYS:NZ	2.45	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
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:Q:902:LEU:HD11	6:I:139:LYS:HG2	1.80	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:C:2362:SER:OG	4:G:2402:ILE:CD1	2.46	0.64
1:D:3090:GLY:C	3:P:3677:ASP:CA	2.66	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
4:G:2404:THR:O	4:G:2407:MET:N	2.31	0.64
5:T:3894:ARG:HA	5:T:3897:ILE:HG13	1.80	0.64
1:D:3037:THR:CG2	1:D:3267:ARG:HG3	2.28	0.63
1:D:3089:TRP:CD2	3:P:3573:HIS:N	2.64	0.63
1:D:3256:PRO:HB3	3:P:3802:GLU:O	1.97	0.63
4:E:404:THR:O	4:E:407:MET:N	2.31	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
5:T:3900:TYR:OH	6:L:3163:SER:HB2	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
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
4:H:3404:THR:O	4:H:3407:MET:N	2.31	0.63
5:T:3884:THR:O	5:T:3888:MET:HG2	1.98	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
4:H:3402:ILE:C	4:H:3407:MET:HG3	2.19	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
2:N:1507:ASN:HD21	2:N:1562:HIS:CE1	2.15	0.63
2:N:1535:GLU:OE1	2:N:1740:PRO:HD2	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2037:THR:HG22	1:C:2038:LEU:H	1.63	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
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:1171:ALA:CA	2.62	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
1:A:249:ALA:HB2	2:M:806:TYR:CE2	2.34	0.63
2:M:672:PRO:CB	2:M:673:PRO:CD	2.70	0.63
5:Q:902:LEU:HD11	6:I:139:LYS:CE	2.17	0.63
2:M:573:HIS:HE1	2:M:729:VAL:CB	1.96	0.62
3:P:3640:LYS:HB2	3:P:3792:PRO:HD2	1.79	0.62
3:P:3672:PRO:HB3	3:P:3736:GLN:OE1	1.94	0.62
5:Q:910:PHE:C	5:Q:913:SER:OG	2.38	0.62
4:F:1404:THR:O	4:F:1407:MET:N	2.31	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
2:O:2671:MET:C	2:O:2673:PRO:HD3	2.18	0.62
4:F:1395:THR:C	4:F:1396:THR:HG23	2.19	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
2:N:1673:PRO:HG2	2:N:1743:PRO:CG	2.14	0.62
2:O:2639:GLU:CB	2:O:2769:PRO:HG2	2.27	0.62
2:O:2651:LEU:CD1	2:O:2768:VAL:HG21	2.26	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
6:K:2227:LYS:HB2	6:K:2227:LYS:HZ2	1.63	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
2:N:1514:PRO:HA	2:N:1553:GLN:HG3	1.81	0.62
2:N:1640:LYS:HB2	2:N:1792:PRO:HB2	1.81	0.62
1:C:2272:ALA:O	1:C:2273:VAL:HB	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
6:J:1168:LEU:HD22	6:J:1256:VAL:HG21	1.81	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
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
1:C:2090:GLY:HA3	2:O:2678:ARG:N	2.14	0.62
2:N:1646:GLN:HB2	3:P:3518:HIS:CE1	2.33	0.62
4:H:3406:ALA:HA	4:H:3409:TRP:HD1	1.65	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:1646:GLN:NE2	3:P:3518:HIS:CG	2.67	0.62
2:N:1672:PRO:HB2	2:N:1731:ASN:ND2	2.06	0.62
5:T:3910:PHE:HD1	5:T:3917:CYS:CA	2.13	0.62
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
4:E:432:LEU:HB3	4:E:436:PHE:HE2	1.65	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
2:N:1643:SER:H	3:P:3628:PRO:HG3	1.65	0.61
2:N:1788:TYR:CE2	1:D:3237:PRO:HG2	2.34	0.61
1:C:2037:THR:CG2	1:C:2038:LEU:N	2.63	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
2:N:1512:THR:O	2:N:1568:ARG:NH2	2.31	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
4:H:3432:LEU:HB3	4:H:3436:PHE:HE2	1.65	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
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
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
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
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: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: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
4:E:406:ALA:HA	4:E:409:TRP:HD1	1.65	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:O	5:T:3910:PHE:N	2.30	0.60
5:T:3907:THR:CA	5:T:3910:PHE:HD2	2.13	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
2:O:2527:SER:OG	3:P:3646:GLN:CD	2.25	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1911:LEU:HG	5:R:1913:SER:OG	2.01	0.60
4:G:2428:LEU:HD11	5:S:2895:ARG:CZ	2.31	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
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
6:J:1166:TYR:CB	6:J:1256:VAL:HG11	2.31	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
4:G:2403:SER:N	4:G:2407:MET:HG3	2.17	0.60
1:A:254:THR:HG22	2:M:806:TYR:CB	2.30	0.60
2:M:509:TYR:HA	2:M:512:THR:OG1	2.00	0.60
6:J:1166:TYR:CG	6:J:1256:VAL:HG11	2.37	0.60
1:A:254:THR:O	2:M:804:PRO:HG3	2.02	0.60
1:A:362:SER:CB	4:E:402:ILE:HG22	2.14	0.60
3:P:3507:ASN:ND2	3:P:3562:HIS:N	2.49	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
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
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
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
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:S:2905:GLY:O	5:S:2906:ALA:CB	2.48	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
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
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
5:R:1862:LEU:N	5:R:1863:TYR:CD2	2.70	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
4:H:3421:VAL:CB	5:T:3884:THR:CB	2.75	0.59
5:T:3863:TYR:N	5:T:3864:PRO:CD	2.65	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
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
4:H:3428:LEU:O	4:H:3432:LEU:HG	2.02	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
1:C:2089:TRP:CH2	2:O:2677:ASP:CA	2.81	0.59
4:F:1428:LEU:O	4:F:1432:LEU:HG	2.02	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
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
1:D:3386:HIS:HA	3:P:3842:MET:CA	2.02	0.59
3:P:3513:ARG:HH12	3:P:3731:ASN:HD22	0.69	0.59
5:Q:913:SER:CB	5:Q:917:CYS:HB3	2.31	0.59
4:F:1428:LEU:CD2	5:R:1895:ARG:NH2	2.66	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
3:P:3509:TYR:CD2	3:P:3556:ILE:HG13	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:428:LEU:O	4:E:432:LEU:HG	2.02	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: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
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
5:R:1873:VAL:O	5:R:1877:VAL:HG23	2.03	0.59
5:R:1910:PHE:CD2	5:R:1921:THR:CG2	2.86	0.59
5:R:1910:PHE:CA	5:R:1913:SER:CB	2.80	0.59
1:C:2089:TRP:CH2	2:O:2677:ASP:HA	2.37	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
6:I:240:GLU:HB2	6:K:2176:HIS:HA	1.84	0.59
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
1:D:3060:VAL:HG22	1:D:3102:GLN:HG3	1.85	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
6:K:2123:VAL:HG11	6:K:2146:VAL:HG12	1.85	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
5:Q:907:THR:C	5:Q:910:PHE:HD2	2.05	0.58
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:1918:VAL:HG23	5:R:1921:THR:HG23	1.85	0.58
4:G:2395:THR:O	4:G:2396:THR:C	2.40	0.58
5:T:3907:THR:C	5:T:3910:PHE:HD2	2.05	0.58
6:L:3227:LYS:HB2	6:L:3227:LYS:HZ2	1.65	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
1:D:3093:TYR:CD1	3:P:3674:ASP:O	2.55	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
2:M:513:ARG:HH21	2:M:673:PRO:CD	2.17	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
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
4:F:1432:LEU:HB3	4:F:1436:PHE:HE2	1.66	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:1521:ASP:HB2	2:O:2643:SER:CB	2.34	0.58
2:N:1647:HIS:CE1	1:D:3228:THR:OG1	2.57	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:2059:TYR:N	2:O:2744:ARG:CZ	2.67	0.57
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
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:I:123:VAL:HG11	6:I:146:VAL:HG12	1.85	0.57
1:B:1242:TYR:CB	2:O:2788:TYR:HH	2.08	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:911:LEU:HA	5:Q:913:SER:N	2.19	0.57
6:L:3123:VAL:HG11	6:L:3146:VAL:HG12	1.85	0.57
2:O:2517:ALA:HB1	2:O:2741:LEU:HB3	1.85	0.57
4:E:406:ALA:HA	4:E:409:TRP:CD1	2.39	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
2:M:672:PRO:HB3	2:M:736:GLN:NE2	2.15	0.57
1:B:1039:GLU:O	1:B:1128:SER:N	2.25	0.57
3:P:3509:TYR:HB3	3:P:3556:ILE:HG23	1.77	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: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
4:H:3406:ALA:HA	4:H:3409:TRP:CD1	2.39	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
5:S:2918:VAL:HG22	5:S:2920:THR:N	2.15	0.57
4:H:3408:SER:O	4:H:3412:LYS:HG3	2.04	0.57
5:T:3902:LEU:C	5:T:3903:THR:CG2	2.64	0.57
2:N:1513:ARG:CB	2:N:1514:PRO:CD	2.81	0.57
2:N:1788:TYR:CE1	1:D:3237:PRO:HG2	2.40	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
1:D:3249:ALA:HB2	3:P:3806:TYR:CZ	2.40	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
6:L:3208:THR:HG22	6:L:3245:ALA:HA	1.87	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
2:N:1549:GLN:NE2	2:N:1737:TYR:CZ	2.45	0.57
1:C:2297:THR:HG22	1:C:2298:ASP:N	2.19	0.57
2:O:2609:GLU:HG3	3:P:3642:HIS:CE1	2.39	0.57
1:D:3089:TRP:CZ2	3:P:3572:ASN:O	2.56	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
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
1:D:3388:VAL:CG1	3:P:3841:GLN:HA	2.33	0.57
3:P:3673:PRO:CD	3:P:3742:VAL:CG1	2.83	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
4:G:2406:ALA:HA	4:G:2409:TRP:CD1	2.39	0.57
2:M:547:LYS:NZ	2:M:758:PRO:O	2.19	0.56
1:C:2018:LEU:CD2	1:C:2368:GLN:CD	2.73	0.56
5:Q:918:VAL:HG22	5:Q:920:THR:N	2.19	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
1:C:2242:TYR:CE1	3:P:3814:LYS:HD3	2.40	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
4:H:3405:THR:O	4:H:3408:SER:N	2.38	0.56
1:A:291:VAL:HG13	1:C:2315:VAL:CG1	2.33	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
2:N:1542:THR:OG1	2:N:1654:SER:N	2.31	0.56
1:C:2016:LYS:HE3	1:C:2342:ALA:HB2	1.88	0.56
1:C:2089:TRP:CZ3	2:O:2677:ASP:HB2	2.38	0.56
1:C:2089:TRP:HH2	2:O:2573:HIS:HD2	1.53	0.56
1:C:2387:ILE:CG2	2:O:2840:PRO:CA	2.24	0.56
2:O:2509:TYR:HA	2:O:2512:THR:HG1	1.65	0.56
4:E:405:THR:O	4:E:408:SER:N	2.38	0.56
5:Q:918:VAL:HG12	5:Q:919:ARG:N	2.19	0.56
4:F:1406:ALA:HA	4:F:1409:TRP:CD1	2.39	0.56
5:S:2910:PHE:C	5:S:2911:LEU:HG	2.19	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:1609:GLU:C	2:O:2642:HIS:CE1	2.79	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
1:B:1393:SER:O	4:F:1394:HIS:CD2	2.58	0.56
2:N:1509:TYR:HB3	2:N:1556:ILE:CD1	2.35	0.56
5:R:1869:VAL:O	5:R:1873:VAL:HG23	2.04	0.56
4:G:2428:LEU:CD1	5:S:2895:ARG:NE	2.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:1253:LYS:HG3	6:J:1254: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
6:L:3253:LYS:HG3	6:L:3254:ASP:N	2.21	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
2:O:2527:SER:OG	3:P:3646:GLN:HG3	1.71	0.56
6:J:1188:LYS:HE3	6:J:1250:THR:HG21	1.87	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
1:D:3386:HIS:CA	3:P:3842:MET:CA	2.59	0.55
3:P:3672:PRO:CB	3:P:3736:GLN:OE1	2.53	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
6:J:1208:THR:HG22	6:J:1245:ALA:HA	1.87	0.55
2:N:1638:ARG:HB3	2:N:1794:LEU:CG	2.36	0.55
1:C:2028:VAL:CB	1:C:2329:ALA:HB1	2.30	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:88:MET:SD	2:M:743:PRO:HD2	2.45	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:297:THR:HG22	1:A:298:ASP:N	2.16	0.55
2:O:2640:LYS:HB2	2:O:2791:HIS:CB	2.36	0.55
1:D:3387:ILE:CA	3:P:3841:GLN:CA	2.75	0.55
5:T:3906:ALA:CB	5:T:3909:PRO:CG	2.84	0.55
5:T:3906:ALA:CB	5:T:3910:PHE:CE2	2.90	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
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
4:E:396:THR:O	4:E:397:LEU:CD2	2.55	0.55
5:Q:878:LEU:O	5:Q:882:VAL:HG23	2.07	0.55
4:F:1406:ALA:HB3	5:R:1849:HIS:CE1	2.41	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:B:1237:PRO:HG2	2:O:2788:TYR:CZ	2.41	0.55
2:N:1543:ASP:HB3	2:N:1655:THR:CB	2.36	0.55
2:N:1609:GLU:HB3	2:O:2642:HIS:HE1	1.66	0.55
1:C:2242:TYR:CD1	3:P:3814:LYS:HD3	2.40	0.55
1:C:2388:VAL:H	2:O:2840:PRO:C	2.10	0.55
2:O:2610:THR:HG22	3:P:3643:SER:HB3	1.83	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
6:I:208:THR:HG22	6:I:245:ALA:HA	1.87	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
4:H:3396:THR:O	4:H:3397:LEU:CD2	2.55	0.55
2:N:1814:LYS:CD	1:D:3242:TYR:CD1	2.70	0.55
2:O:2514:PRO:HB3	2:O:2553:GLN:OE1	2.07	0.55
4:F:1399:VAL:HG21	5:R:1866:MET:CE	2.37	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
2:M:573:HIS:CE1	2:M:729:VAL:CA	2.90	0.54
5:R:1900:TYR:CE2	6:J:1162:ARG:O	2.30	0.54
5:S:2897:ILE:CG2	5:S:2898:THR:H	2.08	0.54
2:N:1513:ARG:HB2	2:N:1514:PRO:HD2	1.90	0.54
2:N:1514:PRO:CG	2:N:1568:ARG:HG2	2.30	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2018:LEU:CD2	1:C:2368:GLN:OE1	2.56	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
1:D:3055:ILE:CG1	3:P:3740:PRO:CG	2.68	0.54
1:D:3088:MET:SD	3:P:3675:THR:HA	2.48	0.54
3:P:3514:PRO:HD3	3:P:3568:ARG:CZ	2.38	0.54
3:P:3675:THR:O	3:P:3728:ALA:HB1	2.07	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:C	5:S:2900:TYR:HD2	2.10	0.54
2:M:573:HIS:CE1	2:M:729:VAL:O	2.60	0.54
1:D:3360:LEU:CD2	4:H:3402:ILE:CG1	2.84	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
2:M:538:ARG:HB2	2:M:547:LYS:HB3	1.89	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
1:A:362:SER:OG	4:E:402:ILE:CG2	2.49	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
1:D:3386:HIS:C	3:P:3842:MET:N	2.61	0.54
1:D:3393:SER:CB	4:H:3394:HIS:HD2	2.19	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
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
1:C:2018:LEU:HD21	1:C:2368:GLN:CD	2.28	0.54
5:S:2853:HIS:C	5:S:2855:ILE:N	2.61	0.54
6:J:1166:TYR:HB3	6:J:1256:VAL:CG1	2.37	0.54
1:C:2388:VAL:N	2:O:2841:GLN:N	2.55	0.54
2:O:2538:ARG:HB2	2:O:2547:LYS:HB3	1.89	0.54
4:H:3406:ALA:CA	4:H:3409:TRP:HD1	2.21	0.54
1:B:1290:VAL:C	1:B:1292:ASP:H	2.12	0.54
1:C:2387:ILE:HG13	2:O:2781:ASN:H	1.73	0.54
2:O:2637:GLY:C	2:O:2832:ASN:HD21	2.01	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:402:ILE:O	4:E:407:MET:HG3	2.08	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
3:P:3510:LYS:C	3:P:3560:ASP:CG	2.67	0.54
4:E:394:HIS:O	4:E:395:THR:C	2.47	0.54
6:L:3157:LYS:HA	6:L:3157:LYS:CE	2.30	0.54
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
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: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
3:P:3513:ARG:O	3:P:3553:GLN:OE1	2.26	0.53
4:E:406:ALA:CA	4:E:409:TRP:HD1	2.21	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
6:I:254:ASP:OD1	6:I:255:ILE:HG13	2.09	0.53
1:B:1236:ALA:HB1	2:O:2775:THR:OG1	2.08	0.53
2:N:1672:PRO:CG	2:N:1731:ASN:CB	2.87	0.53
1:D:3089:TRP:CE3	3:P:3573:HIS:HA	2.44	0.53
4:E:432:LEU:CD2	5:Q:894:ARG:CG	2.79	0.53
6:L:3227:LYS:NZ	6:L:3227:LYS:CB	2.71	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
1:D:3130:SER:HA	1:D:3148:ALA:H	1.74	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
2:M:731:ASN:C	2:M:733:LYS:N	2.61	0.53
1:B:1386:HIS:ND1	2:N:1841:GLN:O	2.41	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
5:T:3902:LEU:CD1	6:L:3138:ASP:OD2	2.50	0.53
2:M:731:ASN:C	2:M:733:LYS:H	2.12	0.53
1:C:2092:ALA:O	2:O:2678:ARG:NH2	2.42	0.53
2:O:2674:ASP:O	2:O:2676:PRO:HD3	2.08	0.53
3:P:3543:ASP:CG	3:P:3655:THR:HB	2.29	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)
4:G:2428:LEU:CG	5:S:2895:ARG:HE	2.20	0.53
6:L:3254:ASP:OD1	6:L:3255:ILE:HG13	2.09	0.53
1:A:291:VAL:CG2	1:C:2315:VAL:HG23	2.19	0.53
2:N:1638:ARG:NE	2:N:1794:LEU:CG	2.65	0.53
1:D:3273:VAL:HG13	1:D:3273:VAL:O	2.09	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: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
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
5:Q:900:TYR:HH	6:I:163:SER:CB	2.15	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
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:N	3:P:3515:TYR:CD1	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
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
4:E:432:LEU:HD12	5:Q:894:ARG:NH1	2.24	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
2:M:573:HIS:NE2	2:M:729:VAL:N	2.57	0.52
1:D:3387:ILE:HG23	3:P:3840:PRO:CB	2.36	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
2:N:1509:TYR:HA	2:N:1512:THR:HG1	1.74	0.52
1:C:2009:ASN:HB2	1:C:2274:GLY:O	2.08	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
5:S:2901:GLU:CD	5:S:2902:LEU:HD12	2.30	0.52
6:J:1254:ASP:OD1	6:J:1255:ILE:HG13	2.08	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
6:K:2254:ASP:OD1	6:K:2255:ILE:HG13	2.09	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
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
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:O	1:A:266:VAL:HG23	2.09	0.52
2:N:1535:GLU:CD	2:N:1741:LEU:CG	2.78	0.52
1:C:2116:THR:CG2	2:O:2763:ASN:HD22	2.17	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
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
6:I:157:LYS:HA	6:I:157:LYS:CE	2.30	0.51
6:L:3252:ASN:HB2	6:L:3255:ILE:O	2.10	0.51
1:C:2034:LEU:HD12	1:C:2132:LYS:HG2	1.92	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
6:K:2252:ASN:HB2	6:K:2255:ILE:O	2.10	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
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
6:I:252:ASN:HB2	6:I:255:ILE:O	2.10	0.51
2:M:698:ARG:HB2	2:M:730:THR:HG21	1.90	0.51
1:D:3266:VAL:HG23	1:D:3266:VAL:O	2.08	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
6:K:2136:VAL:HG12	6:K:2141:MET:HG3	1.93	0.51
1:B:1013:VAL:CG2	1:B:1391:PRO:HB2	2.40	0.51
1:B:1290:VAL:C	1:B:1292:ASP:N	2.63	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
1:C:2242:TYR:CB	3:P:3814:LYS:NZ	2.72	0.51
5:Q:915:LEU:O	5:Q:916:CYS:CB	2.51	0.51
2:N:1549:GLN:NE2	2:N:1737:TYR:HE2	1.85	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
5:T:3856:ILE:HG23	5:T:3859:TYR:CE2	2.46	0.51
6:I:257:THR:HG22	6:I:258:LYS:H	1.75	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
4:G:2396:THR:C	4:G:2397:LEU:HG	2.30	0.51
5:S:2900:TYR:OH	6:K:2163:SER:HB2	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:J:1254:ASP:CG	6:J:1255:ILE:HG13	2.31	0.51
3:P:3510:LYS:CG	3:P:3560:ASP:O	2.58	0.51
6:K:2254:ASP:CG	6:K:2255:ILE:HG13	2.31	0.51
1:C:2092:ALA:CA	2:O:2678:ARG:HH21	2.24	0.51
1:D:3091:GLY:CA	3:P:3676:PRO:CB	2.87	0.51
3:P:3545:THR:HG1	3:P:3655:THR:HG1	1.56	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
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
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: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
5:Q:908:VAL:C	5:Q:910:PHE:H	2.15	0.50
6:I:262:GLU:OE1	6:K:2175:VAL:HG13	2.10	0.50
1:A:41:THR:HG21	1:B:1125:HIS:HB2	1.94	0.50
2:N:1672:PRO:CG	2:N:1731:ASN:HB2	2.41	0.50
1:C:2387:ILE:CG2	2:O:2840:PRO:CB	2.73	0.50
2:O:2639:GLU:OE2	2:O:2769:PRO:C	2.48	0.50
5:Q:901:GLU:OE2	6:I:170:CYS:SG	2.69	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:136:VAL:HG12	6:I:141:MET:HG3	1.93	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
3:P:3513:ARG:C	3:P:3553:GLN:OE1	2.49	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:HB2	6:L:3227:LYS:HZ3	1.75	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
6:K:2188:LYS:CE	6:K:2250:THR:HG21	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:M:639:GLU:CD	2:M:832:ASN:CB	2.66	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
5:S:2917:CYS:HB2	5:S:2918:VAL:CB	2.25	0.50
6:K:2250:THR:HG22	6:K:2251:TRP:N	2.26	0.50
1:A:40:PRO:HD2	1:A:266:VAL:O	2.12	0.50
1:A:192:PHE:O	1:B:1152:HIS:HA	2.11	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
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
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
6:J:1250:THR:HG22	6:J:1251:TRP:N	2.27	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
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
2:O:2639:GLU:OE2	2:O:2771:ALA:N	2.43	0.50
1:D:3058:PRO:HD2	3:P:3742:VAL:O	2.12	0.50
3:P:3510:LYS:CA	3:P:3560:ASP:CG	2.76	0.50
5:Q:897:ILE:CG2	6:I:165:LYS:HZ1	2.25	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
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
1:A:297:THR:O	1:A:298:ASP:O	2.30	0.49
2:M:641:PHE:CZ	2:M:768:VAL:HG12	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1649:LYS:HB2	2:N:1832:ASN:HB3	1.93	0.49
1:C:2009:ASN:CB	1:C:2274:GLY:O	2.60	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
6:K:2257:THR:HG22	6:K:2258:LYS:H	1.76	0.49
1:A:89:TRP:CE2	2:M:676:PRO:HD2	2.45	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
6:J:1166:TYR:CD1	6:J:1256:VAL:CG1	2.89	0.49
1:A:129:ALA:O	1:A:130:SER:CB	2.53	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
6:I:250:THR:HG22	6:I:251:TRP:N	2.26	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
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
6:I:262:GLU:OE1	6:K:2175:VAL:HG12	2.12	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
1:D:3040:PRO:HD2	1:D:3266:VAL:O	2.12	0.49
5:Q:909:PRO:O	5:Q:912:LEU:O	2.31	0.49
4:F:1394:HIS:O	4:F:1395:THR:O	2.31	0.49
2:M:540:GLU:HB2	2:M:656:TYR:OH	2.13	0.49
1:D:3089:TRP:CD2	3:P:3573:HIS:CA	2.93	0.49
3:P:3507:ASN:OD1	3:P:3561:SER:C	2.49	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
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
6:L:3250:THR:HG22	6:L:3251:TRP:N	2.26	0.49
1:B:1382:PRO:HB3	5:R:1843:SER:CA	2.43	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
4:F:1405:THR:O	4:F:1406:ALA:C	2.51	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
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
1:C:2237:PRO:CG	3:P:3788:TYR:CE2	2.94	0.49
1:D:3089:TRP:CE3	3:P:3573:HIS:CA	2.91	0.49
3:P:3640:LYS:HB2	3:P:3792:PRO:CG	2.43	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
6:K:2227:LYS:NZ	6:K:2227:LYS:CB	2.71	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
1:D:3254:THR:HG22	3:P:3806:TYR:HB2	1.95	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
6:L:3143:PRO:HB2	6:L:3146:VAL:HG23	1.95	0.49
1:A:134:ARG:O	1:A:135:VAL:HG23	2.13	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
6:L:3227:LYS:HZ1	6:L:3229:ARG:CZ	2.25	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)
1:C:2386:HIS:CA	5:S:2843:SER:N	2.32	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
4:G:2394:HIS:O	4:G:2395:THR:OG1	2.30	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
6:J:1143:PRO:HB2	6:J:1146:VAL:HG23	1.95	0.48
1:A:129:ALA:CB	1:A:166:MET:HG2	2.43	0.48
1:C:2386:HIS:HB2	5:S:2843:SER:HB3	1.94	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
4:G:2405:THR:O	4:G:2406:ALA:C	2.51	0.48
5:S:2910:PHE:O	5:S:2913:SER:HB2	2.12	0.48
2:M:677:ASP:OD2	2:M:679:THR:OG1	2.31	0.48
1:B:1040:PRO:CA	1:B:1127:ALA:HA	2.37	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
2:O:2821:VAL:HG12	2:O:2840:PRO:CD	2.32	0.48
4:E:395:THR:O	4:E:396:THR:O	2.31	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
6:K:2145:HIS:NE2	6:K:2267:TRP:O	2.47	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
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
5:S:2901:GLU:N	5:S:2902:LEU:CG	2.61	0.48
2:M:513:ARG:NH2	2:M:673:PRO:O	2.47	0.48
2:M:672:PRO:CB	2:M:736:GLN:HE21	2.18	0.48
2:N:1514:PRO:HG3	2:N:1568:ARG:CG	2.33	0.48
2:N:1775:THR:OG1	1:D:3236:ALA:CB	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
4:F:1396:THR:OG1	4:F:1396:THR:O	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
4:G:2405:THR:OG1	4:G:2406:ALA:N	2.46	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
2:N:1602:LEU:HD11	2:N:1759:PHE:CE1	2.45	0.48
2:N:1639:GLU:CD	2:N:1793:THR:HG23	2.34	0.48
2:N:1673:PRO:HD2	2:N:1742:VAL:CG1	2.44	0.48
1:C:2282:ILE:HG23	1:C:2283:PRO:HD2	1.95	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
4:E:432:LEU:C	4:E:436:PHE:CD2	2.86	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
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
4:H:3405:THR:O	4:H:3406:ALA:C	2.51	0.48
5:T:3906:ALA:CA	5:T:3910:PHE:CD2	2.97	0.48
6:K:2227:LYS:HB2	6:K:2227:LYS:HZ3	1.76	0.48
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
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
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
4:F:1432:LEU:C	4:F:1436:PHE:CD2	2.86	0.47
4:F:1433:CYS:HA	4:F:1436:PHE:HD2	1.79	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
2:N:1670:HIS:CG	2:N:1671:MET:N	2.80	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
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
6:K:2190:GLU:HG2	6:K:2203:SER:HA	1.97	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
3:P:3509:TYR:CB	3:P:3556:ILE:CG1	2.70	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
2:M:507:ASN:ND2	2:M:562:HIS:NE2	2.61	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
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
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
5:T:3900:TYR:CD2	5:T:3900:TYR:C	2.87	0.47
6:I:157:LYS:HE2	6:I:157:LYS:CA	2.33	0.47
1:B:1095:PHE:CA	2:N:1700:LYS:HE2	2.20	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
5:T:3902:LEU:O	5:T:3903:THR:OG1	2.30	0.47
6:L:3190:GLU:HG2	6:L:3203:SER:HA	1.96	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
4:G:2435:SER:O	4:G:2439:HIS:CD2	2.68	0.47
5:S:2911:LEU:CG	5:S:2918:VAL:O	2.62	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
5:T:3856:ILE:CB	5:T:3859:TYR:CE2	2.98	0.47
1:A:152:HIS:HD2	1:B:1192:PHE:HD2	1.63	0.47
1:B:1090:GLY:HA3	2:N:1676:PRO:HB3	1.97	0.47
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:B:1383:PRO:HB2	2:N:1841:GLN:NE2	2.15	0.47
2:N:1604:ARG:CD	3:P:3524:GLU:O	2.61	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
2:O:2673:PRO:HA	2:O:2732:HIS:CD2	2.50	0.47
2:O:2731:ASN:O	2:O:2733:LYS:N	2.44	0.47
1:D:3060:VAL:H	3:P:3743:PRO:HB3	1.79	0.47
3:P:3541:ALA:HB1	3:P:3655:THR:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:3638:ARG:HH21	3:P:3831:GLY:H	1.62	0.47
3:P:3638:ARG:HH21	3:P:3831:GLY:N	2.12	0.47
4:E:435:SER:O	4:E:439:HIS:CD2	2.68	0.47
5:Q:856:ILE:CB	5:Q:859:TYR:CE2	2.98	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
4:F:1432:LEU:C	4:F:1436:PHE:HD2	2.18	0.47
5:S:2910:PHE:CA	5:S:2911:LEU:N	2.76	0.47
4:H:3435:SER:O	4:H:3439:HIS:CD2	2.68	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
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
1:D:3057:SER:N	3:P:3739:SER:O	2.47	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
6:J:1157:LYS:HE2	6:J:1157:LYS:CA	2.33	0.47
1:A:15:TYR:CD1	4:E:394:HIS:HE1	2.32	0.47
2:N:1513:ARG:HE	2:N:1736:GLN:NE2	2.12	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
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
2:M:639:GLU:CG	2:M:832:ASN:ND2	2.77	0.46
1:B:1034:LEU:HB2	1:B:1132:LYS:HB3	1.96	0.46
2:N:1698:ARG:O	2:N:1727:ALA:HA	2.15	0.46
1:C:2297:THR:O	1:C:2298:ASP:C	2.53	0.46
4:E:432:LEU:CD2	5:Q:894:ARG:CD	2.84	0.46
5:Q:854:GLU:O	5:Q:857:LEU:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:Q:897:ILE:HG21	6:I:165:LYS:HZ3	1.80	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
4:G:2432:LEU:C	4:G:2436:PHE:CD2	2.86	0.46
5:S:2851:HIS:O	5:S:2852:PRO:C	2.54	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
6:K:2227:LYS:HZ1	6:K:2229:ARG:CZ	2.27	0.46
1:A:129:ALA:HB1	1:A:166:MET:CG	2.44	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
1:D:3254:THR:HG22	3:P:3806:TYR:CG	2.50	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: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
1:C:2018:LEU:HD21	1:C:2368:GLN:OE1	2.15	0.46
2:O:2674:ASP:HB3	2:O:2729:VAL:O	2.16	0.46
1:D:3294:PRO:HG3	1:D:3324:LYS:HG3	1.96	0.46
5:R:1852:PRO:O	5:R:1854:GLU:N	2.48	0.46
4:H:3432:LEU:C	4:H:3436:PHE:CD2	2.86	0.46
5:T:3872:SER:O	5:T:3876:PHE:HD2	1.96	0.46
5:Q:906:ALA:CB	5:Q:907:THR:C	2.79	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
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
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
6:L:3205:GLY:O	6:L:3206:ARG:HG3	2.16	0.46
1:D:3173:PHE:CZ	1:D:3261:ILE:HD12	2.51	0.46
3:P:3673:PRO:HG3	3:P:3743:PRO:HD2	1.98	0.46
5:R:1900:TYR:CD2	5:R:1900:TYR:C	2.87	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
1:A:273:VAL:O	1:A:273:VAL:HG13	2.15	0.46
2:N:1604:ARG:HE	3:P:3524:GLU:C	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2092:ALA:N	2:O:2678:ARG:NH2	2.63	0.46
2:O:2639:GLU:HA	2:O:2791:HIS:CE1	2.40	0.46
1:D:3388:VAL:O	3:P:3840:PRO:C	2.54	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
5:Q:852:PRO:O	5:Q:854:GLU:N	2.48	0.46
4:F:1399:VAL:HG21	5:R:1866:MET:HE2	1.96	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
5:Q:906:ALA:HB2	5:Q:909:PRO:HD2	0.61	0.46
4:G:2428:LEU:HG	5:S:2895:ARG:HH21	1.80	0.46
5:S:2862:LEU:N	5:S:2863:TYR:HE2	2.07	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
1:C:2018:LEU:CD1	1:C:2368:GLN:OE1	2.64	0.46
2:O:2636:ILE:HG22	2:O:2768:VAL:HG11	1.97	0.46
1:D:3058:PRO:HD2	3:P:3742:VAL:C	2.36	0.46
1:D:3090:GLY:CA	3:P:3677:ASP:CA	2.67	0.46
4:E:426:LEU:O	4:E:430:VAL:HG23	2.15	0.46
4:F:1400:GLN:H	4:F:1400:GLN:HG2	1.61	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
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
6:J:1257:THR:HG22	6:J:1258:LYS:N	2.31	0.45
1:A:110:LYS:HG3	1:A:213:VAL:HG11	1.99	0.45
2:M:672:PRO:CA	2:M:736:GLN:CB	2.90	0.45
1:C:2129:ALA:O	1:C:2147:TYR:HD1	1.98	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
2:M:538:ARG:HB3	2:M:656:TYR:OH	2.15	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
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
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
4:E:427:ILE:HG21	5:Q:895:ARG:NH2	2.31	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
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:3036:VAL:O	1:D:3269:VAL:HA	2.17	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:2906:ALA:CB	5:S:2908:VAL:HB	2.44	0.45
5:S:2907:THR:H	5:S:2921:THR:HG22	1.74	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
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
2:O:2511:ALA:O	2:O:2735:TRP:N	2.46	0.45
4:E:405:THR:OG1	4:E:406:ALA:N	2.46	0.45
4:F:1403:SER:HB3	5:R:1858:TYR:OH	2.16	0.45
4:H:3394:HIS:O	4:H:3395:THR:OG1	2.30	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
1:D:3055:ILE:CD1	3:P:3740:PRO:HG3	2.47	0.45
1:D:3093:TYR:HD1	3:P:3674:ASP:O	1.97	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
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
2:N:1638:ARG:NH2	2:N:1794:LEU:CG	2.73	0.45
1:C:2359:ALA:HB3	4:G:2395:THR:HB	1.98	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
2:N:1516:LEU:HD12	2:N:1570:MET:CG	2.47	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
1:C:2089:TRP:CH2	2:O:2573:HIS:HD2	2.34	0.44
5:Q:902:LEU:HD12	6:I:139:LYS:HG2	1.96	0.44
5:T:3916:CYS:SG	5:T:3919:ARG:O	2.75	0.44
6:I:120:ILE:HD11	6:I:222:PRO:HG3	1.98	0.44
6:I:136:VAL:HG22	6:I:184:PHE:HD2	1.82	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
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: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:HE2	6:L:3157:LYS:CA	2.33	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:1906:ALA:N	5:R:1908:VAL:HG23	2.33	0.44
5:R:1907:THR:O	5:R:1910:PHE:HB2	2.18	0.44
6:L:3253:LYS:HD2	6:L:3254:ASP:OD1	2.17	0.44
1:D:3058:PRO:C	3:P:3743:PRO:HA	2.30	0.44
1:D:3388:VAL:CB	3:P:3841:GLN:CA	2.64	0.44
3:P:3673:PRO:CG	3:P:3742:VAL:CG1	2.94	0.44
5:R:1875:SER:HA	5:R:1878:LEU:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
6:L:3124:LYS:HD2	6:L:3151:ASP:HB2	2.00	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
5:R:1856:ILE:CB	5:R:1859:TYR:CE2	2.98	0.44
5:T:3847:THR:OG1	5:T:3857:LEU:CD1	2.66	0.44
5:T:3854:GLU:O	5:T:3857:LEU:N	2.48	0.44
6:K:2124:LYS:HD2	6:K:2151:ASP:HB2	2.00	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
2:N:1788:TYR:CZ	1:D:3237:PRO:HG2	2.52	0.44
1:C:2131:ALA:C	1:C:2132:LYS:N	2.71	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
6:I:253:LYS:HD2	6:I:254:ASP:OD1	2.17	0.44
2:M:638:ARG:HH21	2:M:829:THR:CB	2.31	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
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
1:D:3129:ALA:O	1:D:3148:ALA:N	2.50	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
6:L:3231:VAL:O	6:L:3250:THR:HG23	2.18	0.44
2:M:638:ARG:NH2	2:M:796:SER:OG	2.32	0.44
1:B:1198:GLY:HA3	2:O:2786:LEU:HD22	1.99	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
6:K:2166:TYR:HA	6:K:2258:LYS:HD2	1.99	0.44
2:N:1524:GLU:OE1	2:O:2592:THR:HB	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:D:3088:MET:HE2	3:P:3675:THR:CB	2.47	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
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
6:J:1231:VAL:O	6:J:1250:THR:HG23	2.18	0.43
2:N:1542:THR:HG21	2:N:1654:SER:OG	2.15	0.43
1:C:2110:LYS:HG3	1:C:2213:VAL:HG11	1.99	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
2:N:1602:LEU:CD2	2:N:1759:PHE:CD2	3.01	0.43
1:C:2179:VAL:HG21	1:C:2266:VAL:HG11	2.00	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:J:1227:LYS:HZ1	6:J:1229:ARG:CZ	2.31	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:F:1409:TRP:CG	5:R:1851:HIS:CE1	3.02	0.43
5:R:1847:THR:OG1	5:R:1857:LEU:HD13	2.17	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
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
6:J:1157:LYS:HA	6:J:1157:LYS:CE	2.30	0.43
1:A:129:ALA:HB1	1:A:148:ALA:CB	2.38	0.43
2:M:573:HIS:O	2:M:675:THR:OG1	2.02	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
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
1:C:2131:ALA:CB	1:C:2132:LYS:N	2.76	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
4:G:2402:ILE:HG23	4:G:2404:THR:HG21	1.45	0.43
5:S:2910:PHE:HE1	5:S:2921:THR:HB	1.55	0.43
6:L:3188:LYS:NZ	6:L:3250:THR:HG21	2.34	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
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
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:J:1254:ASP:OD2	6:J:1255:ILE:HG13	2.19	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
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: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
5:R:1901:GLU:HA	6:J:1161:LYS:O	2.18	0.43
2:N:1788:TYR:CD2	1:D:3237:PRO:HB2	2.53	0.43
1:D:3093:TYR:HE1	3:P:3674:ASP:H	1.65	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
4:F:1428:LEU:CD2	5:R:1891:CYS:HB3	2.49	0.42
5:R:1849:HIS:CE1	5:R:1855:ILE:HG12	2.27	0.42
5:R:1900:TYR:HD2	5:R:1901:GLU:N	2.16	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
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
1:A:290:VAL:HG11	1:C:2305:ALA:HB2	2.01	0.42
2:M:519:CYS:HB3	2:M:522:CYS:SG	2.59	0.42
2:N:1788:TYR:CE2	1:D:3237:PRO:CG	2.85	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
4:F:1424:ALA:HB1	5:R:1888:MET:SD	2.53	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
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
1:A:253:HIS:O	2:M:798:ARG:HD3	2.20	0.42
2:M:639:GLU:OE1	2:M:769:PRO:O	2.37	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:R:1898:THR:HG22	6:J:1166:TYR:CE2	2.55	0.42
5:S:2890:VAL:O	5:S:2894:ARG:HG3	2.19	0.42
2:N:1541:ALA:N	2:N:1656:TYR:HE2	1.84	0.42
2:N:1646:GLN:HE21	3:P:3518:HIS:CG	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1764:VAL:HB	2:N:1765:THR:H	1.73	0.42
1:C:2091:GLY:C	2:O:2678:ARG:HE	2.22	0.42
2:O:2514:PRO:CB	2:O:2553:GLN:OE1	2.68	0.42
5:R:1902:LEU:CD1	6:J:1171:ALA:C	2.87	0.42
6:I:238:ALA:HB2	6:I:264:ALA:HA	2.01	0.42
6:I:253:LYS:HG3	6:I:254:ASP:H	1.84	0.42
6:L:3254:ASP:OD2	6:L:3255:ILE:HG13	2.19	0.42
1:A:362:SER:CB	4:E:402:ILE:HD13	2.50	0.42
1:A:387:ILE:CG1	2:M:781:ASN:OD1	2.67	0.42
1:D:3387:ILE:HA	3:P:3841:GLN:C	2.40	0.42
3:P:3729:VAL:HG12	3:P:3730:THR:N	2.35	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
4:H:3424:ALA:O	4:H:3428:LEU:HG	2.20	0.42
5:T:3850:GLY:HA2	5:T:3851:HIS:C	2.38	0.42
6:I:253:LYS:HD2	6:I:254:ASP:HB3	2.01	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
1:D:3089:TRP:HE3	3:P:3675:THR:HG21	1.85	0.42
3:P:3640:LYS:HB2	3:P:3792:PRO:CB	2.50	0.42
3:P:3672:PRO:HD2	3:P:3731:ASN:O	2.20	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
2:N:1516:LEU:HG	2:N:1570:MET:HB3	2.02	0.42
2:N:1542:THR:N	2:N:1654:SER:O	2.49	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
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
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
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
4:G:2428:LEU:HD11	5:S:2895:ARG:NE	2.32	0.42
5:S:2872:SER:O	5:S:2876:PHE:HD2	1.97	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
1:A:93:TYR:OH	2:M:744:ARG:O	2.27	0.42
1:B:1034:LEU:CD1	1:B:1132:LYS:HE2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:1541:ALA:N	2:N:1656:TYR:OH	2.52	0.42
1:C:2088:MET:HE3	2:O:2743:PRO:HD3	1.57	0.42
2:O:2636:ILE:HG22	2:O:2768:VAL:CG1	2.50	0.42
5:Q:882:VAL:O	5:Q:886:VAL:HG23	2.20	0.42
6:J:1188:LYS:NZ	6:J:1250:THR:HG21	2.34	0.42
1:B:1294:PRO:HB3	1:B:1324:LYS:HG3	2.02	0.42
2:N:1649:LYS:O	2:N:1768:VAL:HG22	2.19	0.42
1:D:3129:ALA:HB3	1:D:3166:MET:HG2	2.00	0.42
4:F:1428:LEU:CD2	5:R:1895:ARG:HH21	2.29	0.42
5:R:1890:VAL:O	5:R:1894:ARG:HG3	2.19	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
6:K:2157:LYS:HA	6:K:2157:LYS:CE	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
1:A:255:ALA:C	2:M:804:PRO:HG3	2.40	0.41
2:M:638:ARG:HH21	2:M:829:THR:HG22	1.84	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
5:T:3882:VAL:O	5:T:3886:VAL:HG23	2.20	0.41
6:L:3255:ILE:CG2	6:L:3256:VAL:N	2.82	0.41
2:M:632:ASP:O	2:M:633:PRO:C	2.57	0.41
1:B:1299:MET:HA	1:B:1319:LYS:O	2.20	0.41
1:C:2386:HIS:O	2:O:2841:GLN:HA	2.17	0.41
2:O:2542:THR:HG1	2:O:2654:SER:N	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
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:597:MET:HG2	2:M:660:THR:HG23	2.01	0.41
1:B:1041:THR:O	1:B:1042:LEU:CG	2.68	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
1:C:2041:THR:O	1:C:2042:LEU:CG	2.67	0.41
2:O:2676:PRO:HA	2:O:2728:ALA:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
5:T:3906:ALA:CB	5:T:3910:PHE:HD2	2.32	0.41
6:K:2238:ALA:HB2	6:K:2264:ALA:HA	2.01	0.41
1:B:1237:PRO:HB2	2:O:2788:TYR:CE2	2.56	0.41
3:P:3513:ARG:HB2	3:P:3514:PRO:HD2	2.01	0.41
3:P:3513:ARG:HH21	3:P:3736:GLN:HE22	1.67	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
4:G:2434:VAL:HG12	4:G:2438:ARG:NE	2.36	0.41
5:T:3910:PHE:O	5:T:3913:SER:OG	2.38	0.41
6:J:1253:LYS:HG3	6:J:1254:ASP:H	1.84	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
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:C:2272:ALA:O	1:C:2273:VAL:CB	2.64	0.41
1:D:3229:VAL:HG12	3:P:3741:LEU:O	2.21	0.41
4:E:402:ILE:HG12	4:E:402:ILE:H	1.53	0.41
4:E:424:ALA:O	5:Q:891:CYS:SG	2.78	0.41
4:F:1424:ALA:O	4:F:1428:LEU:HG	2.20	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
2:M:639:GLU:CB	2:M:832:ASN:HD22	2.07	0.41
4:E:430:VAL:O	4:E:434:VAL:HG23	2.21	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:28:VAL:HB	1:A:342:ALA:HB1	2.03	0.41
1:A:41:THR:HG21	1:B:1125:HIS:CB	2.51	0.41
1:A:132:LYS:HB2	1:A:145:THR:OG1	2.20	0.41
1:A:284:GLU:HA	1:A:287:PHE:HD2	1.86	0.41
1:A:360:LEU:CD2	4:E:401:ASP:CG	2.60	0.41
2:M:674:ASP:HB3	2:M:729:VAL:O	2.21	0.41
2:N:1669:VAL:HA	2:N:1737:TYR:HA	2.01	0.41
1:D:3057:SER:C	3:P:3742:VAL:O	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3297:THR:HG22	1:D:3298:ASP:N	2.31	0.41
1:D:3386:HIS:C	3:P:3842:MET:HA	2.41	0.41
1:D:3386:HIS:CA	3:P:3842:MET:HA	2.47	0.41
1:D:3389:ASN:O	3:P:3839:TRP:CE3	2.73	0.41
3:P:3507:ASN:ND2	3:P:3562:HIS:H	2.19	0.41
3:P:3543:ASP:OD2	3:P:3655:THR:OG1	2.38	0.41
3:P:3639:GLU:CG	3:P:3791:HIS:CD2	3.03	0.41
5:R:1872:SER:O	5:R:1876:PHE:HD2	1.97	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
4:H:3434:VAL:HG12	4:H:3438:ARG:NE	2.36	0.41
5:T:3902:LEU:HD21	6:L:3139:LYS:HZ3	1.76	0.41
5:T:3913:SER:OG	5:T:3917:CYS:CB	2.67	0.41
6:K:2136:VAL:O	6:K:2136:VAL:HG13	2.21	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
1:A:31:MET:HA	1:A:135:VAL:HG22	2.02	0.41
1:A:362:SER:H	4:E:402:ILE:HD12	0.60	0.41
1:B:1237:PRO:CG	2:O:2788:TYR:CE2	3.05	0.41
3:P:3669:VAL:HA	3:P:3737:TYR:HA	2.02	0.41
3:P:3672:PRO:HG2	3:P:3731:ASN:O	2.21	0.41
4:G:2419:LEU:O	4:G:2423:VAL:HG23	2.21	0.41
5:S:2917:CYS:N	5:S:2918:VAL:HB	2.29	0.41
6:K:2253:LYS:HG3	6:K:2254:ASP:H	1.84	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
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:H:3430:VAL:O	4:H:3434:VAL:HG23	2.21	0.40
6:I:136:VAL:O	6:I:136:VAL:HG13	2.21	0.40
6:I:185:THR:CG2	6:I:229:ARG:HB3	2.46	0.40
1:C:2386:HIS:O	2:O:2841:GLN:CA	2.68	0.40
2:O:2710:LEU:HD11	2:O:2730:THR:HG21	2.03	0.40
5:Q:901:GLU:O	5:Q:902:LEU:CD2	2.69	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
5:Q:846:GLY:O	5:Q:847:THR:C	2.60	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

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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
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
4:H:3419:LEU:O	4:H:3423:VAL:HG23	2.21	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%)	8 39
1	B	387/393 (98%)	357 (92%)	22 (6%)	8 (2%)	5 30
1	C	389/393 (99%)	357 (92%)	26 (7%)	6 (2%)	8 39
1	D	391/393 (100%)	368 (94%)	19 (5%)	4 (1%)	13 49
2	M	334/336 (99%)	299 (90%)	30 (9%)	5 (2%)	8 39
2	N	334/336 (99%)	295 (88%)	29 (9%)	10 (3%)	3 22
2	O	334/336 (99%)	297 (89%)	29 (9%)	8 (2%)	5 27
3	P	334/336 (99%)	291 (87%)	36 (11%)	7 (2%)	5 30
4	E	44/46 (96%)	35 (80%)	4 (9%)	5 (11%)	0 6
4	F	42/46 (91%)	35 (83%)	3 (7%)	4 (10%)	0 8
4	G	42/46 (91%)	35 (83%)	3 (7%)	4 (10%)	0 8
4	H	44/46 (96%)	35 (80%)	5 (11%)	4 (9%)	0 8

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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%)	9 40
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%)	4 18

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 (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	329/329 (100%)	312 (95%)	17 (5%)	19 41
1	B	329/329 (100%)	313 (95%)	16 (5%)	21 42
1	C	329/329 (100%)	313 (95%)	16 (5%)	21 42
1	D	329/329 (100%)	314 (95%)	15 (5%)	23 45
2	M	298/298 (100%)	284 (95%)	14 (5%)	22 44
2	N	298/298 (100%)	285 (96%)	13 (4%)	24 46
2	O	298/298 (100%)	284 (95%)	14 (5%)	22 44
3	P	298/298 (100%)	282 (95%)	16 (5%)	18 40
4	E	38/38 (100%)	35 (92%)	3 (8%)	10 29
4	F	38/38 (100%)	34 (90%)	4 (10%)	5 20
4	G	38/38 (100%)	34 (90%)	4 (10%)	5 20
4	H	38/38 (100%)	35 (92%)	3 (8%)	10 29
5	Q	70/70 (100%)	67 (96%)	3 (4%)	25 46
5	R	70/70 (100%)	67 (96%)	3 (4%)	25 46
5	S	70/70 (100%)	68 (97%)	2 (3%)	37 57

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	T	70/70 (100%)	67 (96%)	3 (4%)	25 46
6	I	118/118 (100%)	109 (92%)	9 (8%)	11 30
6	J	118/118 (100%)	109 (92%)	9 (8%)	11 30
6	K	118/118 (100%)	109 (92%)	9 (8%)	11 30
6	L	118/118 (100%)	109 (92%)	9 (8%)	11 30
All	All	3412/3412 (100%)	3230 (95%)	182 (5%)	21 41

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

Sometimes 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 oligosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
5	S	15
1	C	2
1	A	2
1	B	2

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Mol	Chain	Number of breaks
5	Q	2
5	R	2
5	T	2
4	G	1
6	J	1
4	F	1
1	D	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	S	2922:LYS	C	2923:ALA	N	7.08
1	S	2918:VAL	C	2919:ARG	N	6.06
1	S	2911:LEU	C	2912:LEU	N	5.65
1	S	2921:THR	C	2922:LYS	N	5.29
1	S	2912:LEU	C	2913:SER	N	4.96
1	S	2917:CYS	C	2918:VAL	N	4.49
1	S	2916:CYS	C	2917:CYS	N	4.21
1	S	2913:SER	C	2914:LEU	N	3.50
1	G	2402:ILE	C	2403:SER	N	3.20
1	S	2919:ARG	C	2920:THR	N	2.72
1	C	2131:ALA	C	2132:LYS	N	2.71
1	S	2909:PRO	C	2910:PHE	N	2.67
1	A	36:VAL	C	37:THR	N	2.36
1	B	1131:ALA	C	1132:LYS	N	2.30
1	Q	861:GLU	C	862:LEU	N	2.29
1	R	1861:GLU	C	1862:LEU	N	2.29
1	S	2861:GLU	C	2862:LEU	N	2.29
1	T	3861:GLU	C	3862:LEU	N	2.29
1	B	1168:SER	C	1169:ALA	N	2.27
1	J	1183:LYS	C	1184:PHE	N	2.25
1	S	2915:LEU	C	2916:CYS	N	2.17
1	F	1402:ILE	C	1403:SER	N	2.13
1	S	2910:PHE	C	2911:LEU	N	2.02
1	A	168:SER	C	169:ALA	N	1.91
1	Q	862:LEU	C	863:TYR	N	1.85
1	R	1862:LEU	C	1863:TYR	N	1.85
1	S	2862:LEU	C	2863:TYR	N	1.85
1	T	3862:LEU	C	3863:TYR	N	1.85
1	D	3131:ALA	C	3132:LYS	N	1.82
1	C	2168:SER	C	2169:ALA	N	1.11
1	S	2920:THR	C	2921:THR	N	1.11

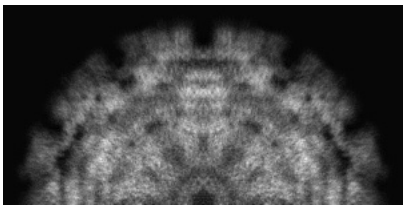
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-5577. These allow visual inspection of the internal detail of the map and identification of artifacts.

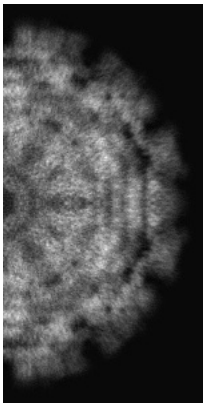
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

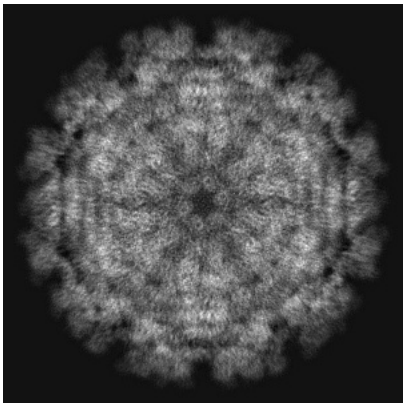
6.1.1 Primary map



X



Y

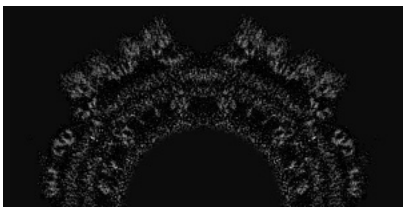


Z

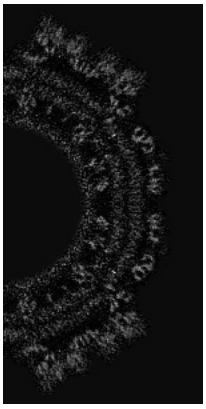
The images above show the map projected in three orthogonal directions.

6.2 Central slices

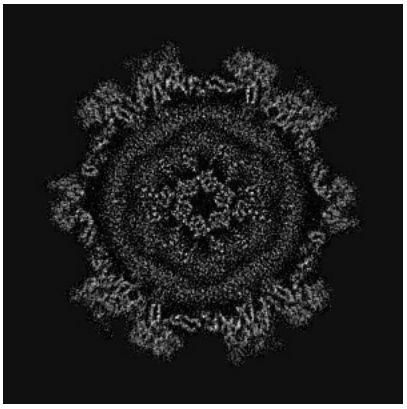
6.2.1 Primary map



X Index: 324



Y Index: 324

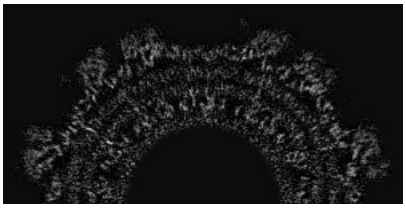


Z Index: 162

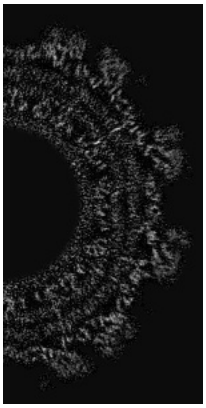
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

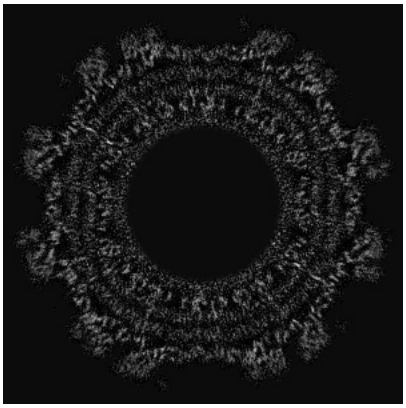
6.3.1 Primary map



X Index: 349



Y Index: 299

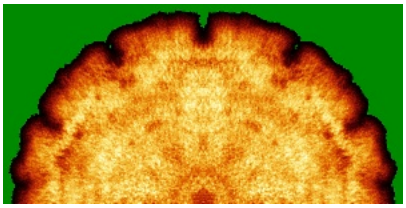


Z Index: 25

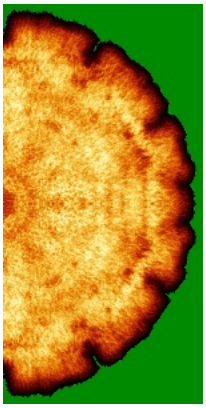
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

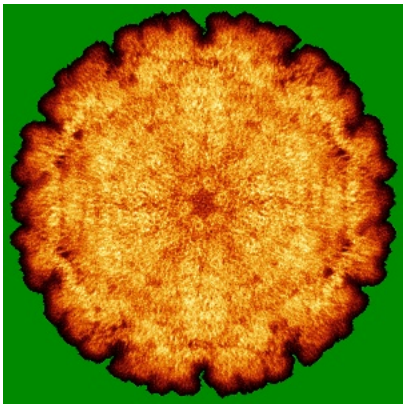
6.4.1 Primary map



X



Y

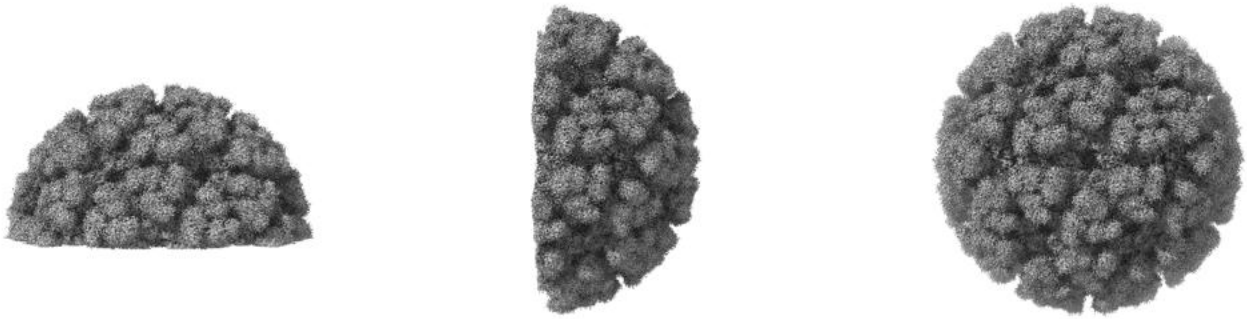


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 1.1. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

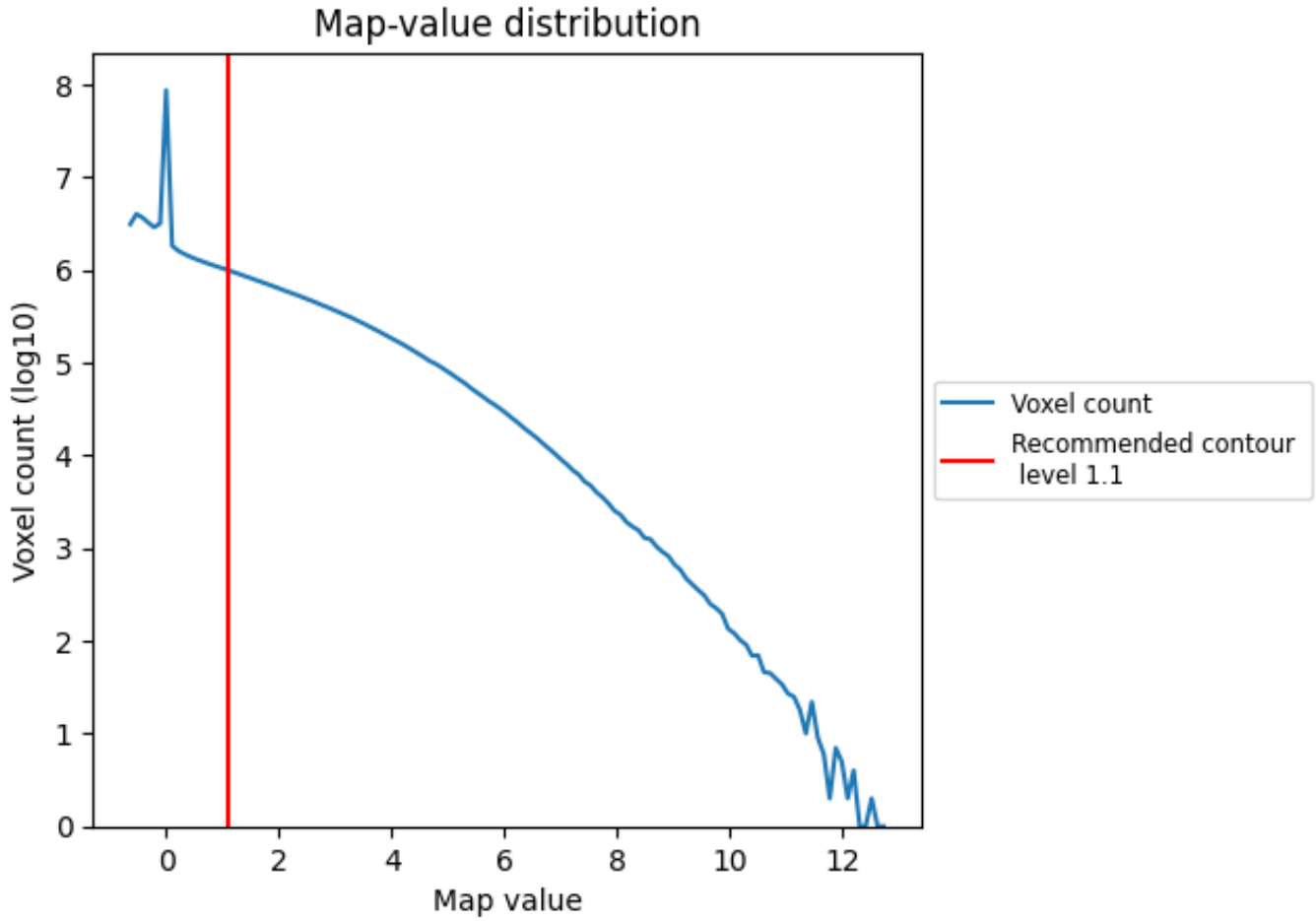
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

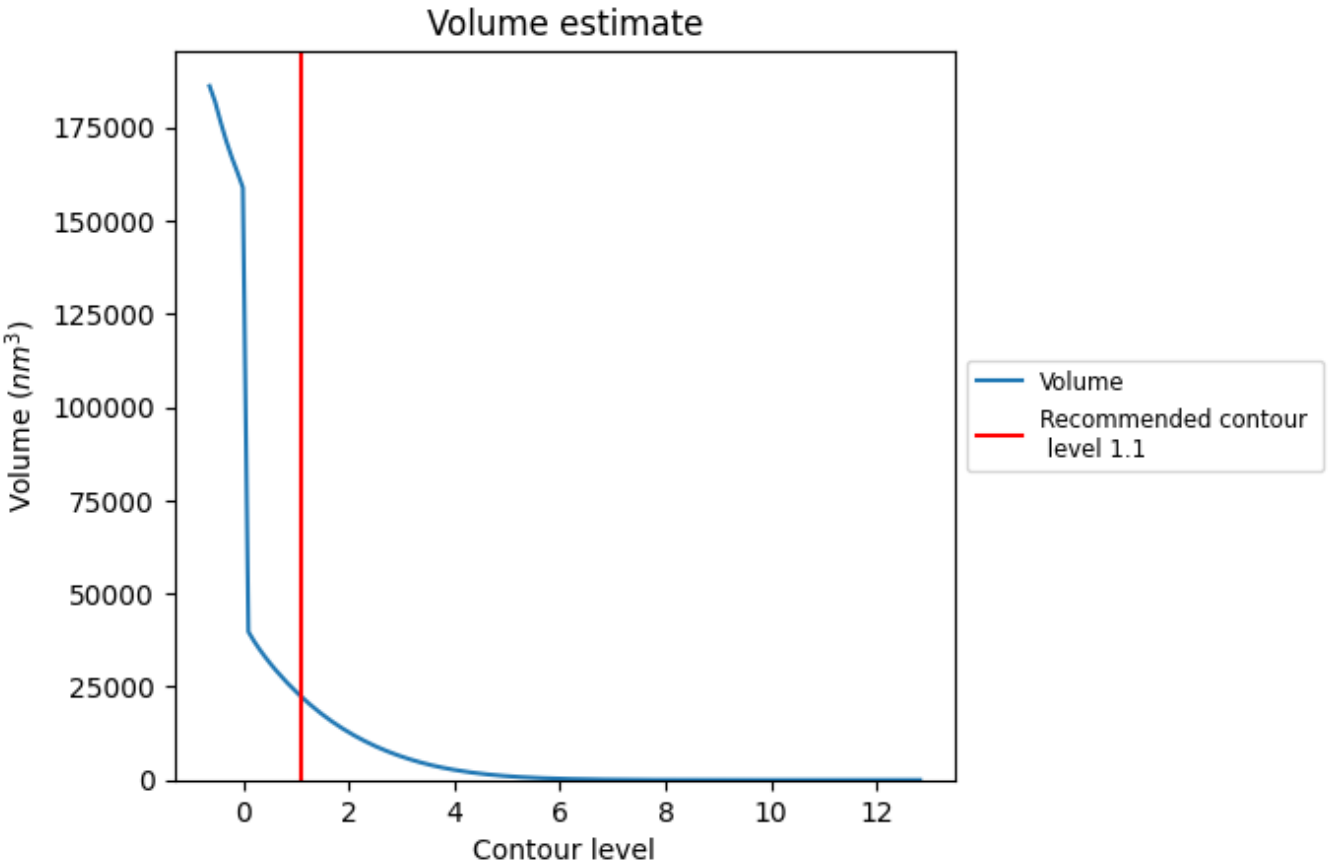
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

7.2 Volume estimate



The volume at the recommended contour level is 22308 nm^3; this corresponds to an approximate mass of 20151 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

8 Fourier-Shell correlation

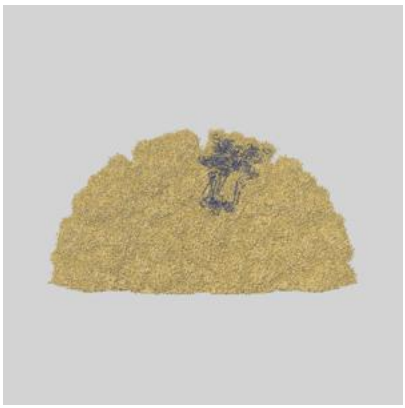
This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit

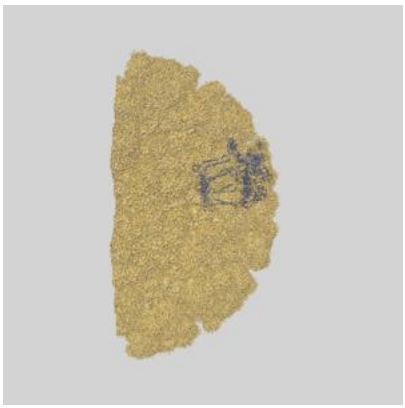
This section contains information regarding the fit between EMDB map EMD-5577 and PDB model 3J2W. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlays

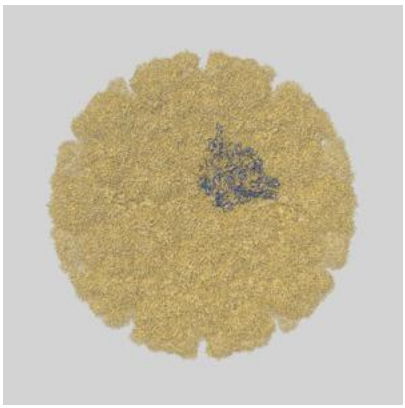
9.1.1 Map-model overlay



X

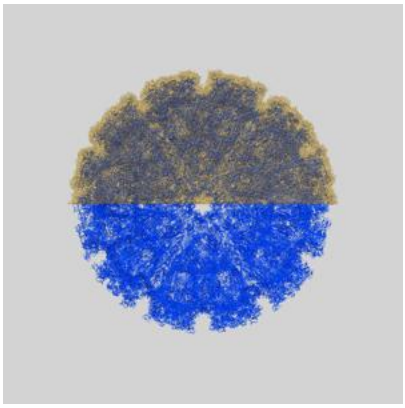


Y

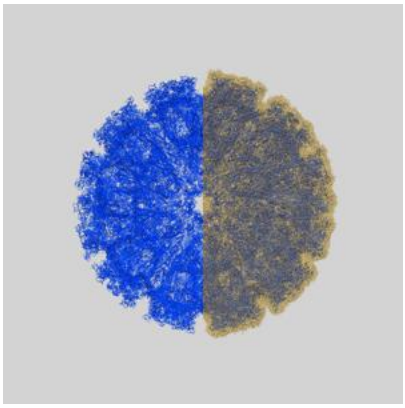


Z

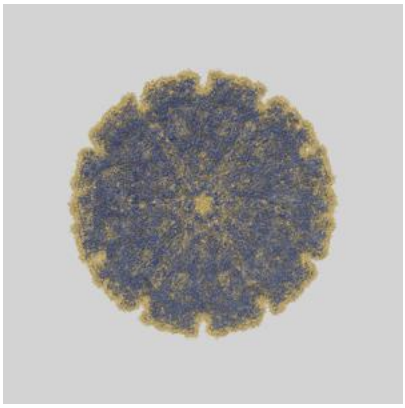
9.1.2 Map-model assembly overlay



X



Y



Z

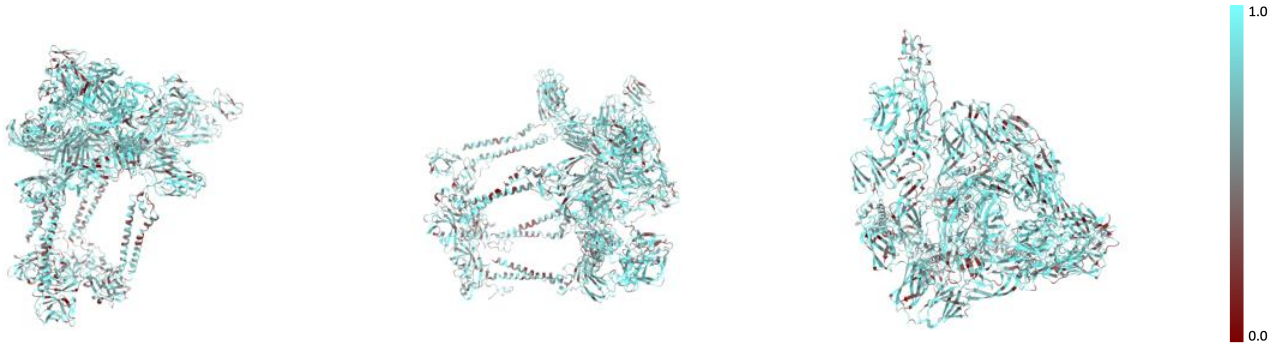
The images above show the 3D surface view of the map at the recommended contour level 1.1 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model

X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

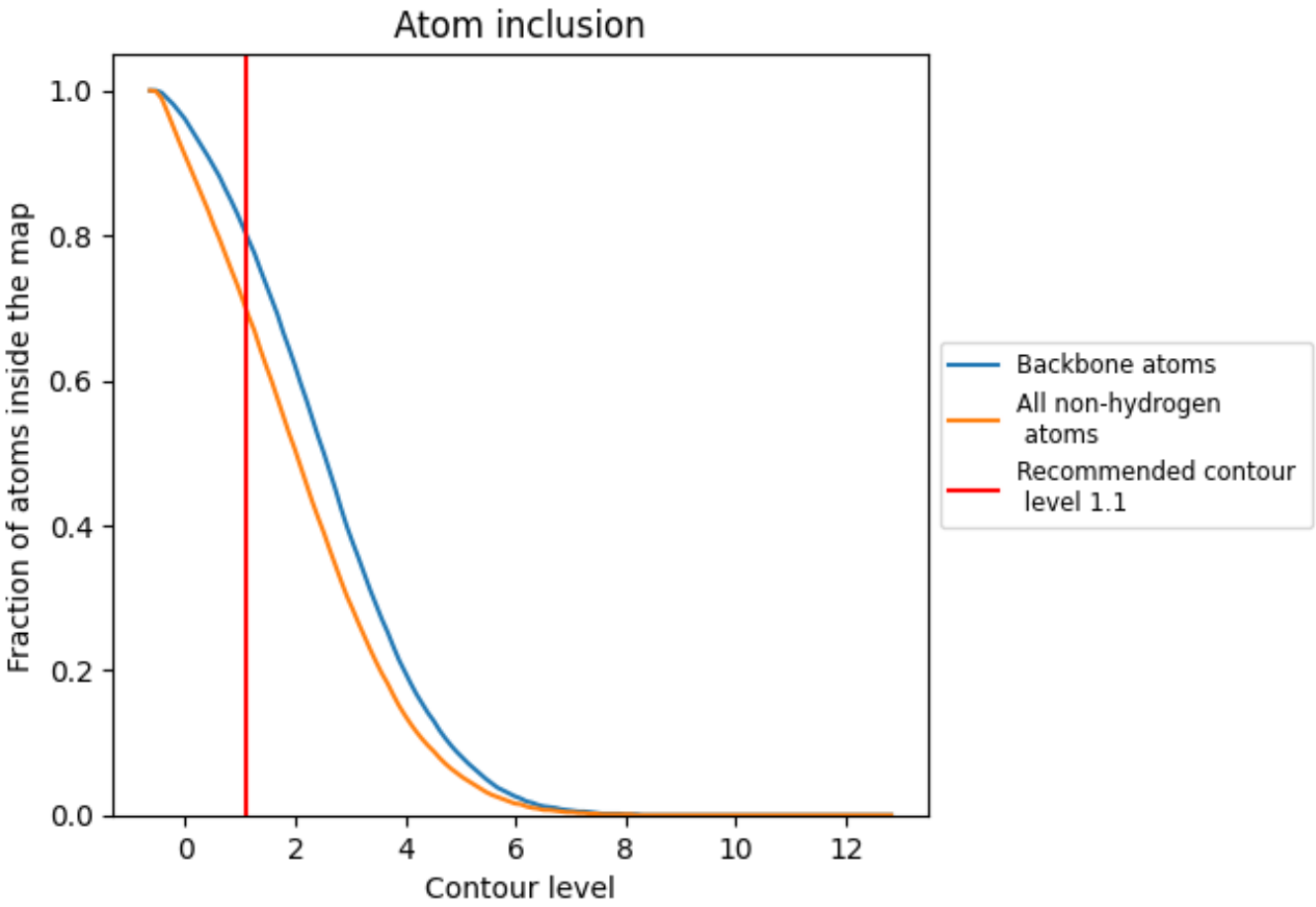
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (1.1).

9.4 Atom inclusion (i)



At the recommended contour level, 80% of all backbone atoms, 70% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (1.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6990	0.0420
A	0.6960	0.0340
B	0.7360	0.0590
C	0.7260	0.0520
D	0.7170	0.0590
E	0.6610	0.0440
F	0.6010	0.0200
G	0.5800	-0.0100
H	0.6370	0.0720
I	0.6620	0.0390
J	0.6300	0.0120
K	0.6230	0.0130
L	0.6510	0.0260
M	0.7310	0.0330
N	0.7260	0.0330
O	0.7260	0.0610
P	0.7360	0.0610
Q	0.6130	0.0160
R	0.5970	0.0250
S	0.5970	0.0230
T	0.6580	0.0300