Full wwPDB EM Validation Report ⓘ

Jun 25, 2025 – 03:59 pm BST

PDB ID	:	6FKH / pdb_00006fkh
EMDB ID	:	EMD-4271
Title	:	Chloroplast F1Fo conformation 2
Authors	:	Hahn, A.; Vonck, J.; Mills, D.J.; Meier, T.; Kuehlbrandt, W.
Deposited on	:	2018-01-24
Resolution	:	4.20 Å(reported)

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

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

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

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

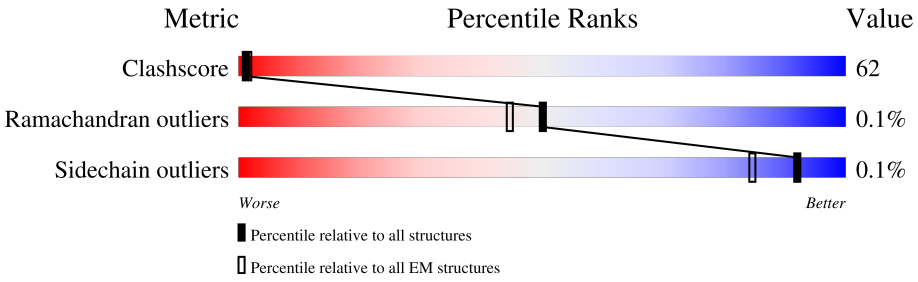
EMDB validation analysis	:	0.0.1.dev118
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4-5-2 with Phenix2.0rc1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.44

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 4.20 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	247	60% 38% 49% · 10%
2	A	507	5% 57% 41% ··
2	C	507	· 59% 38% ··
2	E	507	6% 57% 41% ··
3	B	498	· 61% 33% · ·
3	D	498	· 62% 32% · ·
3	F	498	· 62% 33% · ·
4	e	134	23% 54% 43% ·

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Mol	Chain	Length	Quality of chain
5	g	364	9% 46% 40% 12%
6	G	81	52% 49% 46%
6	H	81	62% 51% 46%
6	I	81	54% 51% 47%
6	J	81	63% 49% 48%
6	K	81	52% 52% 46%
6	L	81	41% 52% 46%
6	M	81	47% 48% 49%
6	N	81	56% 49% 48%
6	O	81	57% 48% 49%
6	P	81	63% 52% 46%
6	Q	81	63% 57% 41%
6	R	81	70% 53% 44%
6	S	81	70% 49% 48%
6	T	81	58% 53% 44%
7	p	222	42% 21% 42% 36%
8	b	184	47% 29% 58% 12%
9	d	257	9% 29% 39% 30%

2 Entry composition (i)

There are 12 unique types of molecules in this entry. The entry contains 39231 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 ATP synthase subunit a, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	a	223	Total	C	N	O	S	0	0
			1741	1172	268	299	2		

- Molecule 2 is a protein called ATP synthase subunit alpha, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	C	501	Total	C	N	O	S	0	0
			3851	2423	667	748	13		
2	E	497	Total	C	N	O	S	0	0
			3818	2403	659	743	13		
2	A	502	Total	C	N	O	S	0	0
			3858	2427	668	750	13		

- Molecule 3 is a protein called ATP synthase subunit beta, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	D	479	Total	C	N	O	S	0	0
			3627	2288	623	700	16		
3	F	478	Total	C	N	O	S	0	0
			3619	2282	622	699	16		
3	B	480	Total	C	N	O	S	0	0
			3636	2294	625	701	16		

- Molecule 4 is a protein called ATP synthase epsilon chain, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	e	131	Total	C	N	O	S	0	0
			1010	622	190	195	3		

- Molecule 5 is a protein called ATP synthase gamma chain, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	g	321	Total	C	N	O	S	0	0
			2497	1574	429	482	12		

- Molecule 6 is a protein called ATP synthase subunit c, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	S	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	N	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	O	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	P	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	Q	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	R	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	M	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	T	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	G	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	H	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	L	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	K	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	J	79	Total	C	N	O	S	0	0
			544	355	90	98	1		
6	I	79	Total	C	N	O	S	0	0
			544	355	90	98	1		

- Molecule 7 is a protein called ATP synthase subunit b', chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	p	143	Total	C	N	O	S	0	0
			1124	713	182	224	5		

- Molecule 8 is a protein called ATP synthase subunit b, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	b	161	Total	C	N	O	S	0	0
			1299	812	236	246	5		

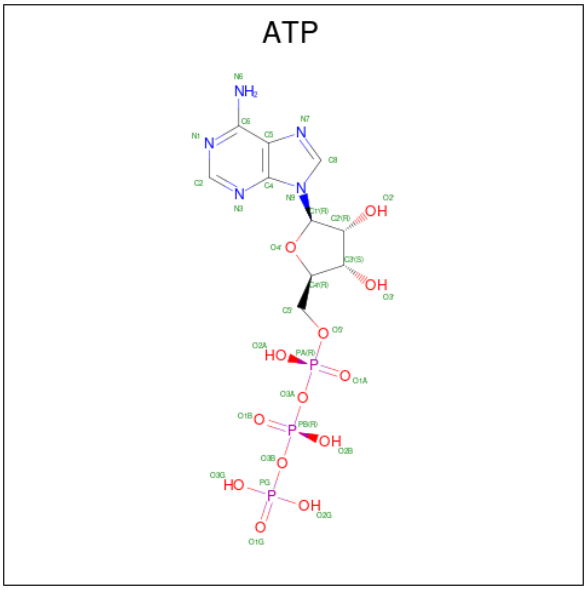
- Molecule 9 is a protein called ATP synthase delta chain, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	d	179	Total	C	N	O	S	0	0
			1383	876	229	277	1		

- Molecule 10 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

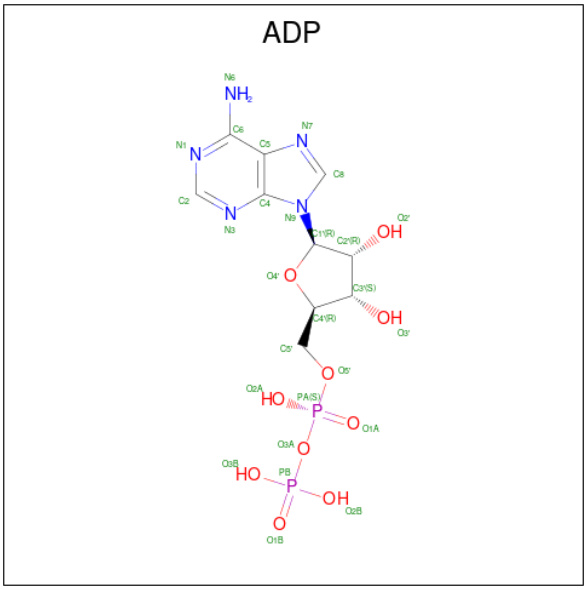
Mol	Chain	Residues	Atoms		AltConf
10	C	1	Total	Mg	0
			1	1	
10	E	1	Total	Mg	0
			1	1	
10	F	1	Total	Mg	0
			1	1	
10	A	1	Total	Mg	0
			1	1	
10	B	1	Total	Mg	0
			1	1	

- Molecule 11 is ADENOSINE-5'-TRIPHOSPHATE (CCD ID: ATP) (formula: $C_{10}H_{16}N_5O_{13}P_3$).



Mol	Chain	Residues	Atoms					AltConf
11	C	1	Total	C	N	O	P	0
			31	10	5	13	3	
11	E	1	Total	C	N	O	P	0
			31	10	5	13	3	
11	A	1	Total	C	N	O	P	0
			31	10	5	13	3	

- Molecule 12 is ADENOSINE-5'-DIPHOSPHATE (CCD ID: ADP) (formula: $C_{10}H_{15}N_5O_{10}P_2$).



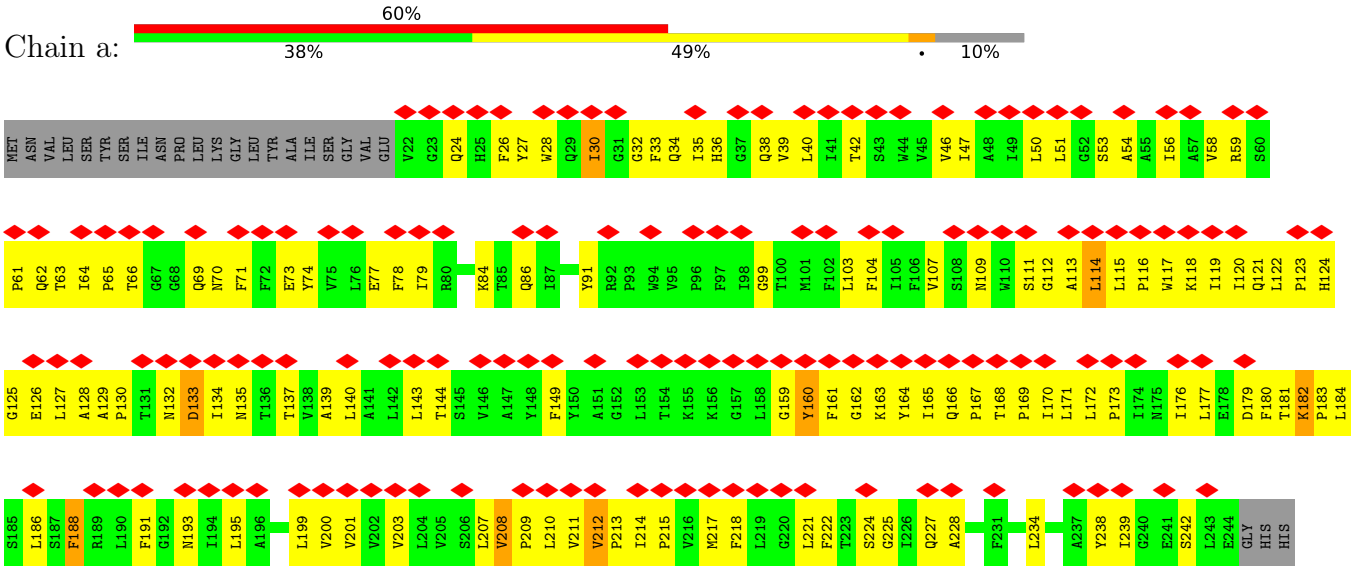
Mol	Chain	Residues	Atoms					AltConf
12	F	1	Total	C	N	O	P	0
			27	10	5	10	2	
12	B	1	Total	C	N	O	P	0
			27	10	5	10	2	

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.

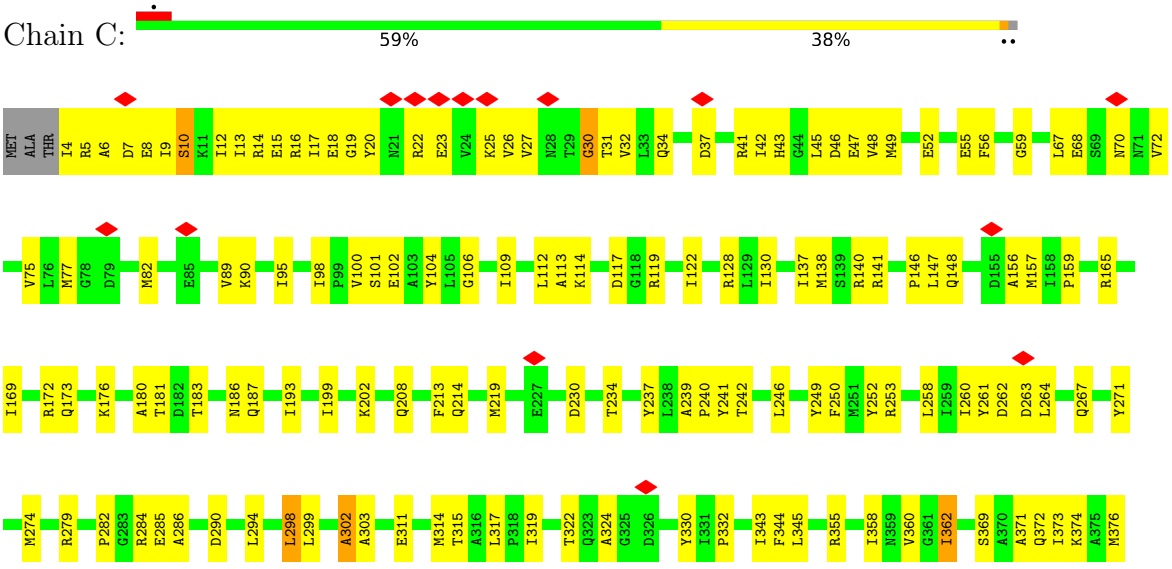
• Molecule 1: ATP synthase subunit a, chloroplastic

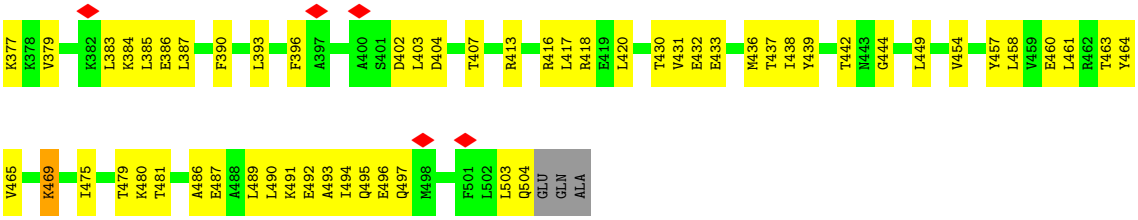
Chain a:



• Molecule 2: ATP synthase subunit alpha, chloroplastic

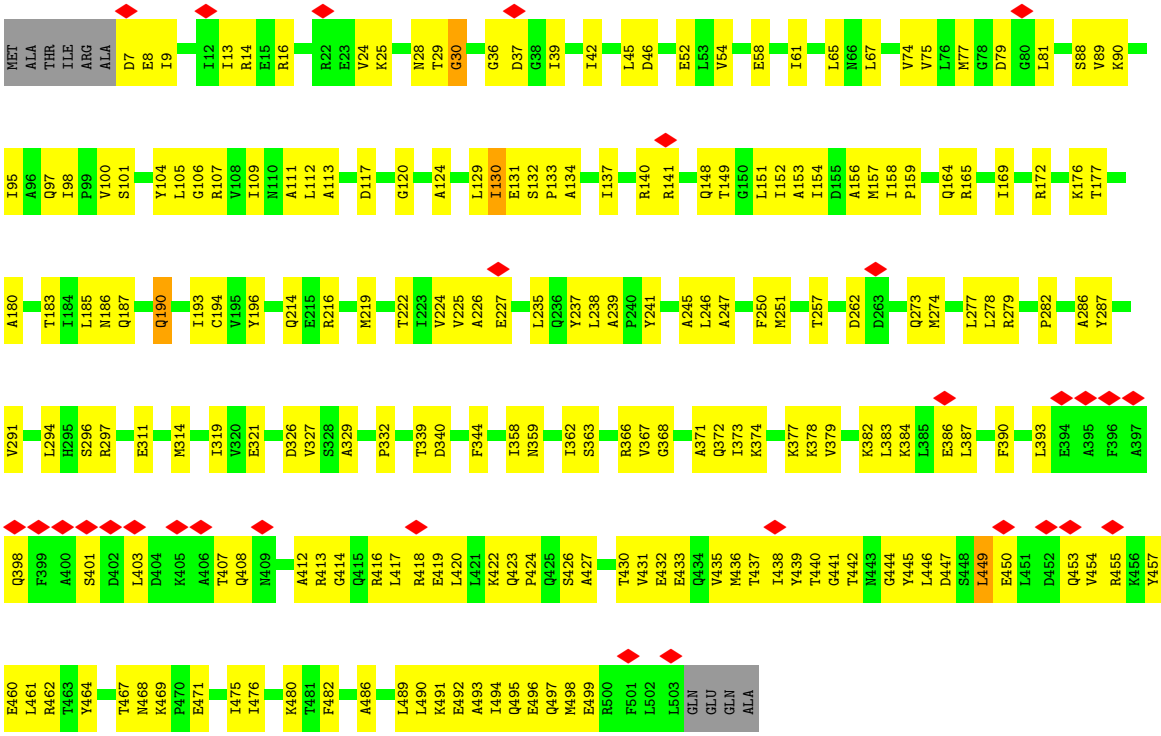
Chain C:





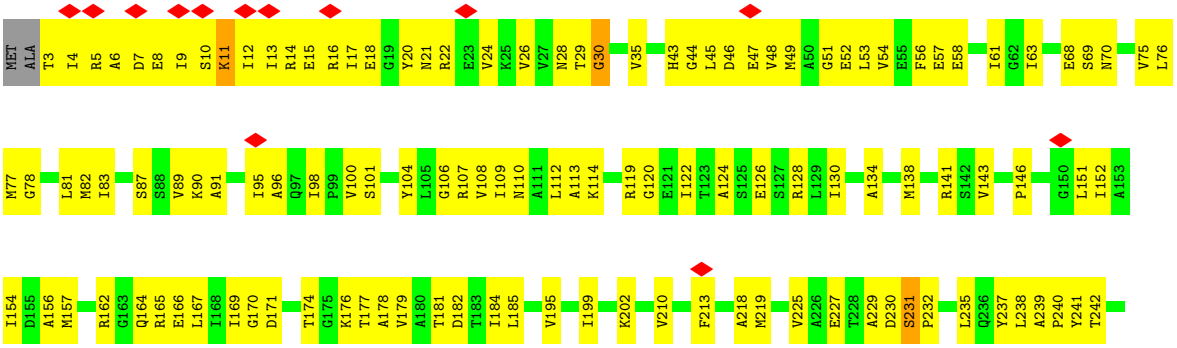
• Molecule 2: ATP synthase subunit alpha, chloroplastic

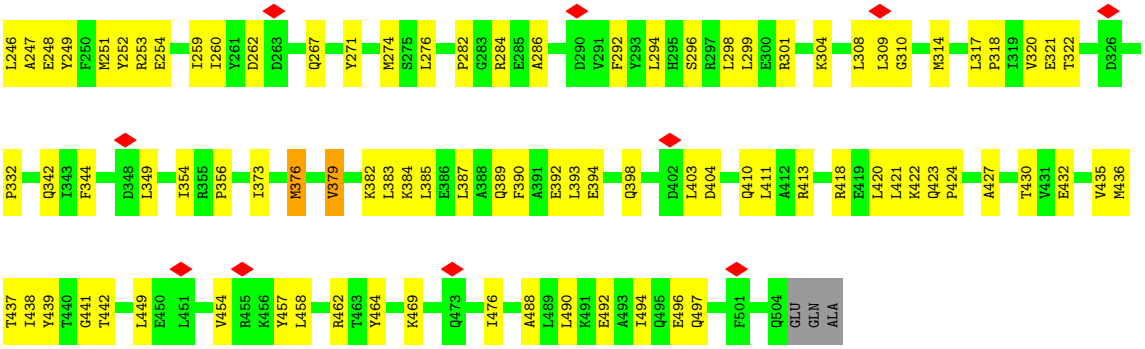
Chain E:



• Molecule 2: ATP synthase subunit alpha, chloroplastic

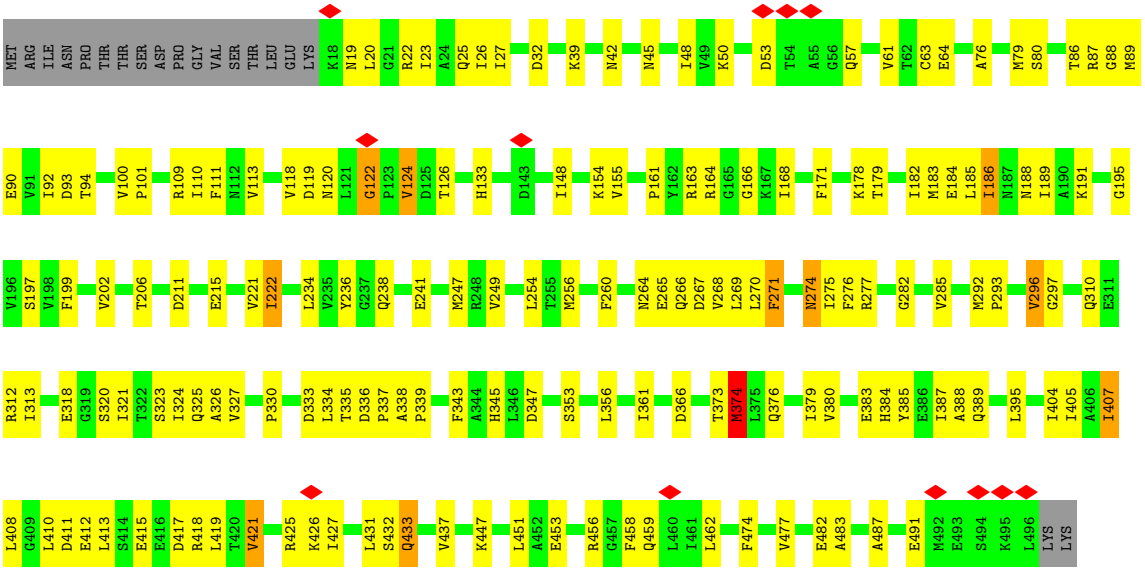
Chain A:





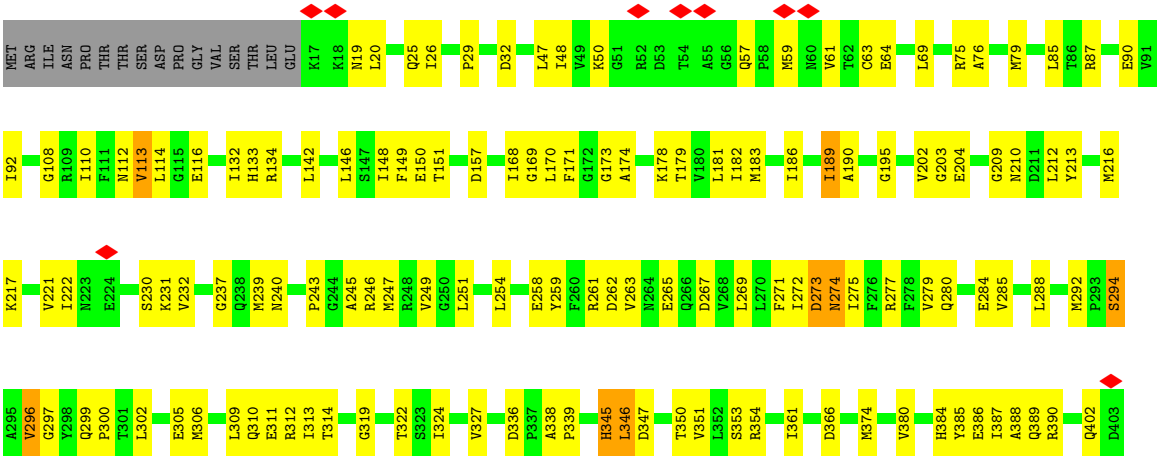
• Molecule 3: ATP synthase subunit beta, chloroplastic

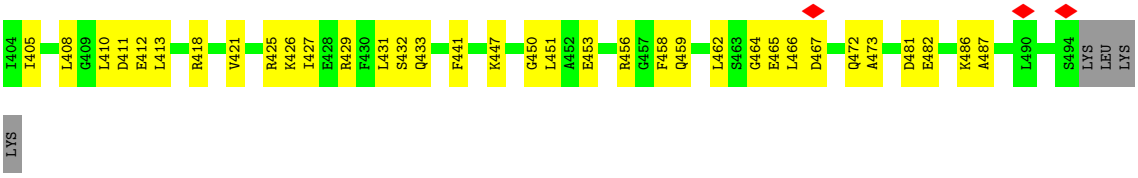
Chain D:



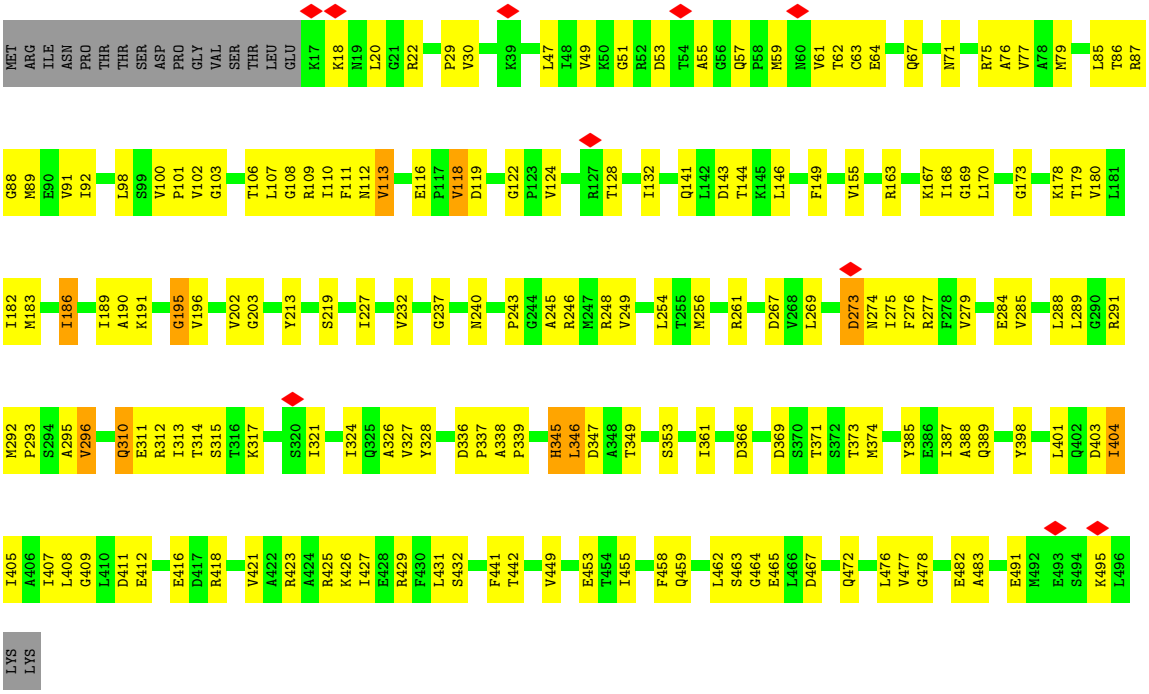
• Molecule 3: ATP synthase subunit beta, chloroplastic

Chain F:

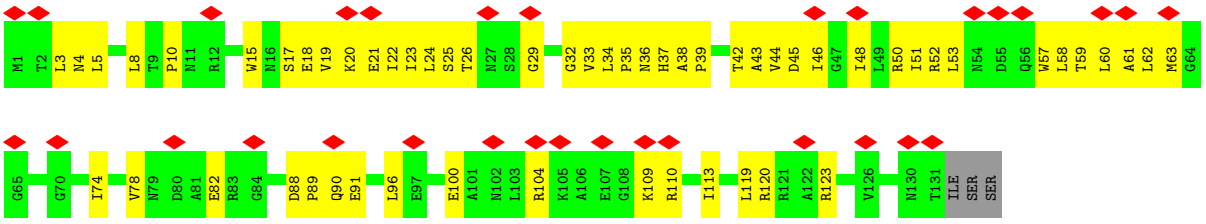




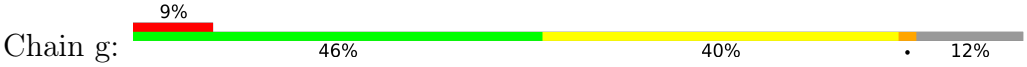
• Molecule 3: ATP synthase subunit beta, chloroplastic

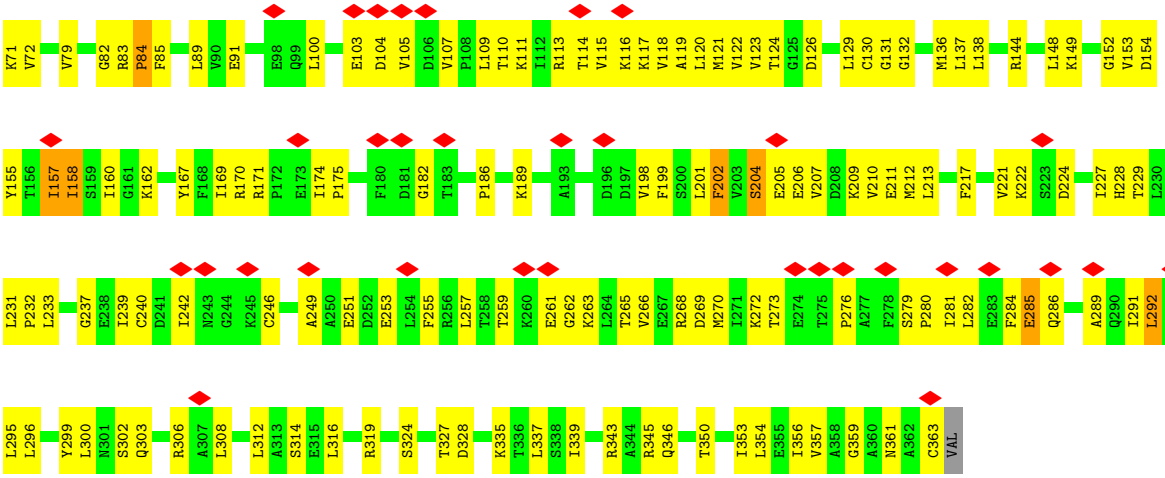


• Molecule 4: ATP synthase epsilon chain, chloroplastic

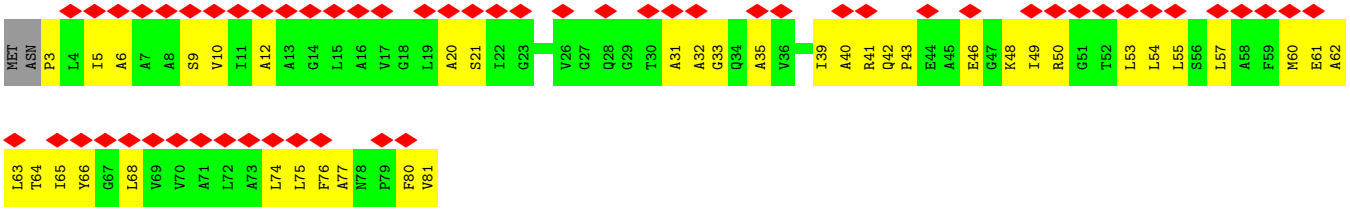


• Molecule 5: ATP synthase gamma chain, chloroplastic

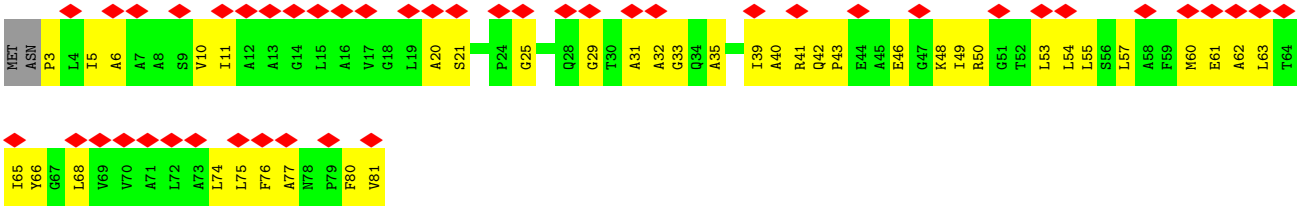




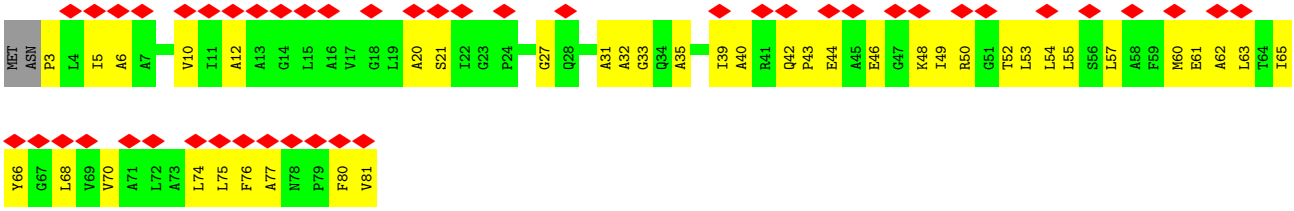
• Molecule 6: ATP synthase subunit c, chloroplastic



• Molecule 6: ATP synthase subunit c, chloroplastic

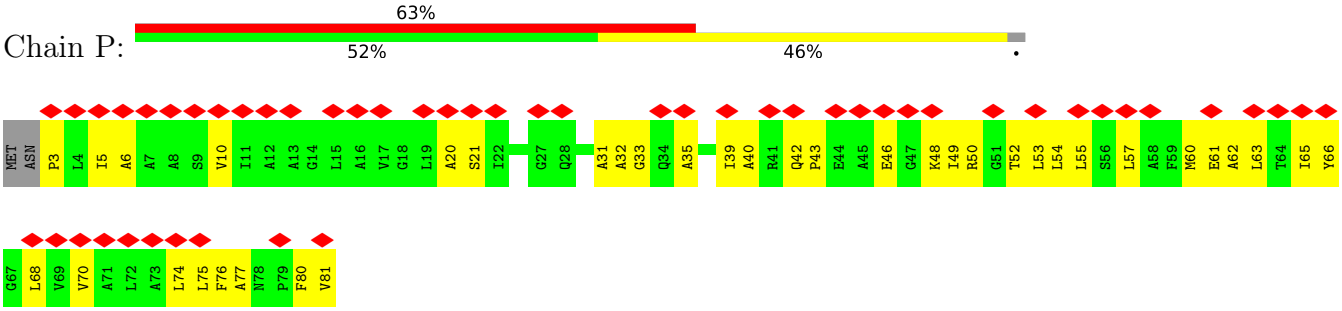


• Molecule 6: ATP synthase subunit c, chloroplastic



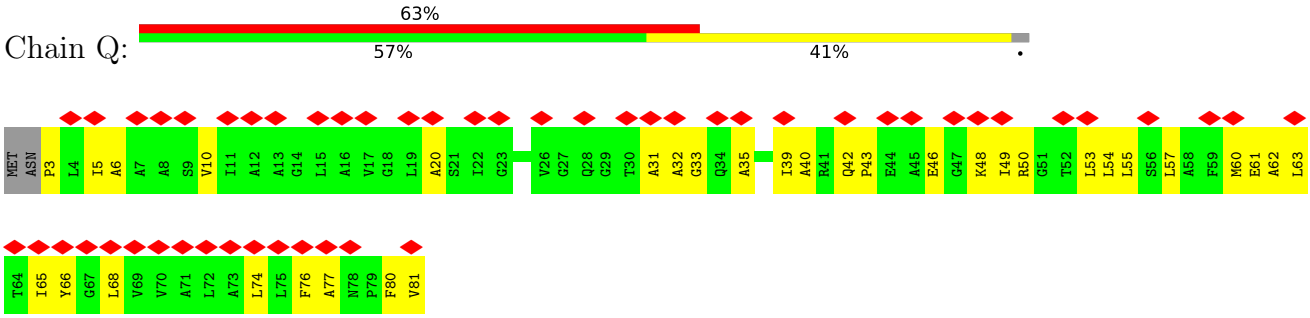
• Molecule 6: ATP synthase subunit c, chloroplastic

Chain P:



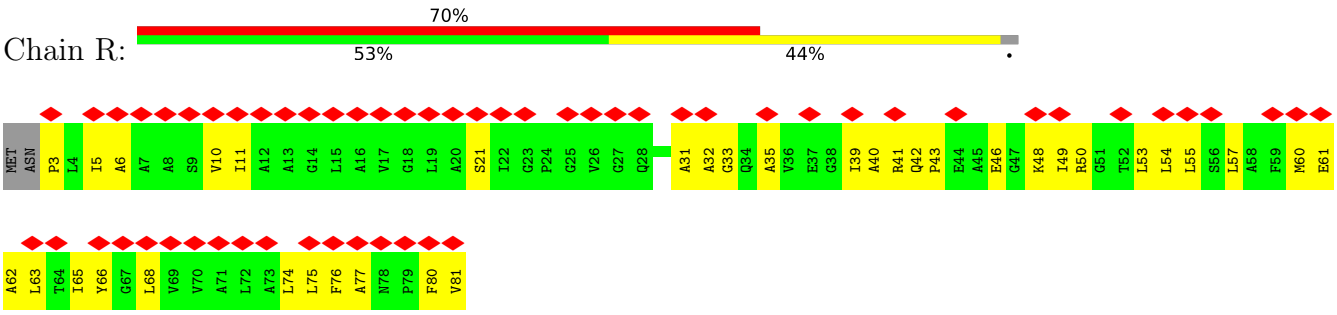
• Molecule 6: ATP synthase subunit c, chloroplastic

Chain Q:



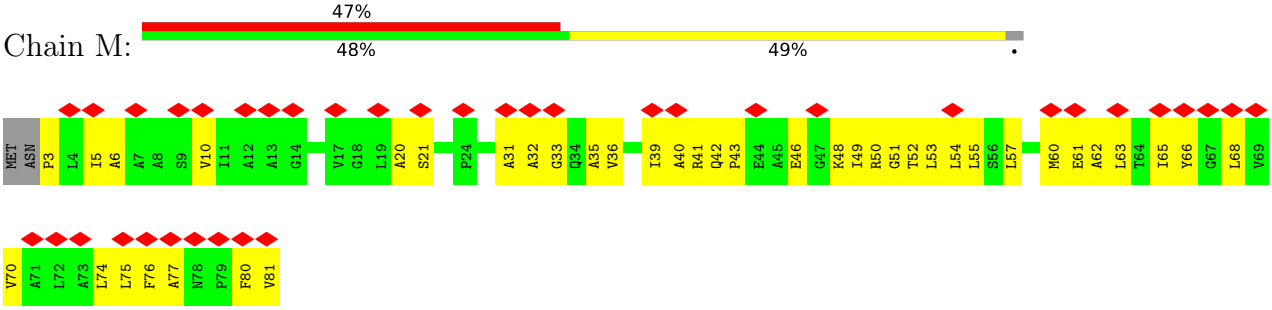
• Molecule 6: ATP synthase subunit c, chloroplastic

Chain R:



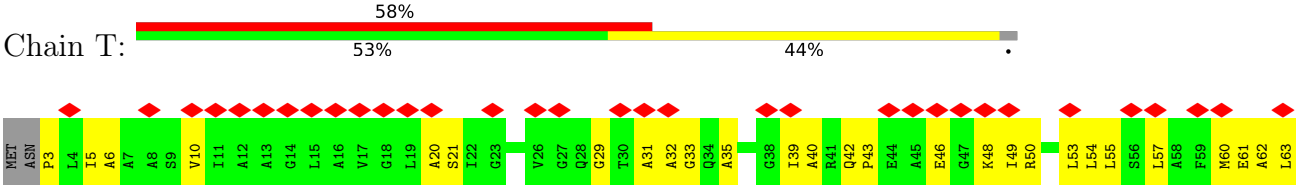
• Molecule 6: ATP synthase subunit c, chloroplastic

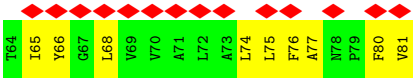
Chain M:



• Molecule 6: ATP synthase subunit c, chloroplastic

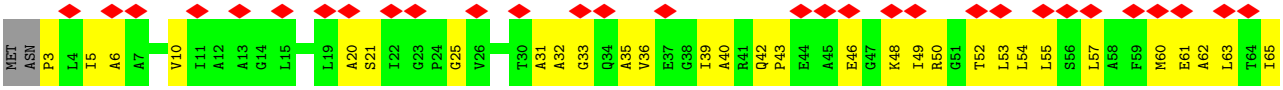
Chain T:

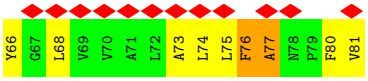




• Molecule 6: ATP synthase subunit c, chloroplastic

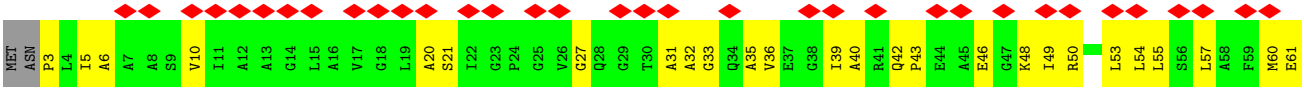
Chain G:

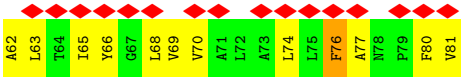




• Molecule 6: ATP synthase subunit c, chloroplastic

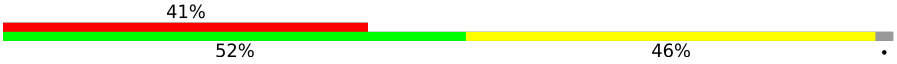
Chain H:

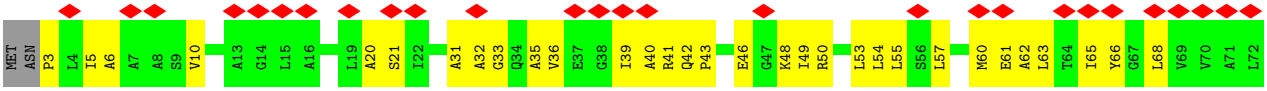


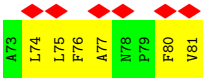


• Molecule 6: ATP synthase subunit c, chloroplastic

Chain L:

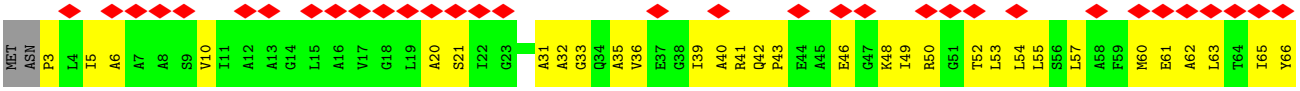


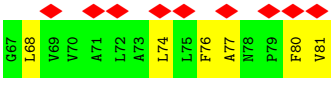




• Molecule 6: ATP synthase subunit c, chloroplastic

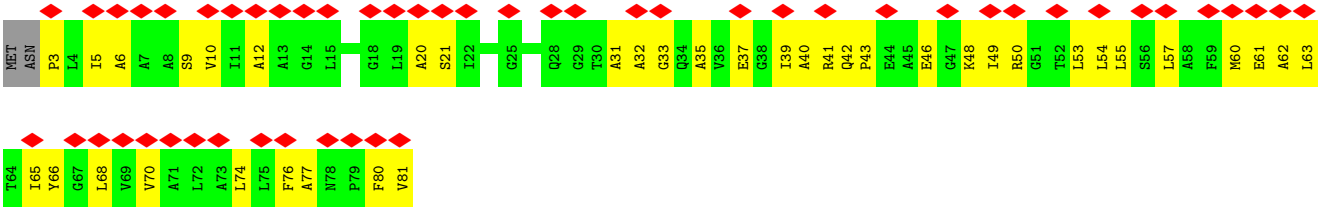
Chain K:





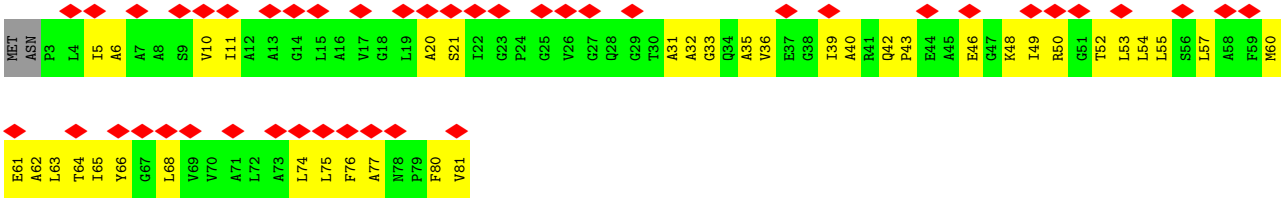
• Molecule 6: ATP synthase subunit c, chloroplastic

Chain J:



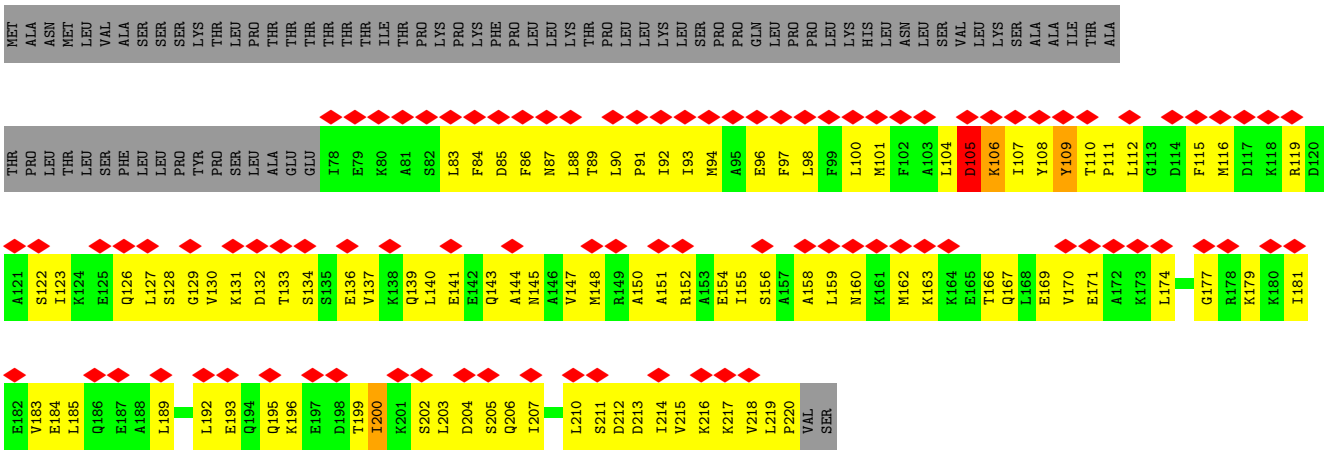
• Molecule 6: ATP synthase subunit c, chloroplastic

Chain I:



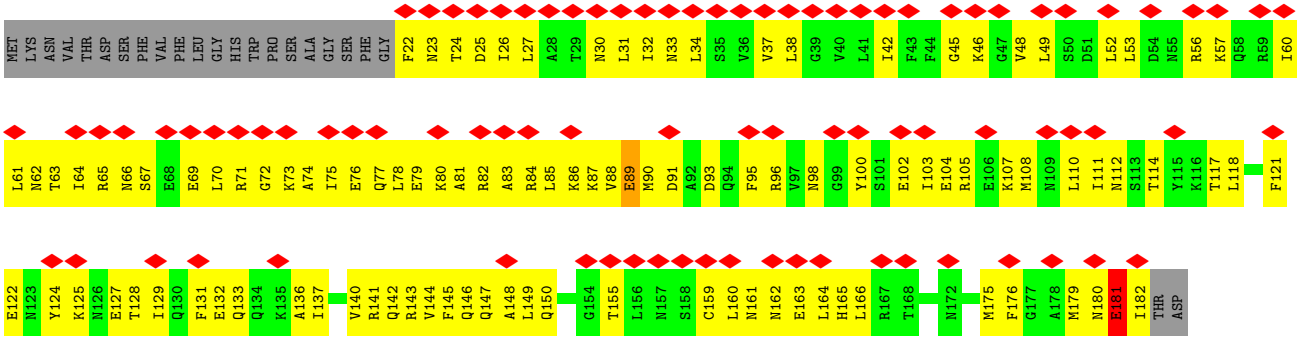
• Molecule 7: ATP synthase subunit b', chloroplastic

Chain p:



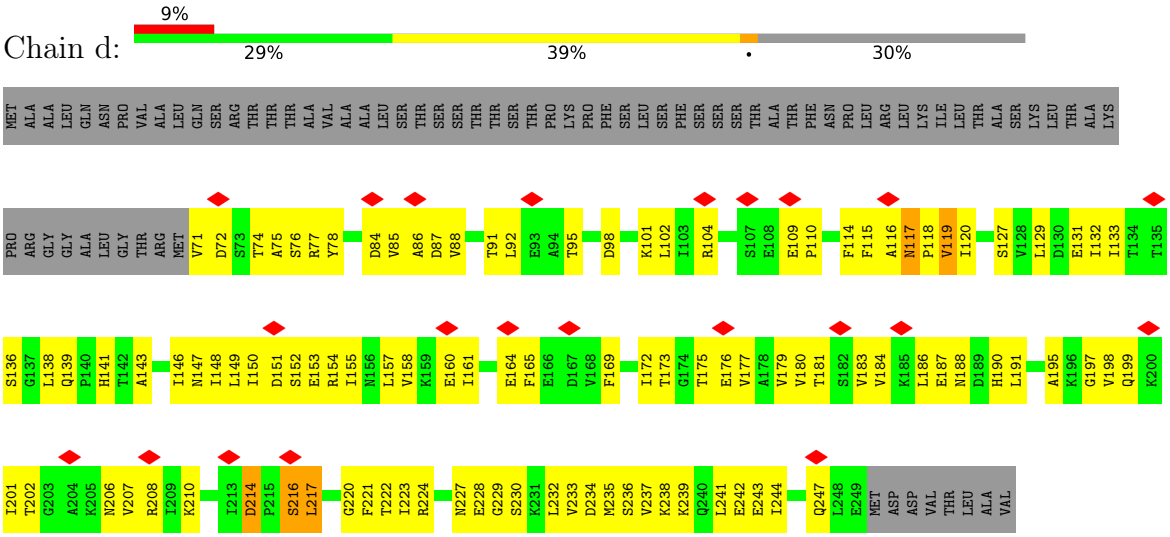
• Molecule 8: ATP synthase subunit b, chloroplastic

Chain b:



• Molecule 9: ATP synthase delta chain, chloroplastic

Chain d:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	15395	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	25	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	132953	Depositor
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	0.270	Depositor
Minimum map value	-0.181	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.014	Depositor
Recommended contour level	0.05	Depositor
Map size (Å)	368.55, 368.55, 368.55	wwPDB
Map dimensions	350, 350, 350	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.053, 1.053, 1.053	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: ADP, MG, ATP

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	0.53	0/1792	1.14	19/2454 (0.8%)
2	A	0.96	2/3907 (0.1%)	0.96	13/5286 (0.2%)
2	C	0.98	1/3900 (0.0%)	1.05	9/5276 (0.2%)
2	E	0.94	1/3867 (0.0%)	1.11	8/5232 (0.2%)
3	B	0.82	0/3693	0.86	8/5005 (0.2%)
3	D	1.00	2/3684 (0.1%)	0.94	18/4994 (0.4%)
3	F	0.79	1/3676 (0.0%)	0.92	11/4983 (0.2%)
4	e	0.47	0/1019	0.82	0/1381
5	g	0.76	1/2526 (0.0%)	0.94	8/3412 (0.2%)
6	G	0.58	0/551	1.00	2/750 (0.3%)
6	H	0.58	0/551	0.99	2/750 (0.3%)
6	I	0.58	0/551	1.00	2/750 (0.3%)
6	J	0.58	0/551	1.00	2/750 (0.3%)
6	K	0.58	0/551	1.00	2/750 (0.3%)
6	L	0.58	0/551	0.99	2/750 (0.3%)
6	M	0.58	0/551	0.99	2/750 (0.3%)
6	N	0.58	0/551	1.00	2/750 (0.3%)
6	O	0.58	0/551	1.00	2/750 (0.3%)
6	P	0.58	0/551	1.00	2/750 (0.3%)
6	Q	0.58	0/551	1.00	2/750 (0.3%)
6	R	0.58	0/551	1.00	2/750 (0.3%)
6	S	0.58	0/551	0.99	2/750 (0.3%)
6	T	0.58	0/551	0.99	2/750 (0.3%)
7	p	0.62	1/1134 (0.1%)	0.98	6/1519 (0.4%)
8	b	0.44	0/1309	0.89	2/1754 (0.1%)
9	d	0.63	0/1399	1.00	7/1898 (0.4%)
All	All	0.80	9/39620 (0.0%)	0.98	137/53694 (0.3%)

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

sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	A	0	2
2	C	0	2
2	E	0	2
3	B	0	1
6	G	0	1
6	H	0	1
6	I	0	1
6	J	0	1
6	K	0	1
6	L	0	1
6	M	0	1
6	N	0	1
6	O	0	1
6	P	0	1
6	Q	0	1
6	R	0	1
6	S	0	1
6	T	0	1
7	p	0	1
8	b	0	1
All	All	0	23

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	30	GLY	C-N	28.88	1.73	1.33
3	D	276	PHE	C-N	-27.84	0.97	1.33
2	E	30	GLY	C-N	22.04	1.64	1.33
2	A	30	GLY	C-N	15.99	1.58	1.33
5	g	84	PRO	N-CD	12.77	1.65	1.47
7	p	105	ASP	C-N	-11.82	1.17	1.33
3	F	271	PHE	C-N	7.60	1.43	1.33
3	D	271	PHE	C-N	-7.24	1.23	1.33
2	A	296	SER	C-O	-5.11	1.18	1.24

All (137) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	30	GLY	O-C-N	-31.22	98.52	123.49
2	E	30	GLY	O-C-N	29.66	154.73	123.29
2	E	30	GLY	CA-C-N	-24.44	85.10	122.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	E	30	GLY	C-N-CA	-24.44	85.10	122.74
1	a	212	VAL	CA-C-N	13.34	133.74	119.87
1	a	212	VAL	C-N-CA	13.34	133.74	119.87
2	C	30	GLY	CA-C-N	12.19	139.55	122.72
2	C	30	GLY	C-N-CA	12.19	139.55	122.72
8	b	181	GLU	O-C-N	-11.96	109.75	122.07
1	a	208	VAL	CA-C-N	10.42	130.21	120.21
1	a	208	VAL	C-N-CA	10.42	130.21	120.21
3	F	189	ILE	N-CA-C	10.01	120.83	110.72
1	a	30	ILE	N-CA-C	9.30	121.14	108.11
2	A	30	GLY	O-C-N	-9.26	110.66	122.70
9	d	216	SER	N-CA-C	9.03	121.12	111.28
3	F	294	SER	N-CA-C	8.56	120.38	111.14
7	p	109	TYR	N-CA-C	8.52	120.19	111.07
3	F	190	ALA	N-CA-C	8.43	120.09	111.07
9	d	117	ASN	CA-C-N	8.19	128.14	119.05
9	d	117	ASN	C-N-CA	8.19	128.14	119.05
1	a	59	ARG	N-CA-C	7.95	119.94	111.28
3	D	191	LYS	N-CA-C	7.88	119.66	111.14
2	C	469	LYS	CA-C-N	7.82	127.88	119.28
2	C	469	LYS	C-N-CA	7.82	127.88	119.28
2	E	467	THR	N-CA-C	7.79	119.56	111.14
2	C	59	GLY	N-CA-C	7.73	125.64	115.36
3	D	271	PHE	O-C-N	-7.56	114.35	123.27
3	B	345	HIS	N-CA-C	7.54	119.50	111.28
2	A	21	ASN	N-CA-C	7.39	119.42	111.36
1	a	188	PHE	N-CA-C	7.28	119.29	111.36
1	a	212	VAL	CB-CA-C	-7.27	106.65	114.35
5	g	162	LYS	N-CA-C	7.26	119.27	111.36
9	d	116	ALA	N-CA-C	7.24	119.25	111.36
3	D	285	VAL	N-CA-CB	7.20	120.33	110.54
1	a	211	VAL	N-CA-C	7.17	117.93	110.62
3	F	273	ASP	CA-CB-CG	7.11	119.71	112.60
3	F	345	HIS	N-CA-C	7.06	119.06	111.36
3	D	122	GLY	CA-C-N	7.04	127.01	119.76
3	D	122	GLY	C-N-CA	7.04	127.01	119.76
5	g	285	GLU	N-CA-C	6.95	118.85	111.28
2	E	190	GLN	N-CA-C	6.72	118.97	110.24
2	E	371	ALA	N-CA-C	6.61	118.57	111.36
2	A	379	VAL	N-CA-C	6.57	116.71	110.53
2	A	231	SER	CA-C-N	6.53	126.51	119.78
2	A	231	SER	C-N-CA	6.53	126.51	119.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	a	129	ALA	CA-C-N	6.53	125.96	118.85
1	a	129	ALA	C-N-CA	6.53	125.96	118.85
3	F	113	VAL	CB-CA-C	-6.50	103.36	112.14
2	A	113	ALA	N-CA-C	6.47	120.48	112.58
1	a	210	LEU	N-CA-C	6.47	119.15	111.71
9	d	119	VAL	N-CA-C	6.46	117.22	110.62
5	g	158	ILE	N-CA-C	-6.46	98.56	107.99
9	d	214	ASP	CA-C-N	6.43	125.86	118.85
9	d	214	ASP	C-N-CA	6.43	125.86	118.85
7	p	200	ILE	N-CA-C	-6.42	104.07	110.62
6	P	76	PHE	CA-C-N	-6.42	113.36	122.41
6	P	76	PHE	C-N-CA	-6.42	113.36	122.41
6	I	76	PHE	CA-C-N	-6.41	113.37	122.41
6	I	76	PHE	C-N-CA	-6.41	113.37	122.41
6	K	76	PHE	CA-C-N	-6.41	113.37	122.41
6	K	76	PHE	C-N-CA	-6.41	113.37	122.41
6	R	76	PHE	CA-C-N	-6.40	113.39	122.41
6	R	76	PHE	C-N-CA	-6.40	113.39	122.41
6	G	76	PHE	CA-C-N	-6.40	113.39	122.41
6	G	76	PHE	C-N-CA	-6.40	113.39	122.41
6	M	76	PHE	CA-C-N	-6.39	113.41	122.41
6	M	76	PHE	C-N-CA	-6.39	113.41	122.41
6	Q	76	PHE	CA-C-N	-6.38	113.41	122.41
6	Q	76	PHE	C-N-CA	-6.38	113.41	122.41
6	N	76	PHE	CA-C-N	-6.38	113.41	122.41
6	N	76	PHE	C-N-CA	-6.38	113.41	122.41
6	J	76	PHE	CA-C-N	-6.38	113.42	122.41
6	J	76	PHE	C-N-CA	-6.38	113.42	122.41
6	O	76	PHE	CA-C-N	-6.37	113.42	122.41
6	O	76	PHE	C-N-CA	-6.37	113.42	122.41
6	L	76	PHE	CA-C-N	-6.36	113.44	122.41
6	L	76	PHE	C-N-CA	-6.36	113.44	122.41
6	T	76	PHE	CA-C-N	-6.36	113.44	122.41
6	T	76	PHE	C-N-CA	-6.36	113.44	122.41
6	S	76	PHE	CA-C-N	-6.36	113.45	122.41
6	S	76	PHE	C-N-CA	-6.36	113.45	122.41
6	H	76	PHE	CA-C-N	-6.35	113.45	122.41
6	H	76	PHE	C-N-CA	-6.35	113.45	122.41
3	B	113	VAL	CB-CA-C	-6.27	103.68	112.14
3	B	346	LEU	N-CA-C	6.24	119.52	110.28
5	g	204	SER	N-CA-C	-6.24	101.71	110.50
8	b	89	GLU	N-CA-C	-6.22	103.78	111.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	F	262	ASP	N-CA-C	6.21	118.13	111.36
3	F	346	LEU	N-CA-C	6.04	119.22	110.28
3	D	379	ILE	N-CA-C	5.98	117.02	111.45
2	A	11	LYS	N-CA-C	-5.95	105.68	113.12
3	D	124	VAL	N-CA-C	-5.93	99.76	108.54
3	B	186	ILE	CB-CA-C	-5.92	104.39	111.97
2	A	376	MET	N-CA-C	5.88	117.77	111.36
3	D	374	MET	N-CA-C	5.88	120.31	113.20
7	p	105	ASP	CA-C-N	-5.86	109.14	121.80
7	p	105	ASP	C-N-CA	-5.86	109.14	121.80
1	a	181	THR	N-CA-C	5.86	117.66	111.28
1	a	114	LEU	CA-C-N	-5.82	113.52	121.61
1	a	114	LEU	C-N-CA	-5.82	113.52	121.61
5	g	263	LYS	N-CA-C	5.78	118.16	110.53
3	D	379	ILE	CB-CA-C	-5.78	104.35	111.92
1	a	160	TYR	N-CA-C	5.73	117.98	108.99
7	p	106	LYS	CA-C-N	-5.73	113.34	120.56
7	p	106	LYS	C-N-CA	-5.73	113.34	120.56
2	E	449	LEU	N-CA-C	5.70	118.11	110.35
3	F	263	VAL	N-CA-C	5.69	116.71	111.81
2	C	362	ILE	N-CA-C	5.67	116.44	110.72
3	B	118	VAL	N-CA-C	5.66	117.55	112.17
3	B	310	GLN	N-CA-C	5.64	117.51	111.36
3	F	271	PHE	O-C-N	-5.58	116.43	123.01
2	A	179	VAL	CB-CA-C	-5.55	104.87	111.97
2	A	30	GLY	CA-C-N	5.47	131.59	122.73
2	A	30	GLY	C-N-CA	5.47	131.59	122.73
3	B	195	GLY	N-CA-C	5.46	120.22	111.64
3	D	171	PHE	CA-C-N	-5.43	117.43	121.61
3	D	171	PHE	C-N-CA	-5.43	117.43	121.61
3	D	407	ILE	N-CA-C	5.42	116.20	110.72
3	D	274	ASN	CA-CB-CG	5.41	118.01	112.60
2	C	302	ALA	N-CA-C	5.40	117.11	108.41
3	D	271	PHE	CA-C-N	5.40	130.46	123.11
3	D	271	PHE	C-N-CA	5.40	130.46	123.11
3	D	421	VAL	N-CA-C	-5.38	105.88	111.58
5	g	295	LEU	N-CA-C	5.34	117.10	111.28
3	D	186	ILE	CB-CA-C	-5.31	104.97	112.14
5	g	202	PHE	N-CA-C	5.27	117.11	111.36
2	A	298	LEU	N-CA-C	5.26	117.01	111.28
5	g	157	ILE	N-CA-C	5.22	115.48	108.17
2	C	15	GLU	N-CA-C	-5.20	105.61	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	a	182	LYS	CA-C-N	-5.16	113.39	119.84
1	a	182	LYS	C-N-CA	-5.16	113.39	119.84
2	A	108	VAL	N-CA-C	-5.14	102.11	108.89
3	B	404	ILE	N-CA-C	5.12	115.89	110.72
1	a	133	ASP	N-CA-C	-5.08	102.76	110.28
2	E	130	ILE	N-CA-C	5.08	115.86	110.72
3	D	222	ILE	N-CA-C	-5.07	101.07	108.17
3	F	274	ASN	OD1-CG-ND2	5.06	127.66	122.60

There are no chirality outliers.

All (23) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	A	262	ASP	Peptide
2	A	30	GLY	Mainchain
3	B	273	ASP	Peptide
2	C	10	SER	Peptide
2	C	262	ASP	Peptide
2	E	226	ALA	Peptide
2	E	262	ASP	Peptide
6	G	77	ALA	Mainchain
6	H	77	ALA	Mainchain
6	I	77	ALA	Mainchain
6	J	77	ALA	Mainchain
6	K	77	ALA	Mainchain
6	L	77	ALA	Mainchain
6	M	77	ALA	Mainchain
6	N	77	ALA	Mainchain
6	O	77	ALA	Mainchain
6	P	77	ALA	Mainchain
6	Q	77	ALA	Mainchain
6	R	77	ALA	Mainchain
6	S	77	ALA	Mainchain
6	T	77	ALA	Mainchain
8	b	181	GLU	Mainchain
7	p	105	ASP	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	1741	0	1788	696	0
2	A	3858	0	3923	754	0
2	C	3851	0	3928	371	0
2	E	3818	0	3888	339	0
3	B	3636	0	3692	254	0
3	D	3627	0	3679	212	0
3	F	3619	0	3668	201	0
4	e	1010	0	1040	155	0
5	g	2497	0	2585	377	0
6	G	544	0	581	120	0
6	H	544	0	581	129	0
6	I	544	0	581	109	0
6	J	544	0	581	112	0
6	K	544	0	581	108	0
6	L	544	0	581	122	0
6	M	544	0	581	120	0
6	N	544	0	581	114	0
6	O	544	0	581	115	0
6	P	544	0	581	108	0
6	Q	544	0	581	102	0
6	R	544	0	581	116	0
6	S	544	0	581	116	0
6	T	544	0	581	114	0
7	p	1124	0	1147	1219	0
8	b	1299	0	1314	928	0
9	d	1383	0	1408	287	0
10	A	1	0	0	0	0
10	B	1	0	0	0	0
10	C	1	0	0	0	0
10	E	1	0	0	0	0
10	F	1	0	0	0	0
11	A	31	0	12	1	0
11	C	31	0	12	1	0
11	E	31	0	12	1	0
12	B	27	0	12	2	0
12	F	27	0	12	0	0
All	All	39231	0	40254	4963	0

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

All (4963) 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)
2:A:9:ILE:HG21	8:b:144:VAL:CG2	1.23	1.68
2:A:7:ASP:CA	7:p:203:LEU:HD12	1.20	1.66
7:p:185:LEU:CD2	8:b:121:PHE:CE2	1.75	1.66
1:a:24:GLN:HB2	7:p:83:LEU:CD2	1.25	1.66
1:a:36:HIS:CE1	7:p:89:THR:HG21	1.23	1.65
1:a:139:ALA:HB2	7:p:94:MET:CG	1.23	1.64
7:p:162:MET:HE2	8:b:100:TYR:CZ	1.32	1.64
7:p:140:LEU:HD13	8:b:79:GLU:CG	1.22	1.64
7:p:123:ILE:CB	8:b:64:ILE:HD11	1.29	1.63
1:a:161:PHE:CZ	1:a:163:LYS:HD2	1.29	1.62
7:p:185:LEU:HD23	8:b:121:PHE:CE2	1.13	1.61
1:a:161:PHE:CE1	1:a:163:LYS:CG	1.83	1.61
1:a:114:LEU:CB	8:b:38:LEU:HB2	1.27	1.59
2:A:9:ILE:CD1	8:b:140:VAL:HG12	1.18	1.59
7:p:139:GLN:CB	8:b:78:LEU:HD12	1.12	1.59
7:p:159:LEU:HD21	8:b:95:PHE:CZ	1.38	1.59
8:b:160:LEU:HD11	8:b:164:LEU:CA	1.13	1.59
2:A:9:ILE:HD11	8:b:140:VAL:CG1	1.20	1.58
1:a:70:ASN:CB	8:b:53:LEU:HB3	1.21	1.58
7:p:140:LEU:CD1	8:b:79:GLU:HG3	1.10	1.58
1:a:161:PHE:HE1	1:a:163:LYS:CG	1.07	1.58
2:A:18:GLU:CB	7:p:217:LYS:HZ2	1.12	1.57
2:A:24:VAL:HG23	8:b:179:MET:CE	1.16	1.57
1:a:39:VAL:HG12	7:p:93:ILE:CG1	1.31	1.56
2:A:13:ILE:CD1	2:A:16:ARG:HH22	1.09	1.56
4:e:21:GLU:HG2	4:e:34:LEU:CD2	1.36	1.56
2:A:18:GLU:CA	7:p:217:LYS:CD	1.83	1.56
7:p:151:ALA:HB2	8:b:89:GLU:CA	1.26	1.56
2:A:6:ALA:CB	7:p:204:ASP:HA	1.11	1.56
7:p:123:ILE:CG2	8:b:64:ILE:CD1	1.75	1.56
7:p:166:THR:HG21	8:b:103:ILE:CG1	1.31	1.56
2:A:3:THR:HG21	7:p:196:LYS:CA	1.23	1.56
2:A:7:ASP:CB	7:p:203:LEU:HD12	1.08	1.56
2:A:3:THR:CG2	7:p:196:LYS:HA	1.24	1.55
2:A:9:ILE:CG2	8:b:144:VAL:HG21	1.10	1.55
2:A:18:GLU:HB2	7:p:217:LYS:CE	1.27	1.55
2:A:9:ILE:CD1	8:b:140:VAL:CG1	1.74	1.55
1:a:65:PRO:CB	1:a:70:ASN:HD21	0.96	1.55
1:a:54:ALA:C	7:p:112:LEU:HD11	1.27	1.54
1:a:143:LEU:CD1	7:p:98:LEU:HD21	1.08	1.54
7:p:148:MET:CB	8:b:88:VAL:CG2	1.79	1.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:13:ILE:HG13	8:b:144:VAL:CG1	1.33	1.54
9:d:222:THR:CG2	9:d:234:ASP:HB2	1.23	1.54
7:p:140:LEU:CD2	8:b:78:LEU:HD22	1.30	1.54
7:p:166:THR:CG2	8:b:103:ILE:CG1	1.86	1.54
1:a:116:PRO:CA	8:b:31:LEU:HB2	1.09	1.53
2:A:77:MET:CE	2:A:112:LEU:HD21	1.37	1.53
1:a:139:ALA:CB	7:p:94:MET:HG2	1.36	1.53
2:A:14:ARG:CG	7:p:213:ASP:HA	1.11	1.53
1:a:47:ILE:HD11	7:p:100:LEU:CB	1.36	1.52
1:a:64:ILE:C	8:b:57:LYS:CE	1.83	1.51
1:a:140:LEU:HD21	7:p:97:PHE:CE2	1.41	1.51
1:a:39:VAL:CG1	7:p:93:ILE:HG12	1.07	1.51
1:a:114:LEU:HB3	8:b:38:LEU:CB	1.34	1.51
1:a:134:ILE:HG23	1:a:191:PHE:CZ	1.42	1.51
7:p:185:LEU:HD23	8:b:121:PHE:CZ	1.47	1.50
2:A:6:ALA:CB	7:p:204:ASP:CA	1.87	1.49
1:a:161:PHE:CE1	1:a:163:LYS:HG3	1.41	1.49
1:a:143:LEU:HD11	7:p:98:LEU:CD2	1.37	1.48
2:A:6:ALA:HB1	7:p:204:ASP:CA	1.37	1.47
7:p:140:LEU:CD2	8:b:78:LEU:CD2	1.87	1.47
2:A:18:GLU:HB2	7:p:217:LYS:CD	1.45	1.47
8:b:160:LEU:CD1	8:b:163:GLU:C	1.85	1.46
2:A:7:ASP:HB2	7:p:203:LEU:CD1	1.45	1.46
5:g:281:ILE:HA	6:N:41:ARG:NH2	1.27	1.46
7:p:123:ILE:HG23	8:b:64:ILE:CD1	1.00	1.46
1:a:114:LEU:HD13	8:b:38:LEU:CA	1.41	1.46
9:d:222:THR:HG22	9:d:234:ASP:CB	0.99	1.46
7:p:214:ILE:HG21	8:b:145:PHE:CD1	1.51	1.46
2:A:18:GLU:CB	7:p:217:LYS:CD	1.94	1.45
7:p:127:LEU:HD12	8:b:63:THR:C	1.38	1.45
7:p:185:LEU:CD2	8:b:125:LYS:CE	1.89	1.45
7:p:147:VAL:HG21	8:b:85:LEU:CD1	1.44	1.45
7:p:148:MET:CB	8:b:88:VAL:HG21	1.42	1.45
1:a:24:GLN:CB	7:p:83:LEU:HD22	1.00	1.45
7:p:140:LEU:HD23	8:b:78:LEU:CD2	1.00	1.45
2:A:9:ILE:CD1	7:p:210:LEU:CD2	1.93	1.45
2:A:18:GLU:HB2	7:p:217:LYS:NZ	1.19	1.44
7:p:127:LEU:CD1	8:b:63:THR:OG1	1.64	1.44
2:A:7:ASP:CB	7:p:203:LEU:CD1	1.95	1.44
2:A:9:ILE:HB	7:p:207:ILE:N	1.29	1.44
9:d:222:THR:CG2	9:d:234:ASP:CB	1.79	1.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:36:HIS:NE2	7:p:89:THR:HG21	1.16	1.44
7:p:162:MET:HE2	8:b:100:TYR:CE2	1.52	1.44
2:C:30:GLY:C	2:C:31:THR:N	1.73	1.43
2:A:24:VAL:CG2	8:b:179:MET:SD	2.06	1.43
2:C:344:PHE:CD2	2:C:362:ILE:HG21	1.52	1.43
7:p:148:MET:N	8:b:85:LEU:HA	1.33	1.43
2:E:214:GLN:NE2	2:E:219:MET:HG2	1.29	1.43
1:a:207:LEU:CG	6:H:76:PHE:HD2	1.30	1.43
2:A:8:GLU:N	7:p:203:LEU:HD11	1.21	1.43
7:p:159:LEU:CD2	8:b:95:PHE:CZ	2.02	1.43
1:a:47:ILE:CD1	7:p:100:LEU:CD2	1.96	1.42
2:A:7:ASP:C	7:p:203:LEU:CD1	1.91	1.42
5:g:103:GLU:CG	6:R:41:ARG:HE	1.30	1.42
7:p:123:ILE:CA	8:b:64:ILE:HD11	1.49	1.42
1:a:114:LEU:CD1	8:b:38:LEU:HA	1.49	1.41
7:p:214:ILE:HD13	8:b:145:PHE:CD1	1.53	1.41
1:a:103:LEU:HD12	7:p:109:TYR:CE1	1.54	1.41
1:a:116:PRO:C	8:b:31:LEU:CB	1.93	1.41
2:A:18:GLU:CA	7:p:217:LYS:HD3	0.93	1.41
7:p:123:ILE:CG2	8:b:64:ILE:HD11	1.41	1.41
1:a:114:LEU:CD2	8:b:37:VAL:C	1.94	1.41
2:A:13:ILE:HD13	2:A:16:ARG:NH2	1.13	1.41
7:p:148:MET:CA	8:b:88:VAL:HB	1.36	1.40
2:C:355:ARG:NH2	3:B:389:GLN:HE22	0.96	1.40
7:p:148:MET:HB3	8:b:88:VAL:CG2	0.94	1.40
2:A:13:ILE:HG12	7:p:210:LEU:CG	1.51	1.40
7:p:156:SER:CA	8:b:95:PHE:HE2	1.31	1.40
2:E:279:ARG:NH1	5:g:361:ASN:HD21	0.92	1.40
1:a:119:ILE:CB	8:b:31:LEU:HD21	1.49	1.39
5:g:239:ILE:HD12	5:g:303:GLN:NE2	1.16	1.39
1:a:117:TRP:N	8:b:31:LEU:HB3	1.33	1.39
3:F:20:LEU:CD1	3:F:90:GLU:OE2	1.70	1.39
7:p:139:GLN:CB	8:b:78:LEU:CD1	1.96	1.39
7:p:214:ILE:CD1	8:b:145:PHE:CD1	2.06	1.39
1:a:114:LEU:C	8:b:34:LEU:HG	1.06	1.38
5:g:113:ARG:NH1	5:g:205:GLU:HB3	1.37	1.38
7:p:156:SER:HA	8:b:95:PHE:CE2	1.57	1.38
1:a:116:PRO:C	8:b:31:LEU:HB2	1.46	1.36
1:a:208:VAL:CG2	1:a:209:PRO:HD2	1.55	1.36
2:A:7:ASP:C	7:p:203:LEU:HD11	1.45	1.36
2:A:7:ASP:CG	7:p:203:LEU:HA	1.47	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:7:ASP:CA	7:p:206:GLN:H	1.37	1.36
1:a:115:LEU:N	8:b:34:LEU:HG	1.40	1.36
1:a:114:LEU:HD22	8:b:38:LEU:N	1.10	1.36
1:a:116:PRO:CA	8:b:31:LEU:CB	2.01	1.36
2:A:13:ILE:CG1	7:p:210:LEU:HG	1.56	1.36
7:p:127:LEU:HD12	8:b:63:THR:O	1.20	1.36
7:p:166:THR:CG2	8:b:103:ILE:HG12	1.49	1.36
8:b:82:ARG:CG	8:b:85:LEU:HD21	1.54	1.36
2:A:17:ILE:CD1	7:p:214:ILE:O	1.74	1.35
7:p:185:LEU:CD2	8:b:125:LYS:HE2	1.48	1.35
2:E:464:TYR:CE1	2:E:468:ASN:ND2	1.84	1.35
3:B:71:ASN:HD21	9:d:77:ARG:NH2	1.20	1.35
2:A:14:ARG:NH1	7:p:216:LYS:HD2	1.32	1.35
2:A:18:GLU:CG	7:p:217:LYS:NZ	1.90	1.35
3:B:191:LYS:CE	3:B:219:SER:HB2	1.56	1.35
1:a:161:PHE:CZ	1:a:163:LYS:CD	2.07	1.34
2:E:279:ARG:NH1	5:g:361:ASN:ND2	1.70	1.34
2:E:464:TYR:HE1	2:E:468:ASN:ND2	1.16	1.34
1:a:24:GLN:HB2	7:p:83:LEU:CG	1.55	1.34
1:a:35:ILE:CB	7:p:92:ILE:HG21	1.54	1.34
1:a:114:LEU:HD22	8:b:37:VAL:C	1.28	1.34
2:A:7:ASP:CA	7:p:203:LEU:CD1	1.99	1.34
2:A:9:ILE:CG2	7:p:210:LEU:HB3	1.25	1.34
1:a:65:PRO:HB2	1:a:70:ASN:ND2	1.03	1.34
1:a:134:ILE:CD1	7:p:90:LEU:HD22	1.53	1.34
2:C:344:PHE:CD2	2:C:362:ILE:CG2	2.10	1.33
7:p:185:LEU:HD22	8:b:121:PHE:CD2	1.64	1.33
1:a:24:GLN:CG	7:p:83:LEU:HD22	1.56	1.33
2:A:9:ILE:HB	7:p:206:GLN:C	1.53	1.33
7:p:185:LEU:HD21	8:b:125:LYS:CE	1.46	1.33
1:a:207:LEU:HG	6:H:76:PHE:CD2	1.63	1.33
2:A:3:THR:HG21	7:p:196:LYS:N	1.40	1.33
1:a:116:PRO:HB2	8:b:31:LEU:CD1	1.58	1.33
1:a:164:TYR:HD2	1:a:166:GLN:CG	1.40	1.33
1:a:165:ILE:CG2	1:a:168:THR:O	1.75	1.32
1:a:36:HIS:CE1	7:p:89:THR:CG2	2.10	1.32
2:A:4:ILE:HG22	7:p:203:LEU:CB	1.60	1.32
2:A:14:ARG:CG	7:p:213:ASP:CA	2.06	1.32
2:A:12:ILE:H	7:p:206:GLN:NE2	1.26	1.32
1:a:70:ASN:CB	8:b:53:LEU:CB	2.07	1.31
7:p:214:ILE:CG2	8:b:145:PHE:HD1	1.41	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:12:ILE:HB	7:p:210:LEU:CD1	1.58	1.31
1:a:24:GLN:CB	7:p:83:LEU:CD2	1.90	1.31
2:A:14:ARG:HH12	7:p:216:LYS:CD	1.42	1.31
4:e:119:LEU:HD11	4:e:123:ARG:NE	1.45	1.31
7:p:151:ALA:CB	8:b:89:GLU:HA	1.59	1.31
1:a:143:LEU:CD1	7:p:98:LEU:CD2	1.99	1.30
5:g:240:CYS:HB3	5:g:246:CYS:SG	1.69	1.30
1:a:64:ILE:C	8:b:57:LYS:HE3	0.89	1.30
7:p:148:MET:SD	8:b:84:ARG:CB	2.01	1.30
8:b:160:LEU:CG	8:b:164:LEU:H	1.43	1.30
3:D:50:LYS:HE2	3:D:92:ILE:CD1	1.59	1.30
3:D:293:PRO:CD	5:g:357:VAL:HG21	1.58	1.30
9:d:224:ARG:NH1	9:d:232:LEU:CD1	1.95	1.30
1:a:70:ASN:HB3	8:b:53:LEU:CB	1.61	1.30
2:A:24:VAL:CG2	8:b:179:MET:CE	2.10	1.30
2:A:24:VAL:O	8:b:179:MET:HE1	1.28	1.29
1:a:134:ILE:CG2	1:a:191:PHE:CE2	2.15	1.29
2:A:9:ILE:HD12	7:p:210:LEU:CD2	1.57	1.29
4:e:119:LEU:CD1	4:e:123:ARG:NE	1.95	1.29
7:p:131:LYS:N	8:b:67:SER:OG	1.65	1.29
4:e:34:LEU:HB2	6:L:42:GLN:NE2	1.46	1.29
7:p:211:SER:N	8:b:144:VAL:CG1	1.93	1.29
1:a:116:PRO:CB	8:b:31:LEU:HB2	1.63	1.29
2:E:279:ARG:HH11	5:g:361:ASN:ND2	1.24	1.29
2:A:18:GLU:CB	7:p:217:LYS:HD3	1.59	1.29
5:g:240:CYS:CB	5:g:246:CYS:SG	2.18	1.29
1:a:134:ILE:CG2	1:a:191:PHE:CZ	2.14	1.29
2:A:9:ILE:HG23	7:p:210:LEU:CD2	1.63	1.29
7:p:129:GLY:O	8:b:71:ARG:HD3	1.27	1.29
1:a:134:ILE:HG22	1:a:191:PHE:CD2	1.68	1.28
2:C:26:VAL:HG12	2:C:46:ASP:OD2	1.26	1.28
7:p:123:ILE:HG23	8:b:64:ILE:CG1	1.63	1.28
2:C:169:ILE:CG2	2:C:344:PHE:CD1	2.16	1.28
1:a:114:LEU:C	8:b:34:LEU:CG	2.02	1.28
9:d:224:ARG:HH11	9:d:232:LEU:CD1	1.44	1.28
1:a:54:ALA:O	7:p:112:LEU:HD11	1.25	1.27
4:e:21:GLU:CG	4:e:34:LEU:CD2	2.11	1.27
1:a:161:PHE:CE1	1:a:163:LYS:CB	2.15	1.27
8:b:82:ARG:O	8:b:85:LEU:HG	1.22	1.27
1:a:119:ILE:H	8:b:31:LEU:CD2	1.45	1.27
1:a:64:ILE:O	8:b:57:LYS:HE3	1.11	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:5:ARG:CZ	9:d:154:ARG:HH21	1.47	1.26
2:E:214:GLN:NE2	2:E:219:MET:CG	1.97	1.26
8:b:160:LEU:HD13	8:b:163:GLU:C	1.53	1.26
1:a:115:LEU:O	8:b:34:LEU:HD23	1.35	1.26
1:a:164:TYR:CD2	1:a:166:GLN:HG3	1.69	1.26
2:A:9:ILE:HB	7:p:207:ILE:CA	1.65	1.26
8:b:160:LEU:HD13	8:b:163:GLU:CA	1.63	1.26
2:A:17:ILE:C	7:p:217:LYS:CB	2.08	1.26
7:p:148:MET:CA	8:b:88:VAL:CB	2.11	1.26
2:A:9:ILE:CG2	7:p:207:ILE:HA	1.66	1.26
7:p:139:GLN:HB2	8:b:78:LEU:CD1	1.62	1.26
2:A:13:ILE:CG1	8:b:144:VAL:CG1	2.13	1.25
2:A:14:ARG:HG3	7:p:213:ASP:CA	1.63	1.25
2:A:18:GLU:CB	7:p:217:LYS:NZ	1.75	1.25
7:p:212:ASP:O	7:p:215:VAL:HG12	1.17	1.25
8:b:76:GLU:O	8:b:80:LYS:HG2	1.31	1.25
7:p:156:SER:CA	8:b:95:PHE:CE2	2.14	1.25
1:a:114:LEU:CD2	8:b:38:LEU:N	1.96	1.25
2:C:355:ARG:NH2	3:B:389:GLN:NE2	1.79	1.25
2:A:8:GLU:N	7:p:203:LEU:CD1	1.91	1.25
7:p:151:ALA:CB	8:b:89:GLU:CA	2.09	1.25
2:A:9:ILE:CD1	7:p:210:LEU:HD22	1.62	1.25
1:a:122:LEU:CD1	1:a:127:LEU:HD11	1.67	1.25
2:E:111:ALA:HB2	2:E:227:GLU:OE2	1.29	1.25
2:A:17:ILE:C	7:p:217:LYS:HB3	1.60	1.25
7:p:123:ILE:O	8:b:64:ILE:HG12	1.34	1.25
5:g:103:GLU:CG	6:R:41:ARG:NE	1.98	1.24
5:g:123:VAL:CG1	5:g:308:LEU:HD23	1.67	1.24
1:a:64:ILE:O	8:b:57:LYS:CE	1.81	1.24
7:p:162:MET:CE	8:b:100:TYR:CZ	2.21	1.23
2:C:37:ASP:OD2	3:B:291:ARG:NE	1.67	1.23
4:e:34:LEU:HD12	6:K:43:PRO:CG	1.66	1.23
8:b:160:LEU:HG	8:b:164:LEU:CB	1.67	1.23
5:g:137:LEU:HD11	5:g:213:LEU:CD1	1.69	1.23
8:b:82:ARG:HG3	8:b:85:LEU:CD2	1.68	1.23
2:C:208:GLN:NE2	3:B:144:THR:HG23	1.52	1.23
2:E:111:ALA:CB	2:E:227:GLU:OE2	1.87	1.23
2:A:7:ASP:N	7:p:203:LEU:HG	1.54	1.23
2:A:464:TYR:OH	2:A:496:GLU:OE1	1.53	1.23
1:a:103:LEU:HD12	7:p:109:TYR:CZ	1.73	1.22
7:p:211:SER:CA	8:b:144:VAL:HG12	1.69	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:d:224:ARG:NH1	9:d:232:LEU:HD12	1.49	1.22
2:C:4:ILE:HG22	9:d:74:THR:CG2	1.68	1.22
2:A:9:ILE:HG13	7:p:207:ILE:CD1	1.68	1.22
7:p:123:ILE:CG2	8:b:64:ILE:CG1	2.16	1.22
7:p:214:ILE:HD13	8:b:145:PHE:CG	1.75	1.22
2:A:3:THR:CB	7:p:196:LYS:HA	1.69	1.22
2:A:13:ILE:HG22	7:p:214:ILE:N	1.53	1.22
5:g:123:VAL:CG1	5:g:308:LEU:CD2	2.17	1.22
1:a:134:ILE:CD1	7:p:90:LEU:CD2	2.16	1.21
1:a:164:TYR:CD2	1:a:166:GLN:CG	2.23	1.21
2:A:24:VAL:O	8:b:179:MET:CE	1.87	1.21
7:p:148:MET:HA	8:b:88:VAL:CB	1.70	1.21
2:C:169:ILE:HG21	2:C:344:PHE:CD1	1.75	1.21
7:p:193:GLU:HG3	7:p:196:LYS:CE	1.68	1.21
2:A:17:ILE:CG2	7:p:217:LYS:HB2	1.71	1.21
2:C:5:ARG:NH1	9:d:154:ARG:HE	1.39	1.21
2:C:9:ILE:CG2	2:C:12:ILE:HD12	1.71	1.21
2:E:494:ILE:CG2	2:E:498:MET:HE2	1.70	1.20
2:A:13:ILE:CD1	2:A:16:ARG:NH2	1.77	1.20
1:a:207:LEU:CG	6:H:76:PHE:CD2	2.21	1.20
1:a:207:LEU:CD2	6:H:76:PHE:CD2	2.23	1.20
2:A:24:VAL:HG23	8:b:179:MET:SD	1.77	1.20
8:b:160:LEU:HD12	8:b:160:LEU:O	1.42	1.19
1:a:69:GLN:HG2	7:p:119:ARG:HH22	1.07	1.19
5:g:113:ARG:HH11	5:g:205:GLU:CB	1.55	1.19
1:a:104:PHE:CE1	7:p:100:LEU:HD23	1.76	1.19
1:a:134:ILE:HD12	1:a:135:ASN:N	1.55	1.19
3:F:411:ASP:CA	3:F:418:ARG:HH22	1.55	1.19
5:g:239:ILE:CD1	5:g:303:GLN:NE2	2.05	1.19
7:p:127:LEU:CD1	8:b:63:THR:O	1.89	1.19
7:p:211:SER:CA	8:b:144:VAL:CG1	2.20	1.19
2:A:17:ILE:HD13	7:p:217:LYS:N	1.46	1.19
7:p:166:THR:HG22	8:b:103:ILE:CD1	1.73	1.19
2:C:6:ALA:O	2:C:7:ASP:OD1	1.61	1.18
6:O:62:ALA:O	6:O:65:ILE:HG22	1.43	1.18
7:p:139:GLN:CA	8:b:78:LEU:HD12	1.56	1.18
7:p:166:THR:HG22	8:b:103:ILE:HD11	1.22	1.18
2:A:12:ILE:C	7:p:213:ASP:OD2	1.85	1.18
6:N:62:ALA:O	6:N:65:ILE:HG22	1.43	1.18
6:P:62:ALA:O	6:P:65:ILE:HG22	1.43	1.18
6:Q:62:ALA:O	6:Q:65:ILE:HG22	1.43	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:62:ALA:O	6:L:65:ILE:HG22	1.43	1.18
1:a:116:PRO:HA	8:b:31:LEU:HB2	1.22	1.18
2:A:20:TYR:OH	9:d:242:GLU:CG	1.91	1.18
6:M:62:ALA:O	6:M:65:ILE:HG22	1.43	1.18
1:a:119:ILE:N	8:b:31:LEU:HD23	1.57	1.18
2:C:279:ARG:HH22	5:g:363:CYS:CB	1.56	1.18
2:A:9:ILE:CB	7:p:207:ILE:HA	1.72	1.18
1:a:36:HIS:CG	7:p:89:THR:OG1	1.97	1.18
2:A:6:ALA:O	7:p:206:GLN:N	1.75	1.18
2:A:9:ILE:CG1	8:b:140:VAL:CG1	2.21	1.18
2:A:12:ILE:CB	7:p:210:LEU:HD13	1.60	1.18
7:p:129:GLY:O	8:b:71:ARG:CD	1.90	1.18
1:a:47:ILE:HD11	7:p:100:LEU:CD2	1.67	1.17
2:A:24:VAL:CG2	8:b:179:MET:HE2	1.67	1.17
6:R:62:ALA:O	6:R:65:ILE:HG22	1.43	1.17
2:A:9:ILE:CG2	7:p:210:LEU:HD23	1.73	1.17
1:a:35:ILE:CG1	7:p:92:ILE:HG21	1.72	1.17
2:A:17:ILE:CB	7:p:214:ILE:O	1.93	1.17
1:a:35:ILE:CD1	7:p:92:ILE:HG21	1.73	1.17
1:a:207:LEU:CD2	6:H:76:PHE:HD2	1.58	1.17
2:E:344:PHE:CD2	2:E:362:ILE:HG22	1.80	1.17
5:g:119:ALA:HB2	5:g:207:VAL:HG11	1.27	1.17
6:S:62:ALA:O	6:S:65:ILE:HG22	1.43	1.17
2:C:469:LYS:HD2	2:C:493:ALA:HB2	1.18	1.17
6:T:62:ALA:O	6:T:65:ILE:HG22	1.43	1.17
6:K:62:ALA:O	6:K:65:ILE:HG22	1.43	1.17
2:A:11:LYS:H	7:p:206:GLN:NE2	1.40	1.16
2:A:17:ILE:CD1	7:p:217:LYS:N	1.94	1.16
7:p:207:ILE:CD1	8:b:140:VAL:HG13	1.73	1.16
1:a:50:LEU:CB	7:p:104:LEU:HD11	1.74	1.16
2:C:386:GLU:OE1	2:C:413:ARG:HD2	1.43	1.16
5:g:124:THR:HG22	5:g:137:LEU:CD2	1.75	1.16
6:G:62:ALA:O	6:G:65:ILE:HG22	1.43	1.16
7:p:140:LEU:HD12	8:b:75:ILE:O	1.42	1.16
2:A:13:ILE:HG13	8:b:144:VAL:HG11	1.25	1.16
2:A:17:ILE:HG23	7:p:217:LYS:HB2	1.22	1.16
1:a:134:ILE:HD11	7:p:90:LEU:CD2	1.73	1.16
2:E:30:GLY:O	2:E:88:SER:HA	1.42	1.16
4:e:21:GLU:CD	4:e:34:LEU:HD21	1.69	1.16
6:J:62:ALA:O	6:J:65:ILE:HG22	1.43	1.16
2:A:17:ILE:O	7:p:217:LYS:HB3	1.42	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:151:ALA:CB	8:b:88:VAL:C	2.19	1.15
7:p:214:ILE:CG2	9:d:247:GLN:OE1	1.93	1.15
1:a:39:VAL:HG21	1:a:133:ASP:OD2	1.44	1.15
1:a:134:ILE:HG22	1:a:191:PHE:CG	1.80	1.15
2:C:386:GLU:OE1	2:C:413:ARG:CD	1.94	1.15
3:F:221:VAL:HG11	3:F:232:VAL:HG21	1.24	1.15
2:A:7:ASP:HA	7:p:206:GLN:H	1.02	1.15
7:p:147:VAL:CG2	8:b:85:LEU:CD1	2.10	1.15
3:F:431:LEU:CD2	3:F:458:PHE:HZ	1.60	1.15
8:b:61:LEU:HD11	8:b:65:ARG:HD2	1.20	1.15
1:a:208:VAL:CG2	1:a:209:PRO:CD	2.25	1.15
6:H:62:ALA:O	6:H:65:ILE:HG22	1.43	1.15
6:I:62:ALA:O	6:I:65:ILE:HG22	1.43	1.15
1:a:163:LYS:CE	1:a:179:ASP:OD2	1.94	1.14
2:C:37:ASP:OD1	3:B:291:ARG:NH2	1.81	1.14
7:p:147:VAL:CG2	8:b:85:LEU:HD13	1.54	1.14
9:d:222:THR:CG2	9:d:234:ASP:HB3	1.69	1.14
1:a:62:GLN:H	7:p:119:ARG:CD	1.59	1.14
2:A:13:ILE:CG2	7:p:214:ILE:H	1.60	1.14
5:g:281:ILE:HD12	6:M:41:ARG:CG	1.77	1.14
7:p:148:MET:CE	8:b:84:ARG:HG3	1.76	1.14
1:a:122:LEU:HD22	1:a:125:GLY:H	1.09	1.14
1:a:200:VAL:HG22	6:H:69:VAL:HG21	1.19	1.14
2:A:70:ASN:HA	9:d:71:VAL:HG12	1.21	1.14
7:p:123:ILE:HA	8:b:64:ILE:CD1	1.78	1.14
2:A:16:ARG:HH21	8:b:145:PHE:HB2	1.00	1.14
3:B:431:LEU:HD23	3:B:458:PHE:CZ	1.83	1.14
3:B:431:LEU:CD2	3:B:458:PHE:HZ	1.59	1.14
1:a:65:PRO:CB	1:a:70:ASN:ND2	1.73	1.14
2:C:355:ARG:HH22	3:B:389:GLN:NE2	1.37	1.14
3:D:100:VAL:CG1	3:D:256:MET:HE3	1.76	1.14
2:A:14:ARG:HA	7:p:213:ASP:C	1.60	1.14
7:p:140:LEU:HD11	8:b:75:ILE:HG23	1.27	1.14
1:a:24:GLN:HE22	1:a:195:LEU:HD11	1.06	1.13
1:a:74:TYR:HB3	8:b:53:LEU:HD21	1.16	1.13
1:a:119:ILE:HB	8:b:31:LEU:HD21	1.30	1.13
2:A:13:ILE:CB	7:p:213:ASP:HB3	1.52	1.13
5:g:123:VAL:HG13	5:g:308:LEU:CD2	1.78	1.13
7:p:133:THR:CG2	8:b:71:ARG:NH2	2.05	1.13
7:p:148:MET:SD	8:b:84:ARG:CG	1.08	1.13
1:a:119:ILE:CG1	8:b:31:LEU:HD21	1.53	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:9:ILE:HG22	2:C:12:ILE:HD12	1.21	1.13
2:C:169:ILE:HG21	2:C:344:PHE:CE1	1.83	1.13
2:A:6:ALA:O	7:p:207:ILE:N	1.81	1.13
2:A:17:ILE:HD12	7:p:218:VAL:HG22	1.14	1.13
2:A:18:GLU:N	7:p:217:LYS:CD	2.09	1.13
1:a:103:LEU:CD1	7:p:109:TYR:CE1	2.32	1.12
1:a:122:LEU:HD12	1:a:127:LEU:CD1	1.79	1.12
2:A:9:ILE:HA	7:p:210:LEU:HD22	1.19	1.13
3:B:387:ILE:CD1	3:B:455:ILE:HG23	1.76	1.12
3:F:299:GLN:NE2	3:F:305:GLU:OE1	1.80	1.12
2:A:9:ILE:HD11	8:b:140:VAL:HG11	1.15	1.12
7:p:148:MET:SD	8:b:84:ARG:HG2	0.66	1.12
7:p:214:ILE:HG22	9:d:247:GLN:OE1	1.48	1.12
1:a:36:HIS:NE2	7:p:89:THR:CG2	2.05	1.12
2:C:27:VAL:HB	2:C:47:GLU:HB2	1.23	1.12
2:A:77:MET:CE	2:A:112:LEU:CD2	2.26	1.12
7:p:123:ILE:CG2	8:b:60:ILE:HG12	1.80	1.12
7:p:126:GLN:CB	8:b:64:ILE:HG23	1.80	1.12
3:B:401:LEU:HD22	3:B:404:ILE:HD11	1.26	1.12
7:p:212:ASP:O	7:p:215:VAL:CG1	1.97	1.12
1:a:54:ALA:C	7:p:112:LEU:CD1	2.22	1.12
4:e:22:ILE:HG22	4:e:51:ILE:HG13	1.15	1.12
7:p:139:GLN:HB3	8:b:78:LEU:HD12	1.30	1.12
1:a:62:GLN:N	7:p:119:ARG:CD	2.11	1.11
3:D:296:VAL:N	5:g:350:THR:OG1	1.81	1.11
2:A:16:ARG:NH2	8:b:145:PHE:HB2	1.64	1.11
6:S:43:PRO:CB	6:T:48:LYS:HZ3	1.63	1.11
8:b:160:LEU:HD13	8:b:163:GLU:CB	1.78	1.11
1:a:54:ALA:CA	7:p:112:LEU:HD11	1.79	1.11
1:a:103:LEU:HB2	7:p:109:TYR:OH	1.49	1.11
1:a:161:PHE:CE1	1:a:163:LYS:CD	2.30	1.11
2:E:492:GLU:O	2:E:496:GLU:HG2	1.48	1.11
2:A:12:ILE:CB	7:p:210:LEU:CD1	2.17	1.11
7:p:108:TYR:CE1	7:p:112:LEU:CD1	2.33	1.11
7:p:140:LEU:HD13	8:b:79:GLU:CB	1.80	1.11
7:p:148:MET:HB3	8:b:88:VAL:HG23	1.18	1.11
3:D:50:LYS:CE	3:D:92:ILE:CD1	2.27	1.11
6:G:73:ALA:HA	7:p:84:PHE:CZ	1.86	1.11
8:b:160:LEU:HD11	8:b:163:GLU:C	1.58	1.11
3:F:431:LEU:HD23	3:F:458:PHE:HZ	1.11	1.11
3:B:112:ASN:OD1	3:B:118:VAL:HG21	1.50	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:191:LYS:HE2	3:B:219:SER:HB2	1.25	1.11
3:B:431:LEU:CD2	3:B:458:PHE:CZ	2.33	1.11
4:e:96:LEU:HD11	4:e:123:ARG:HG2	1.32	1.11
1:a:54:ALA:CA	7:p:112:LEU:CD1	2.29	1.10
1:a:64:ILE:HG22	8:b:57:LYS:HE2	1.19	1.10
2:A:77:MET:HE1	2:A:112:LEU:CD2	1.81	1.10
4:e:60:LEU:HD12	4:e:60:LEU:O	1.50	1.10
7:p:174:LEU:HD11	8:b:114:THR:OG1	1.49	1.10
8:b:82:ARG:HA	8:b:85:LEU:HD23	1.24	1.10
1:a:161:PHE:CZ	1:a:163:LYS:HB2	1.85	1.10
1:a:163:LYS:NZ	1:a:179:ASP:OD2	1.83	1.10
3:B:71:ASN:ND2	9:d:77:ARG:NH2	1.99	1.10
3:B:112:ASN:ND2	3:B:116:GLU:HB2	1.65	1.10
7:p:151:ALA:HB2	8:b:89:GLU:N	1.64	1.10
7:p:185:LEU:HG	8:b:125:LYS:HE3	1.32	1.10
1:a:119:ILE:O	8:b:26:ILE:HG13	1.50	1.10
2:C:279:ARG:HH22	5:g:363:CYS:HB2	1.12	1.10
3:F:294:SER:O	2:A:286:ALA:CB	2.00	1.10
4:e:19:VAL:CG2	4:e:53:LEU:HB2	1.79	1.10
5:g:103:GLU:HG3	6:R:41:ARG:NE	1.58	1.10
8:b:62:ASN:O	8:b:66:ASN:ND2	1.84	1.10
1:a:62:GLN:N	7:p:119:ARG:HD3	1.27	1.10
2:C:42:ILE:HD13	2:C:89:VAL:HG11	1.32	1.10
3:D:293:PRO:HD2	5:g:357:VAL:HG21	1.13	1.10
2:A:18:GLU:CG	7:p:217:LYS:HZ3	1.58	1.10
2:C:82:MET:HE2	2:C:82:MET:HA	1.26	1.10
3:D:275:ILE:HG22	3:D:326:ALA:O	1.50	1.10
2:A:20:TYR:CZ	9:d:242:GLU:HG3	1.86	1.10
2:A:138:MET:HG3	3:B:119:ASP:HA	1.31	1.10
7:p:123:ILE:HG22	8:b:64:ILE:HG13	1.34	1.10
1:a:50:LEU:CD1	7:p:104:LEU:HD21	1.81	1.09
1:a:51:LEU:HD13	7:p:107:ILE:HD12	1.21	1.09
1:a:115:LEU:N	8:b:34:LEU:CG	2.11	1.09
3:D:100:VAL:HG11	3:D:256:MET:HE3	1.27	1.09
2:A:4:ILE:HD13	7:p:199:THR:HA	1.27	1.09
2:A:9:ILE:CG1	7:p:207:ILE:HD13	1.80	1.09
1:a:50:LEU:HB3	7:p:104:LEU:HD11	1.14	1.09
2:A:6:ALA:CA	7:p:207:ILE:HG12	1.81	1.09
7:p:127:LEU:HD12	8:b:63:THR:CA	1.82	1.09
7:p:193:GLU:CG	7:p:196:LYS:HE2	1.82	1.09
9:d:222:THR:HG22	9:d:234:ASP:HB3	1.25	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:221:LEU:HD22	8:b:37:VAL:HG13	1.31	1.09
1:a:40:LEU:HA	7:p:96:GLU:CD	1.75	1.09
1:a:64:ILE:HD12	8:b:61:LEU:HB2	1.35	1.09
1:a:165:ILE:HG22	1:a:168:THR:O	1.51	1.09
7:p:137:VAL:CG2	8:b:73:LYS:O	1.80	1.09
7:p:143:GLN:C	8:b:85:LEU:HD23	1.78	1.09
1:a:122:LEU:HD23	1:a:124:HIS:H	1.09	1.09
1:a:208:VAL:HG22	1:a:209:PRO:HD2	1.18	1.09
8:b:161:ASN:O	8:b:165:HIS:HB3	1.49	1.09
3:F:410:LEU:O	3:F:418:ARG:NH2	1.86	1.08
2:A:9:ILE:HD12	8:b:140:VAL:HG12	1.14	1.08
3:B:387:ILE:HD13	3:B:455:ILE:HG23	1.23	1.08
7:p:123:ILE:CG2	8:b:64:ILE:HG13	1.82	1.08
7:p:185:LEU:CD2	8:b:125:LYS:HE3	1.78	1.08
8:b:145:PHE:CE2	8:b:149:LEU:HD11	1.87	1.08
1:a:134:ILE:HA	1:a:191:PHE:CD1	1.87	1.08
2:C:104:TYR:CD1	2:C:122:ILE:HD13	1.87	1.08
7:p:162:MET:O	8:b:103:ILE:HD13	1.43	1.08
2:A:7:ASP:N	7:p:203:LEU:CG	2.07	1.08
5:g:281:ILE:HG21	6:M:41:ARG:HA	1.35	1.08
9:d:179:VAL:HG22	9:d:210:LYS:HB2	1.30	1.08
1:a:35:ILE:HD12	7:p:92:ILE:CG2	1.84	1.08
1:a:70:ASN:HB2	8:b:53:LEU:HB3	1.34	1.08
1:a:116:PRO:HA	8:b:31:LEU:CB	1.76	1.08
2:A:9:ILE:CB	7:p:206:GLN:C	2.25	1.08
5:g:103:GLU:HG2	6:R:41:ARG:HE	1.18	1.08
1:a:161:PHE:CE1	1:a:163:LYS:HB2	1.81	1.08
2:A:13:ILE:CG1	8:b:144:VAL:HG12	1.77	1.08
3:B:112:ASN:OD1	3:B:118:VAL:CG2	2.01	1.08
7:p:126:GLN:HB3	8:b:64:ILE:HG23	1.35	1.08
7:p:193:GLU:HG3	7:p:196:LYS:HE2	1.13	1.08
1:a:24:GLN:H	7:p:83:LEU:HD23	1.16	1.07
2:C:5:ARG:CZ	9:d:154:ARG:NH2	2.17	1.07
2:A:9:ILE:HG21	7:p:207:ILE:HA	1.31	1.07
7:p:147:VAL:HG21	8:b:85:LEU:HD12	1.29	1.07
7:p:148:MET:CB	8:b:88:VAL:HG23	1.69	1.07
7:p:174:LEU:HD13	8:b:110:LEU:CG	1.84	1.07
7:p:174:LEU:CD1	8:b:110:LEU:HG	1.84	1.07
8:b:82:ARG:HA	8:b:85:LEU:CD2	1.83	1.07
1:a:54:ALA:O	7:p:112:LEU:CD1	2.03	1.07
3:F:20:LEU:HD13	3:F:90:GLU:OE2	1.46	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:6:ALA:HB3	7:p:204:ASP:N	1.41	1.07
2:A:9:ILE:HG23	8:b:144:VAL:HG21	1.31	1.07
5:g:124:THR:CG2	5:g:137:LEU:HD23	1.83	1.07
7:p:140:LEU:HD23	8:b:78:LEU:HD23	1.21	1.07
7:p:148:MET:CG	8:b:88:VAL:HG23	1.84	1.07
7:p:207:ILE:HD13	8:b:140:VAL:HG13	1.34	1.07
8:b:161:ASN:O	8:b:165:HIS:CB	2.02	1.07
1:a:39:VAL:HG11	7:p:93:ILE:HG12	1.30	1.07
1:a:54:ALA:CB	7:p:112:LEU:HD12	1.83	1.07
3:D:50:LYS:CE	3:D:92:ILE:HD11	1.82	1.07
7:p:136:GLU:CG	8:b:75:ILE:HG12	1.83	1.07
7:p:185:LEU:CG	8:b:125:LYS:HE3	1.83	1.07
8:b:133:GLN:O	8:b:137:ILE:HD12	1.52	1.07
1:a:221:LEU:CD2	8:b:37:VAL:HG13	1.85	1.07
2:E:359:ASN:ND2	2:E:362:ILE:HD12	1.70	1.07
2:A:18:GLU:CD	7:p:217:LYS:NZ	2.13	1.07
3:B:408:LEU:HD13	5:g:64:MET:SD	1.94	1.07
4:e:19:VAL:HA	4:e:53:LEU:HD13	1.30	1.07
5:g:251:GLU:OE2	5:g:270:MET:HB2	1.54	1.07
8:b:160:LEU:CG	8:b:164:LEU:CB	2.33	1.07
1:a:119:ILE:HB	8:b:31:LEU:CD2	1.85	1.07
2:E:433:GLU:OE1	2:E:462:ARG:HD3	1.53	1.07
2:A:4:ILE:CG2	7:p:203:LEU:HB2	1.83	1.07
2:A:9:ILE:CG2	8:b:144:VAL:CG2	1.96	1.07
2:A:13:ILE:HD11	8:b:144:VAL:HB	1.19	1.07
2:A:77:MET:HE1	2:A:112:LEU:HD21	1.23	1.07
3:B:112:ASN:HD22	3:B:116:GLU:HB2	1.07	1.07
7:p:159:LEU:CD2	8:b:95:PHE:CE1	2.38	1.07
1:a:39:VAL:CG1	7:p:93:ILE:CG1	2.03	1.06
1:a:47:ILE:CD1	7:p:100:LEU:CB	2.10	1.06
1:a:140:LEU:CD2	7:p:97:PHE:CE2	2.37	1.06
1:a:143:LEU:HD13	7:p:98:LEU:HD21	1.30	1.06
7:p:151:ALA:CB	8:b:88:VAL:O	2.03	1.06
9:d:152:SER:C	9:d:153:GLU:OE1	1.97	1.06
9:d:199:GLN:NE2	9:d:207:VAL:HG12	1.68	1.06
1:a:40:LEU:CA	7:p:96:GLU:OE2	2.03	1.06
1:a:193:ASN:ND2	1:a:227:GLN:HG3	1.69	1.06
2:E:214:GLN:NE2	2:E:219:MET:CB	2.17	1.06
2:E:382:LYS:HD3	2:E:442:THR:CG2	1.86	1.06
6:K:48:LYS:HZ3	6:J:43:PRO:CB	1.68	1.06
1:a:24:GLN:CA	7:p:83:LEU:HD22	1.86	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:22:ILE:HG22	4:e:51:ILE:CG1	1.84	1.06
4:e:38:ALA:HB2	6:L:41:ARG:HA	1.08	1.06
5:g:103:GLU:HG3	6:R:41:ARG:HE	0.95	1.06
5:g:149:LYS:HE2	5:g:155:TYR:HE1	1.18	1.06
7:p:211:SER:HA	8:b:144:VAL:HG12	1.10	1.06
2:A:9:ILE:HG23	7:p:210:LEU:CG	1.85	1.06
3:B:411:ASP:HA	3:B:418:ARG:HH21	1.11	1.06
3:B:431:LEU:HD23	3:B:458:PHE:HZ	0.93	1.06
7:p:162:MET:HE2	8:b:100:TYR:OH	1.54	1.06
2:E:494:ILE:HG22	2:E:498:MET:HE2	1.12	1.06
2:A:14:ARG:HH12	7:p:216:LYS:CE	1.69	1.06
2:A:17:ILE:CB	7:p:217:LYS:HB2	1.75	1.06
1:a:69:GLN:CG	7:p:119:ARG:HH22	1.67	1.05
1:a:116:PRO:CB	8:b:31:LEU:HD13	1.85	1.05
2:A:13:ILE:HG21	7:p:211:SER:O	1.56	1.05
2:A:17:ILE:HD12	7:p:214:ILE:O	1.55	1.05
4:e:19:VAL:HG23	4:e:53:LEU:CB	1.85	1.05
7:p:211:SER:OG	8:b:144:VAL:HG13	1.54	1.05
1:a:36:HIS:CD2	7:p:89:THR:HG21	1.90	1.05
1:a:61:PRO:HB3	7:p:115:PHE:CD2	1.50	1.05
1:a:103:LEU:CB	7:p:109:TYR:OH	2.05	1.05
1:a:117:TRP:N	8:b:31:LEU:CB	2.12	1.05
2:E:383:LEU:HD22	2:E:438:ILE:HD12	1.33	1.05
2:A:13:ILE:HB	7:p:213:ASP:HB3	1.36	1.05
2:A:14:ARG:NH1	7:p:216:LYS:CD	2.07	1.05
1:a:207:LEU:HD21	6:H:76:PHE:CD2	1.89	1.05
3:D:297:GLY:CA	5:g:353:ILE:HD12	1.85	1.05
2:A:18:GLU:CG	7:p:217:LYS:HZ2	1.58	1.05
6:M:48:LYS:HB3	6:L:46:GLU:OE1	1.57	1.05
7:p:151:ALA:HB3	8:b:88:VAL:C	1.80	1.05
1:a:119:ILE:CB	8:b:31:LEU:CD2	2.34	1.05
3:D:50:LYS:HE2	3:D:92:ILE:HD12	1.28	1.04
2:A:9:ILE:CG2	7:p:210:LEU:CB	2.05	1.04
2:A:9:ILE:HA	7:p:210:LEU:CD2	1.81	1.04
2:A:14:ARG:HA	7:p:213:ASP:O	1.55	1.04
2:A:17:ILE:HG23	7:p:217:LYS:CB	1.87	1.04
7:p:141:GLU:HA	8:b:81:ALA:H	1.13	1.04
3:F:431:LEU:CD2	3:F:458:PHE:CZ	2.39	1.04
2:A:17:ILE:C	7:p:217:LYS:HB2	1.81	1.04
7:p:170:VAL:N	8:b:107:LYS:HE3	1.49	1.04
7:p:185:LEU:CD2	8:b:121:PHE:CD2	2.30	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:70:ASN:CA	8:b:53:LEU:HB3	1.85	1.04
2:A:18:GLU:HA	7:p:217:LYS:CD	1.64	1.04
4:e:119:LEU:CD1	4:e:123:ARG:CZ	2.34	1.04
7:p:127:LEU:HD13	8:b:63:THR:OG1	0.87	1.04
9:d:87:ASP:CG	9:d:172:ILE:HD11	1.80	1.04
1:a:200:VAL:CG2	6:H:69:VAL:HG21	1.88	1.04
2:E:386:GLU:OE2	2:E:442:THR:HG23	1.56	1.04
3:F:411:ASP:HA	3:F:418:ARG:NH2	1.73	1.04
7:p:166:THR:HG21	8:b:103:ILE:HG13	1.08	1.04
7:p:174:LEU:HD13	8:b:110:LEU:HG	1.07	1.04
8:b:160:LEU:HD12	8:b:164:LEU:N	1.38	1.04
7:p:140:LEU:HD11	8:b:79:GLU:HG3	1.33	1.04
8:b:160:LEU:HG	8:b:164:LEU:HB3	1.38	1.04
4:e:38:ALA:HB3	6:L:41:ARG:HG3	1.07	1.03
6:P:43:PRO:CB	6:Q:48:LYS:HZ3	1.70	1.03
7:p:162:MET:O	8:b:103:ILE:CD1	2.05	1.03
1:a:137:THR:HG21	1:a:191:PHE:HB2	1.34	1.03
3:D:100:VAL:CG1	3:D:256:MET:CE	2.36	1.03
2:E:98:ILE:HD13	2:E:245:ALA:HB3	1.37	1.03
2:A:7:ASP:CB	7:p:203:LEU:HA	1.88	1.03
2:A:77:MET:HE3	2:A:112:LEU:HD21	1.38	1.03
7:p:185:LEU:HD22	8:b:121:PHE:CE2	1.75	1.03
1:a:51:LEU:HD21	7:p:104:LEU:HA	1.05	1.03
1:a:208:VAL:HG23	1:a:209:PRO:HD2	1.35	1.03
7:p:136:GLU:HB3	8:b:75:ILE:CG1	1.86	1.03
7:p:148:MET:SD	8:b:84:ARG:CD	2.46	1.03
8:b:160:LEU:HG	8:b:164:LEU:HB2	1.38	1.03
1:a:54:ALA:HB1	7:p:112:LEU:HD12	1.05	1.03
1:a:54:ALA:HB1	7:p:112:LEU:CD1	1.87	1.03
1:a:163:LYS:HE2	1:a:179:ASP:OD2	1.56	1.03
2:A:3:THR:CG2	7:p:196:LYS:CA	2.02	1.03
7:p:139:GLN:HB2	8:b:78:LEU:HD12	1.05	1.03
1:a:51:LEU:CD2	7:p:104:LEU:HA	1.87	1.03
1:a:103:LEU:CD1	7:p:109:TYR:OH	2.07	1.03
1:a:161:PHE:HZ	1:a:163:LYS:CD	1.52	1.03
2:C:5:ARG:NE	9:d:154:ARG:HH21	1.56	1.03
2:A:9:ILE:HG22	8:b:144:VAL:HG11	1.41	1.03
5:g:118:VAL:HG11	5:g:148:LEU:CD1	1.86	1.03
8:b:61:LEU:HD11	8:b:65:ARG:CD	1.87	1.03
3:F:411:ASP:HA	3:F:418:ARG:HH22	0.89	1.02
2:A:432:GLU:HG3	2:A:476:ILE:CG2	1.88	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:401:LEU:CD2	3:B:404:ILE:HD11	1.88	1.02
6:S:68:LEU:HD12	6:T:66:TYR:CG	1.95	1.02
7:p:130:VAL:O	8:b:71:ARG:N	1.91	1.02
7:p:162:MET:CE	8:b:100:TYR:CE2	2.38	1.02
1:a:221:LEU:HD22	8:b:37:VAL:CG1	1.89	1.02
2:C:169:ILE:CG2	2:C:344:PHE:HD1	1.58	1.02
2:A:8:GLU:HB2	7:p:203:LEU:HD21	1.36	1.02
6:T:43:PRO:CB	6:G:48:LYS:HZ3	1.72	1.02
6:H:43:PRO:HG2	6:I:42:GLN:HE22	1.23	1.02
7:p:144:ALA:O	8:b:85:LEU:HB3	1.56	1.02
1:a:35:ILE:HB	7:p:92:ILE:CG2	1.66	1.02
2:A:6:ALA:HB3	7:p:204:ASP:CA	1.71	1.02
2:A:9:ILE:HD13	7:p:210:LEU:HD22	1.04	1.02
3:B:20:LEU:CD2	3:B:92:ILE:HG22	1.88	1.02
5:g:123:VAL:HG11	5:g:308:LEU:CD2	1.84	1.02
5:g:149:LYS:HE2	5:g:155:TYR:CE1	1.95	1.02
3:F:237:GLY:HA3	3:F:249:VAL:HG21	1.42	1.02
2:A:9:ILE:C	7:p:206:GLN:HE21	1.68	1.02
4:e:21:GLU:CG	4:e:34:LEU:HD21	1.81	1.02
8:b:114:THR:O	8:b:117:THR:HG22	1.58	1.02
4:e:34:LEU:CD1	6:K:43:PRO:HG2	1.89	1.02
6:O:43:PRO:HG2	6:P:42:GLN:HE22	1.18	1.02
7:p:218:VAL:O	9:d:243:GLU:OE2	1.77	1.02
1:a:65:PRO:N	8:b:57:LYS:HE3	1.55	1.01
1:a:114:LEU:HD22	8:b:38:LEU:H	1.24	1.01
1:a:116:PRO:C	8:b:31:LEU:HB3	1.71	1.01
1:a:118:LYS:CA	8:b:30:ASN:ND2	2.20	1.01
1:a:182:LYS:HD2	1:a:238:TYR:CE1	1.95	1.01
6:T:40:ALA:O	6:G:42:GLN:OE1	1.77	1.01
7:p:148:MET:N	8:b:85:LEU:CA	2.22	1.01
7:p:151:ALA:CB	8:b:89:GLU:N	2.22	1.01
8:b:160:LEU:CG	8:b:164:LEU:N	2.11	1.01
2:C:344:PHE:CE2	2:C:362:ILE:CG2	2.43	1.01
5:g:281:ILE:CA	6:N:41:ARG:NH2	2.22	1.01
5:g:281:ILE:CD1	6:M:41:ARG:HG3	1.90	1.01
3:D:110:ILE:HG22	3:D:118:VAL:CG2	1.90	1.01
3:D:297:GLY:CA	5:g:353:ILE:CD1	2.39	1.01
2:A:7:ASP:CA	7:p:206:GLN:N	2.22	1.01
3:B:179:THR:O	3:B:182:ILE:HG22	1.60	1.01
6:S:43:PRO:CB	6:T:48:LYS:NZ	2.23	1.01
6:G:43:PRO:HG2	6:H:42:GLN:HE22	1.18	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:51:LEU:HD22	7:p:107:ILE:HB	1.04	1.01
1:a:114:LEU:HA	8:b:34:LEU:O	1.61	1.01
1:a:134:ILE:HD12	7:p:90:LEU:HD22	1.04	1.01
3:F:20:LEU:CD2	3:F:92:ILE:HG12	1.91	1.01
7:p:166:THR:OG1	8:b:107:LYS:HB2	1.60	1.01
7:p:185:LEU:CG	8:b:125:LYS:CE	2.34	1.01
3:F:447:LYS:NZ	3:F:482:GLU:OE2	1.93	1.01
6:K:42:GLN:OE1	6:J:40:ALA:O	1.77	1.01
1:a:118:LYS:CA	8:b:30:ASN:HD22	1.74	1.00
1:a:134:ILE:CG2	1:a:191:PHE:CE1	2.43	1.00
1:a:134:ILE:HD11	7:p:90:LEU:CD1	1.91	1.00
1:a:208:VAL:HG22	1:a:209:PRO:CD	1.86	1.00
3:D:387:ILE:HD11	3:D:458:PHE:HB2	1.41	1.00
2:A:430:THR:HG22	2:A:432:GLU:OE1	1.60	1.00
7:p:151:ALA:HB1	8:b:88:VAL:O	1.58	1.00
1:a:35:ILE:CB	7:p:92:ILE:CG2	2.22	1.00
1:a:64:ILE:HG22	8:b:57:LYS:CE	1.92	1.00
1:a:184:LEU:HD23	1:a:188:PHE:HD2	1.24	1.00
2:C:26:VAL:CG1	2:C:46:ASP:OD2	2.09	1.00
2:A:237:TYR:CD1	2:A:271:TYR:HB2	1.96	1.00
1:a:39:VAL:HG12	7:p:93:ILE:CD1	1.91	1.00
1:a:161:PHE:CZ	1:a:163:LYS:CG	2.40	1.00
1:a:165:ILE:HG23	1:a:168:THR:O	1.58	1.00
8:b:82:ARG:O	8:b:85:LEU:CG	2.09	1.00
1:a:36:HIS:CD2	7:p:89:THR:CB	2.44	1.00
1:a:104:PHE:HE1	7:p:100:LEU:HD23	1.26	1.00
2:A:12:ILE:HB	7:p:210:LEU:HD13	1.13	1.00
2:A:14:ARG:HG2	7:p:213:ASP:HA	1.03	1.00
6:G:40:ALA:O	6:H:42:GLN:OE1	1.80	1.00
7:p:147:VAL:HG21	8:b:85:LEU:HD13	1.08	1.00
2:C:104:TYR:CE1	2:C:122:ILE:HD13	1.96	1.00
1:a:74:TYR:CB	8:b:53:LEU:HD21	1.91	1.00
2:A:7:ASP:C	7:p:206:GLN:N	2.19	1.00
2:A:9:ILE:CB	7:p:207:ILE:N	2.25	1.00
2:A:120:GLY:HA2	8:b:131:PHE:HD1	1.21	1.00
7:p:196:LYS:O	7:p:199:THR:HG22	1.62	1.00
2:C:4:ILE:CG2	9:d:74:THR:HG21	1.91	0.99
3:F:20:LEU:HD11	3:F:90:GLU:OE2	1.59	0.99
5:g:251:GLU:OE2	5:g:270:MET:CB	2.10	0.99
7:p:123:ILE:HG21	8:b:60:ILE:HG12	1.04	0.99
7:p:133:THR:HG22	8:b:71:ARG:HH21	1.24	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:122:LEU:HD12	1:a:127:LEU:HD11	1.00	0.99
2:C:4:ILE:N	9:d:74:THR:HG23	1.76	0.99
2:A:7:ASP:HB2	7:p:203:LEU:HD13	1.40	0.99
2:A:12:ILE:N	7:p:206:GLN:NE2	2.08	0.99
2:A:20:TYR:OH	9:d:242:GLU:HG2	1.59	0.99
9:d:186:LEU:HD11	9:d:191:LEU:CG	1.92	0.99
1:a:40:LEU:O	7:p:96:GLU:OE2	1.78	0.99
2:A:9:ILE:HG23	7:p:210:LEU:HD23	1.04	0.99
2:A:9:ILE:CB	7:p:207:ILE:CA	2.34	0.99
9:d:224:ARG:HH11	9:d:232:LEU:HD12	1.01	0.99
6:P:40:ALA:O	6:Q:42:GLN:OE1	1.80	0.99
7:p:123:ILE:CD1	8:b:64:ILE:CD1	2.39	0.99
4:e:38:ALA:CB	6:L:41:ARG:HG3	1.91	0.99
1:a:122:LEU:CD1	1:a:127:LEU:CD1	2.37	0.99
2:C:208:GLN:HE22	3:B:144:THR:CG2	1.74	0.99
2:E:214:GLN:HE22	2:E:219:MET:CG	1.65	0.99
5:g:123:VAL:HG11	5:g:308:LEU:HD23	1.02	0.99
7:p:166:THR:CB	8:b:103:ILE:HG12	1.91	0.99
6:T:43:PRO:CB	6:G:48:LYS:NZ	2.26	0.99
2:C:469:LYS:CD	2:C:493:ALA:HB2	1.93	0.99
5:g:148:LEU:O	5:g:152:GLY:N	1.96	0.99
6:O:40:ALA:O	6:P:42:GLN:OE1	1.81	0.99
7:p:139:GLN:HB3	8:b:78:LEU:CD1	1.80	0.98
3:F:431:LEU:HD21	3:F:458:PHE:CZ	1.98	0.98
2:A:17:ILE:HD12	7:p:218:VAL:CG2	1.91	0.98
1:a:51:LEU:HD21	7:p:104:LEU:CA	1.92	0.98
2:A:14:ARG:HG3	7:p:213:ASP:HA	0.99	0.98
2:A:6:ALA:HA	7:p:207:ILE:CG1	1.93	0.98
4:e:21:GLU:HG2	4:e:34:LEU:HD23	1.01	0.98
5:g:103:GLU:HG2	6:R:41:ARG:NE	1.72	0.98
3:F:221:VAL:CG1	3:F:232:VAL:CG2	2.40	0.98
7:p:162:MET:CE	8:b:100:TYR:OH	2.10	0.98
2:C:344:PHE:HD2	2:C:362:ILE:CG2	1.63	0.98
7:p:137:VAL:HG11	8:b:72:GLY:O	1.63	0.98
7:p:184:GLU:OE1	8:b:122:GLU:OE1	1.81	0.98
9:d:115:PHE:HB3	9:d:155:ILE:HD11	1.45	0.98
2:C:344:PHE:CD2	2:C:362:ILE:HG22	1.95	0.98
4:e:21:GLU:OE2	4:e:34:LEU:HD21	1.64	0.98
5:g:281:ILE:HD12	6:M:41:ARG:HG3	1.45	0.98
9:d:186:LEU:HD11	9:d:191:LEU:CD2	1.93	0.98
2:C:355:ARG:CZ	3:B:389:GLN:HE22	1.77	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:221:VAL:HG11	3:F:232:VAL:CG2	1.93	0.98
1:a:39:VAL:HG21	1:a:133:ASP:CG	1.89	0.98
4:e:38:ALA:HB2	6:L:41:ARG:CA	1.94	0.98
3:D:120:ASN:OD1	3:D:120:ASN:O	1.82	0.97
2:A:7:ASP:HA	7:p:206:GLN:N	1.76	0.97
2:A:8:GLU:O	2:A:12:ILE:HG13	1.63	0.97
2:A:11:LYS:N	7:p:206:GLN:NE2	2.10	0.97
2:C:7:ASP:OD2	2:C:70:ASN:HA	1.63	0.97
6:H:40:ALA:O	6:I:42:GLN:OE1	1.81	0.97
6:K:48:LYS:NZ	6:J:43:PRO:CB	2.27	0.97
1:a:79:ILE:HD13	1:a:99:GLY:CA	1.93	0.97
5:g:83:ARG:NH2	5:g:273:THR:CG2	2.27	0.97
7:p:174:LEU:CD2	8:b:114:THR:HG21	1.94	0.97
1:a:118:LYS:HA	8:b:30:ASN:ND2	1.45	0.97
2:C:42:ILE:HD11	2:C:56:PHE:CZ	1.98	0.97
5:g:281:ILE:HB	6:M:41:ARG:HG3	1.45	0.97
6:S:40:ALA:O	6:T:42:GLN:OE1	1.81	0.97
7:p:214:ILE:HD12	8:b:145:PHE:CE1	1.99	0.97
9:d:115:PHE:HB3	9:d:155:ILE:CD1	1.95	0.97
1:a:40:LEU:C	7:p:96:GLU:OE2	2.07	0.97
1:a:103:LEU:HD12	7:p:109:TYR:OH	1.62	0.97
3:D:361:ILE:HG23	3:D:432:SER:HB3	1.44	0.97
2:E:382:LYS:CD	2:E:442:THR:HG21	1.94	0.97
3:F:294:SER:O	2:A:286:ALA:HB3	1.64	0.97
4:e:21:GLU:HG2	4:e:34:LEU:HD21	1.40	0.97
5:g:261:GLU:HG2	5:g:262:GLY:H	1.30	0.97
2:A:14:ARG:CA	7:p:213:ASP:C	2.35	0.97
7:p:156:SER:HA	8:b:95:PHE:CZ	2.00	0.97
1:a:74:TYR:CB	8:b:53:LEU:CD2	2.43	0.97
5:g:118:VAL:CG1	5:g:148:LEU:CD1	2.42	0.97
7:p:151:ALA:HB3	8:b:88:VAL:HG12	1.47	0.97
7:p:166:THR:HG21	8:b:103:ILE:HG12	1.06	0.97
2:E:326:ASP:HB2	5:g:343:ARG:NH2	1.80	0.97
7:p:211:SER:N	8:b:144:VAL:HG11	1.74	0.97
2:A:9:ILE:HG13	8:b:140:VAL:HG13	1.45	0.97
2:A:392:GLU:CD	3:B:429:ARG:HH22	1.71	0.97
5:g:239:ILE:HD12	5:g:303:GLN:HE22	1.28	0.97
7:p:144:ALA:O	8:b:85:LEU:CA	2.13	0.97
1:a:35:ILE:HD12	7:p:92:ILE:HG21	1.42	0.96
2:E:159:PRO:HG2	2:E:368:GLY:O	1.63	0.96
2:A:7:ASP:C	7:p:206:GLN:H	1.72	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:119:LEU:HD11	4:e:123:ARG:CZ	1.91	0.96
7:p:148:MET:CE	8:b:84:ARG:CG	2.38	0.96
1:a:24:GLN:NE2	1:a:195:LEU:HD11	1.77	0.96
2:C:5:ARG:NH1	9:d:154:ARG:NE	2.12	0.96
1:a:66:THR:HA	8:b:57:LYS:HZ2	1.28	0.96
1:a:70:ASN:HB3	8:b:53:LEU:CA	1.95	0.96
2:C:169:ILE:HD11	2:C:322:THR:HG21	1.45	0.96
5:g:281:ILE:HD12	6:M:41:ARG:HG2	1.43	0.96
6:S:48:LYS:HZ3	6:R:43:PRO:CB	1.78	0.96
6:T:40:ALA:HB2	6:G:49:ILE:HD11	1.43	0.96
2:E:172:ARG:HB3	2:E:321:GLU:OE2	1.65	0.96
5:g:137:LEU:HD11	5:g:213:LEU:HD12	1.47	0.96
8:b:76:GLU:O	8:b:80:LYS:CG	2.14	0.96
3:D:297:GLY:HA3	5:g:353:ILE:CD1	1.96	0.96
2:A:18:GLU:CB	7:p:217:LYS:CE	2.16	0.96
2:A:20:TYR:CE1	9:d:242:GLU:HG3	2.01	0.96
7:p:185:LEU:HD23	8:b:125:LYS:CE	1.94	0.96
2:A:9:ILE:HD12	7:p:210:LEU:HD23	1.14	0.96
3:B:163:ARG:HD2	3:B:374:MET:HE3	1.45	0.96
7:p:214:ILE:HG22	9:d:247:GLN:CD	1.89	0.96
6:J:74:LEU:CD2	6:I:10:VAL:CG2	2.44	0.96
5:g:251:GLU:OE2	5:g:270:MET:SD	2.23	0.96
6:P:43:PRO:CB	6:Q:48:LYS:NZ	2.27	0.96
7:p:127:LEU:CD1	8:b:63:THR:C	2.34	0.96
7:p:159:LEU:HD23	8:b:95:PHE:CZ	2.00	0.96
9:d:224:ARG:NH1	9:d:232:LEU:HD13	1.78	0.96
1:a:65:PRO:HB2	1:a:70:ASN:CG	1.90	0.96
2:A:9:ILE:CG2	7:p:210:LEU:CD2	2.35	0.96
2:A:9:ILE:CG2	7:p:210:LEU:CG	2.42	0.96
2:A:17:ILE:HD13	7:p:214:ILE:O	1.64	0.96
2:A:17:ILE:HB	7:p:214:ILE:O	1.60	0.96
2:A:13:ILE:CG1	8:b:144:VAL:HG11	1.87	0.95
5:g:239:ILE:HD12	5:g:303:GLN:HE21	1.19	0.95
7:p:140:LEU:CD1	8:b:75:ILE:HG23	1.94	0.95
9:d:186:LEU:HD11	9:d:191:LEU:HD21	1.47	0.95
3:F:431:LEU:HD23	3:F:458:PHE:CZ	2.01	0.95
2:A:49:MET:SD	2:A:95:ILE:HD11	2.06	0.95
6:Q:43:PRO:HG2	6:R:42:GLN:HE22	1.27	0.95
7:p:166:THR:CG2	8:b:103:ILE:HG13	1.70	0.95
2:A:6:ALA:HA	7:p:207:ILE:HG12	0.96	0.95
7:p:123:ILE:HD12	8:b:64:ILE:CD1	1.96	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:166:THR:HG22	8:b:103:ILE:CG1	1.79	0.95
1:a:116:PRO:HB2	8:b:31:LEU:HD13	0.96	0.95
6:J:42:GLN:OE1	6:I:40:ALA:O	1.85	0.95
6:J:74:LEU:HD22	6:I:10:VAL:CG2	1.96	0.95
1:a:164:TYR:CD2	1:a:166:GLN:HG2	1.98	0.95
2:E:469:LYS:NZ	2:E:492:GLU:HB2	1.81	0.95
3:F:251:LEU:HD23	3:F:309:LEU:HD13	1.48	0.95
2:A:18:GLU:N	7:p:217:LYS:HD3	1.73	0.95
1:a:64:ILE:CG2	8:b:57:LYS:HE2	1.96	0.95
1:a:74:TYR:HB3	8:b:53:LEU:CD2	1.96	0.95
1:a:134:ILE:HG23	1:a:191:PHE:CE1	1.99	0.95
2:A:392:GLU:CD	3:B:429:ARG:NH2	2.24	0.95
6:S:68:LEU:HD12	6:T:66:TYR:HB3	1.45	0.95
7:p:123:ILE:HD12	8:b:64:ILE:HD12	1.48	0.95
7:p:170:VAL:HG11	8:b:107:LYS:O	1.67	0.95
2:E:111:ALA:N	2:E:227:GLU:OE2	2.00	0.95
3:F:251:LEU:CD2	3:F:309:LEU:HD13	1.96	0.95
4:e:119:LEU:HD11	4:e:123:ARG:HE	0.99	0.95
6:Q:40:ALA:O	6:R:42:GLN:OE1	1.85	0.95
1:a:40:LEU:CD2	7:p:96:GLU:CB	2.44	0.95
1:a:70:ASN:HB3	8:b:53:LEU:HB3	0.95	0.95
1:a:122:LEU:HD22	1:a:125:GLY:N	1.80	0.95
2:E:98:ILE:CD1	2:E:245:ALA:HB3	1.96	0.95
1:a:65:PRO:HB3	1:a:70:ASN:ND2	1.82	0.95
1:a:134:ILE:HG22	1:a:191:PHE:CE2	1.88	0.95
3:F:347:ASP:OD1	2:A:202:LYS:NZ	2.00	0.95
2:C:284:ARG:HH11	2:C:330:TYR:HD1	1.13	0.94
2:A:7:ASP:CG	7:p:203:LEU:CA	2.39	0.94
2:A:9:ILE:HD13	7:p:210:LEU:CD2	1.73	0.94
2:A:13:ILE:CB	7:p:213:ASP:CB	2.43	0.94
2:A:13:ILE:HD11	8:b:144:VAL:CB	1.95	0.94
7:p:123:ILE:HA	8:b:64:ILE:HD11	1.34	0.94
2:A:9:ILE:CA	7:p:210:LEU:HD22	1.97	0.94
5:g:281:ILE:CB	6:M:41:ARG:HG3	1.97	0.94
4:e:37:HIS:CE1	6:L:41:ARG:HE	1.85	0.94
1:a:40:LEU:CD2	7:p:96:GLU:HB2	1.97	0.94
1:a:214:ILE:HG13	1:a:215:PRO:HD3	1.47	0.94
2:A:4:ILE:HG22	7:p:203:LEU:HB2	0.95	0.94
2:A:9:ILE:CD1	7:p:210:LEU:HD23	1.73	0.94
5:g:149:LYS:CE	5:g:155:TYR:HE1	1.79	0.94
6:L:42:GLN:HE22	6:K:43:PRO:HG2	1.30	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:115:LEU:C	8:b:34:LEU:HD23	1.92	0.94
2:A:4:ILE:HG23	7:p:203:LEU:N	1.82	0.94
5:g:118:VAL:HG11	5:g:148:LEU:HD11	1.44	0.94
1:a:53:SER:O	1:a:56:ILE:HG22	1.65	0.94
2:C:17:ILE:HA	9:d:148:ILE:HD11	1.49	0.94
2:E:494:ILE:HG22	2:E:498:MET:CE	1.98	0.94
2:A:9:ILE:HG21	8:b:144:VAL:HG22	1.47	0.94
2:A:24:VAL:HG21	8:b:179:MET:SD	2.05	0.94
2:A:165:ARG:HD3	2:A:299:LEU:O	1.67	0.94
7:p:189:LEU:HD11	8:b:125:LYS:HD2	1.47	0.94
8:b:160:LEU:HD12	8:b:164:LEU:H	0.98	0.94
1:a:134:ILE:N	1:a:191:PHE:CE1	2.35	0.94
2:C:344:PHE:CE2	2:C:362:ILE:HG21	2.02	0.94
2:C:355:ARG:CZ	3:B:389:GLN:NE2	2.30	0.94
6:N:43:PRO:CB	6:O:48:LYS:HZ3	1.81	0.94
9:d:199:GLN:HE21	9:d:207:VAL:HG12	1.27	0.94
1:a:35:ILE:CD1	7:p:92:ILE:CG2	2.42	0.94
2:C:279:ARG:NH2	5:g:363:CYS:HB2	1.81	0.94
3:F:294:SER:O	2:A:286:ALA:HB2	1.67	0.94
2:A:13:ILE:HG13	8:b:144:VAL:HG12	0.96	0.94
2:A:17:ILE:HD13	7:p:217:LYS:H	1.07	0.94
7:p:136:GLU:HB3	8:b:75:ILE:HG13	1.48	0.94
3:F:411:ASP:CA	3:F:418:ARG:NH2	2.30	0.94
6:K:49:ILE:HD11	6:J:40:ALA:HB2	1.46	0.94
7:p:156:SER:N	8:b:95:PHE:CE2	2.36	0.94
7:p:159:LEU:HD12	7:p:160:ASN:N	1.82	0.94
7:p:185:LEU:HD21	8:b:125:LYS:CD	1.88	0.94
2:E:98:ILE:CD1	2:E:245:ALA:CB	2.45	0.94
6:K:42:GLN:HE22	6:J:43:PRO:HG2	1.33	0.94
8:b:60:ILE:O	8:b:63:THR:HG22	1.68	0.94
9:d:195:ALA:O	9:d:199:GLN:HG3	1.66	0.94
1:a:134:ILE:HG23	1:a:191:PHE:CE2	1.91	0.93
2:A:9:ILE:CA	7:p:210:LEU:CD2	2.44	0.93
6:M:66:TYR:HB3	6:L:68:LEU:HD13	1.48	0.93
7:p:108:TYR:CE1	7:p:112:LEU:HD12	1.99	0.93
8:b:77:GLN:C	8:b:78:LEU:N	2.25	0.93
4:e:22:ILE:HG13	4:e:33:VAL:CG2	1.98	0.93
8:b:160:LEU:HD13	8:b:163:GLU:HB2	1.49	0.93
1:a:54:ALA:CB	7:p:112:LEU:CD1	2.45	0.93
2:C:5:ARG:HH12	9:d:154:ARG:HE	1.06	0.93
6:N:10:VAL:CG2	6:O:74:LEU:CD2	2.46	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:24:GLN:HB2	7:p:83:LEU:CB	1.96	0.93
8:b:160:LEU:CG	8:b:164:LEU:HB2	1.96	0.93
2:A:8:GLU:N	7:p:203:LEU:CG	2.31	0.93
2:A:9:ILE:HG13	8:b:140:VAL:CG1	1.94	0.93
4:e:22:ILE:CG1	4:e:33:VAL:HG21	1.98	0.93
1:a:50:LEU:HD13	7:p:104:LEU:HD21	1.48	0.93
1:a:137:THR:HG21	1:a:191:PHE:CB	1.97	0.93
2:E:159:PRO:CG	2:E:368:GLY:O	2.16	0.93
2:A:17:ILE:CG1	7:p:214:ILE:O	2.16	0.93
3:B:189:ILE:HG22	3:B:269:LEU:HD11	1.49	0.93
4:e:19:VAL:HG23	4:e:53:LEU:HB2	0.93	0.93
1:a:27:TYR:CD1	8:b:22:PHE:CD1	2.56	0.93
2:C:169:ILE:HG22	2:C:344:PHE:HD1	1.33	0.93
2:A:157:MET:HB3	2:A:384:LYS:HD3	1.51	0.93
7:p:136:GLU:HG3	8:b:75:ILE:HG12	1.51	0.93
7:p:210:LEU:C	8:b:144:VAL:HG11	1.93	0.93
1:a:199:LEU:HD11	6:G:76:PHE:HE2	1.33	0.93
2:E:141:ARG:NH1	2:E:311:GLU:OE2	2.02	0.93
3:B:275:ILE:CG2	3:B:327:VAL:HG22	1.99	0.93
1:a:119:ILE:H	8:b:31:LEU:HD23	0.77	0.93
5:g:137:LEU:CD1	5:g:213:LEU:CD1	2.46	0.93
7:p:193:GLU:O	7:p:196:LYS:HG2	1.69	0.93
1:a:40:LEU:CA	7:p:96:GLU:CD	2.35	0.92
3:D:179:THR:HG21	3:D:215:GLU:OE1	1.68	0.92
2:A:13:ILE:HD13	2:A:16:ARG:CZ	1.98	0.92
6:O:43:PRO:CB	6:P:48:LYS:HZ3	1.82	0.92
7:p:144:ALA:O	8:b:85:LEU:CB	2.17	0.92
8:b:85:LEU:HD12	8:b:86:LYS:N	1.84	0.92
7:p:140:LEU:CD2	8:b:78:LEU:HD23	1.76	0.92
7:p:143:GLN:O	8:b:85:LEU:HD23	1.68	0.92
3:D:50:LYS:CE	3:D:92:ILE:HD12	1.96	0.92
7:p:144:ALA:O	8:b:85:LEU:N	2.01	0.92
1:a:70:ASN:HB2	8:b:53:LEU:CB	1.88	0.92
1:a:79:ILE:HD13	1:a:99:GLY:HA2	1.50	0.92
7:p:140:LEU:CD1	8:b:79:GLU:CG	2.04	0.92
7:p:148:MET:CB	8:b:88:VAL:CB	2.45	0.92
7:p:148:MET:CG	8:b:84:ARG:HG2	2.00	0.92
7:p:185:LEU:HD21	8:b:125:LYS:HE2	0.92	0.92
1:a:24:GLN:CG	7:p:83:LEU:CD2	2.33	0.92
1:a:118:LYS:HA	8:b:30:ASN:HD22	0.80	0.92
1:a:164:TYR:HD2	1:a:166:GLN:HG3	0.76	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:279:ARG:HH12	5:g:361:ASN:HD21	1.04	0.92
5:g:253:GLU:HB3	5:g:270:MET:HB3	1.52	0.92
1:a:200:VAL:HG22	6:H:69:VAL:CG2	1.98	0.92
2:A:54:VAL:HG12	2:A:89:VAL:CG2	2.00	0.92
1:a:39:VAL:HG11	7:p:93:ILE:HG21	1.51	0.92
1:a:114:LEU:HB2	8:b:38:LEU:HB2	1.51	0.92
2:C:279:ARG:NH2	5:g:363:CYS:CB	2.33	0.92
3:D:110:ILE:HG22	3:D:118:VAL:HG22	1.50	0.92
2:A:16:ARG:HH21	8:b:145:PHE:CB	1.82	0.92
2:A:17:ILE:CG2	7:p:214:ILE:O	2.18	0.92
2:A:24:VAL:HG22	8:b:179:MET:SD	2.08	0.92
6:S:48:LYS:NZ	6:R:43:PRO:CB	2.32	0.92
6:O:46:GLU:OE1	6:P:48:LYS:HB3	1.68	0.92
1:a:119:ILE:N	8:b:31:LEU:CD2	2.22	0.92
2:A:5:ARG:HB3	8:b:140:VAL:HG21	1.49	0.92
2:A:7:ASP:C	7:p:203:LEU:HD12	1.72	0.92
2:A:54:VAL:CG1	2:A:89:VAL:HG22	2.00	0.92
8:b:160:LEU:CD1	8:b:164:LEU:CA	1.94	0.92
1:a:50:LEU:HD12	7:p:104:LEU:HD21	1.50	0.92
7:p:123:ILE:HG21	8:b:60:ILE:CG1	1.98	0.92
1:a:122:LEU:CD2	1:a:124:HIS:H	1.81	0.92
2:A:13:ILE:HG22	7:p:214:ILE:H	0.76	0.92
6:O:10:VAL:CG2	6:P:74:LEU:CD2	2.47	0.92
6:J:74:LEU:CD2	6:I:10:VAL:HG23	1.98	0.92
1:a:116:PRO:HA	8:b:31:LEU:CA	1.99	0.91
2:A:13:ILE:N	7:p:213:ASP:OD2	2.00	0.91
2:A:432:GLU:HG3	2:A:476:ILE:HG21	1.49	0.91
6:J:42:GLN:HE22	6:I:43:PRO:HG2	1.31	0.91
2:C:4:ILE:N	9:d:74:THR:CG2	2.32	0.91
2:E:109:ILE:HD11	2:E:113:ALA:HA	1.50	0.91
2:A:13:ILE:HB	7:p:213:ASP:CB	1.99	0.91
2:A:28:ASN:HB2	2:A:91:ALA:HB3	1.50	0.91
1:a:69:GLN:HG2	7:p:119:ARG:NH2	1.85	0.91
1:a:122:LEU:HA	8:b:23:ASN:O	1.70	0.91
2:A:9:ILE:HG22	7:p:210:LEU:CB	1.69	0.91
2:A:16:ARG:NH1	8:b:141:ARG:HB3	1.85	0.91
2:A:18:GLU:N	7:p:217:LYS:HD2	1.82	0.91
3:B:146:LEU:HD22	3:B:374:MET:HE1	1.49	0.91
4:e:34:LEU:HD12	6:K:43:PRO:HG2	0.93	0.91
9:d:222:THR:HG21	9:d:234:ASP:CB	1.98	0.91
1:a:103:LEU:HD12	7:p:109:TYR:HE1	1.15	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:7:ASP:OD2	2:C:70:ASN:CA	2.17	0.91
2:A:13:ILE:HG21	7:p:211:SER:C	1.96	0.91
6:S:43:PRO:HB2	6:T:48:LYS:NZ	1.84	0.91
2:A:13:ILE:HG13	7:p:211:SER:N	1.75	0.91
2:A:17:ILE:CD1	7:p:218:VAL:HG22	1.99	0.91
6:M:74:LEU:CD2	6:L:10:VAL:CG2	2.49	0.91
1:a:134:ILE:HG22	1:a:191:PHE:CD1	2.06	0.91
1:a:208:VAL:HG23	1:a:209:PRO:CD	1.96	0.91
2:E:98:ILE:HD11	2:E:245:ALA:HB1	1.51	0.91
2:A:18:GLU:HB3	7:p:217:LYS:HZ2	1.35	0.91
7:p:185:LEU:HD23	8:b:121:PHE:HE2	1.29	0.91
1:a:115:LEU:N	8:b:34:LEU:CD2	2.33	0.91
2:C:5:ARG:NH1	9:d:154:ARG:HH21	1.68	0.91
2:A:13:ILE:HD12	2:A:16:ARG:NH2	1.85	0.91
5:g:281:ILE:CD1	6:M:41:ARG:CG	2.48	0.91
6:O:43:PRO:HG2	6:P:42:GLN:NE2	1.85	0.91
6:Q:43:PRO:CB	6:R:48:LYS:HZ3	1.83	0.91
2:E:25:LYS:NZ	2:E:46:ASP:OD2	2.04	0.91
6:N:46:GLU:OE1	6:O:48:LYS:HB3	1.70	0.91
7:p:90:LEU:HB2	7:p:91:PRO:HD3	1.52	0.91
7:p:156:SER:N	8:b:95:PHE:HE2	1.69	0.91
7:p:214:ILE:HD12	8:b:145:PHE:CD1	2.01	0.91
2:C:208:GLN:HE22	3:B:144:THR:HG23	1.13	0.91
6:H:46:GLU:OE1	6:I:48:LYS:HB3	1.69	0.91
2:A:9:ILE:CB	7:p:210:LEU:CD2	2.48	0.91
2:A:17:ILE:CA	7:p:217:LYS:HB2	2.00	0.91
6:S:68:LEU:HD12	6:T:66:TYR:CB	1.99	0.91
2:A:8:GLU:CB	7:p:203:LEU:HD21	2.02	0.90
8:b:82:ARG:C	8:b:85:LEU:HG	1.94	0.90
9:d:186:LEU:CD1	9:d:191:LEU:HG	2.00	0.90
1:a:33:PHE:CD1	7:p:88:LEU:CD1	2.53	0.90
1:a:117:TRP:H	8:b:31:LEU:HB3	1.36	0.90
2:C:379:VAL:HG12	2:C:438:ILE:CG2	2.00	0.90
5:g:119:ALA:CB	5:g:207:VAL:HG11	2.01	0.90
2:E:98:ILE:HD11	2:E:245:ALA:CB	2.01	0.90
2:A:3:THR:OG1	7:p:199:THR:N	2.03	0.90
6:T:43:PRO:HB2	6:G:48:LYS:NZ	1.86	0.90
6:T:43:PRO:HG2	6:G:42:GLN:HE22	1.34	0.90
7:p:214:ILE:HG21	9:d:247:GLN:OE1	1.70	0.90
8:b:160:LEU:CD1	8:b:164:LEU:CB	2.50	0.90
5:g:251:GLU:OE2	5:g:270:MET:CG	2.18	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:M:74:LEU:CD2	6:L:10:VAL:HG23	2.02	0.90
2:C:140:ARG:HE	3:D:206:THR:CG2	1.85	0.90
6:N:40:ALA:HB2	6:O:49:ILE:HD11	1.53	0.90
2:A:248:GLU:OE2	2:A:301:ARG:NE	2.03	0.90
5:g:281:ILE:HA	6:N:41:ARG:HH21	1.14	0.90
6:P:43:PRO:HG2	6:Q:42:GLN:HE22	1.35	0.90
2:A:18:GLU:CB	7:p:217:LYS:HD2	1.99	0.90
2:A:20:TYR:CZ	9:d:242:GLU:CG	2.51	0.90
2:A:20:TYR:CE1	9:d:242:GLU:CG	2.55	0.90
7:p:136:GLU:O	8:b:78:LEU:HB2	1.71	0.90
7:p:156:SER:CB	8:b:95:PHE:HE2	1.85	0.90
1:a:116:PRO:CB	8:b:31:LEU:CD1	2.46	0.90
4:e:119:LEU:HD13	4:e:123:ARG:NE	1.84	0.90
6:G:43:PRO:HG2	6:H:42:GLN:NE2	1.86	0.90
7:p:123:ILE:HG23	8:b:64:ILE:HD12	0.91	0.90
1:a:70:ASN:C	8:b:53:LEU:HB3	1.96	0.90
2:E:111:ALA:HB2	2:E:227:GLU:CD	1.96	0.90
6:M:48:LYS:CB	6:L:46:GLU:OE1	2.19	0.90
6:G:10:VAL:CG2	6:H:74:LEU:CD2	2.50	0.90
6:H:43:PRO:HG2	6:I:42:GLN:NE2	1.87	0.90
1:a:36:HIS:CD2	7:p:89:THR:CG2	2.53	0.90
1:a:135:ASN:ND2	7:p:90:LEU:HD23	1.40	0.90
3:D:447:LYS:NZ	3:D:482:GLU:OE2	2.03	0.90
2:A:4:ILE:HG23	7:p:202:SER:C	1.97	0.90
2:A:18:GLU:HG3	7:p:217:LYS:HZ3	1.33	0.90
2:A:104:TYR:CD1	2:A:122:ILE:HD13	2.07	0.90
7:p:140:LEU:CG	8:b:78:LEU:CD2	2.43	0.90
2:E:382:LYS:HD3	2:E:442:THR:HG21	1.51	0.89
6:N:48:LYS:HZ3	6:M:43:PRO:CB	1.85	0.89
7:p:185:LEU:CD2	8:b:121:PHE:CZ	2.27	0.89
3:F:425:ARG:NH1	3:F:429:ARG:HH22	1.71	0.89
5:g:281:ILE:HA	6:N:41:ARG:HH22	1.15	0.89
7:p:123:ILE:CB	8:b:64:ILE:CD1	2.22	0.89
7:p:214:ILE:CG2	8:b:145:PHE:CD1	2.30	0.89
2:E:109:ILE:HD11	2:E:113:ALA:CA	2.01	0.89
2:A:9:ILE:CG2	7:p:207:ILE:CA	2.49	0.89
5:g:251:GLU:HB2	5:g:272:LYS:HG2	1.52	0.89
6:S:40:ALA:HB2	6:T:49:ILE:HD11	1.54	0.89
6:K:48:LYS:NZ	6:J:43:PRO:HB2	1.87	0.89
2:C:4:ILE:HG22	9:d:74:THR:HG21	0.95	0.89
2:C:460:GLU:O	2:C:463:THR:HG22	1.72	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:140:LEU:CG	8:b:78:LEU:HD22	2.02	0.89
1:a:79:ILE:CD1	1:a:99:GLY:HA2	2.02	0.89
6:N:10:VAL:CG2	6:O:74:LEU:HD22	2.01	0.89
7:p:167:GLN:O	7:p:171:GLU:HB2	1.73	0.89
1:a:51:LEU:HD22	7:p:107:ILE:CB	1.99	0.89
1:a:116:PRO:HB3	8:b:31:LEU:O	1.73	0.89
6:N:10:VAL:HG23	6:O:74:LEU:CD2	2.02	0.89
6:G:77:ALA:HB2	7:p:83:LEU:HD12	1.52	0.89
6:H:43:PRO:CB	6:I:48:LYS:HZ3	1.86	0.89
3:B:109:ARG:NH1	3:B:119:ASP:OD1	2.05	0.89
5:g:137:LEU:CD1	5:g:213:LEU:HD13	2.02	0.89
1:a:119:ILE:O	8:b:26:ILE:HA	1.73	0.89
3:D:50:LYS:HE3	3:D:92:ILE:HD11	1.55	0.89
6:J:48:LYS:HZ3	6:I:43:PRO:CB	1.86	0.89
7:p:133:THR:C	8:b:71:ARG:O	2.13	0.88
2:C:27:VAL:HB	2:C:47:GLU:CB	2.03	0.88
4:e:96:LEU:HD11	4:e:123:ARG:CG	2.03	0.88
7:p:136:GLU:O	8:b:78:LEU:CB	2.21	0.88
7:p:140:LEU:HD23	8:b:78:LEU:HD21	1.54	0.88
7:p:148:MET:H	8:b:85:LEU:HA	1.13	0.88
3:D:297:GLY:HA2	5:g:353:ILE:CD1	2.03	0.88
2:A:6:ALA:O	7:p:206:GLN:CA	2.22	0.88
5:g:104:ASP:HA	6:S:41:ARG:NH2	1.88	0.88
7:p:211:SER:N	8:b:144:VAL:HG13	1.88	0.88
7:p:214:ILE:HG21	8:b:145:PHE:HD1	0.73	0.88
3:F:149:PHE:CZ	3:F:189:ILE:HD13	2.08	0.88
2:A:271:TYR:CD2	2:A:294:LEU:HD22	2.08	0.88
5:g:240:CYS:CB	5:g:246:CYS:HG	1.75	0.88
7:p:141:GLU:HA	8:b:81:ALA:N	1.66	0.88
3:B:431:LEU:HD21	3:B:458:PHE:CZ	2.06	0.88
4:e:22:ILE:CG1	4:e:33:VAL:CG2	2.52	0.88
7:p:148:MET:CA	8:b:88:VAL:CG2	2.48	0.88
1:a:36:HIS:N	7:p:89:THR:OG1	2.06	0.88
6:M:74:LEU:HD22	6:L:10:VAL:CG2	2.03	0.88
7:p:199:THR:HA	7:p:202:SER:OG	1.73	0.88
7:p:211:SER:O	8:b:148:ALA:HB2	1.74	0.88
1:a:74:TYR:HB2	8:b:53:LEU:HD23	1.55	0.88
2:A:9:ILE:CD1	8:b:140:VAL:HG11	1.76	0.88
1:a:139:ALA:HB2	7:p:94:MET:SD	2.13	0.88
5:g:324:SER:O	5:g:327:THR:HG22	1.74	0.88
6:Q:10:VAL:CG2	6:R:74:LEU:CD2	2.52	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:219:LEU:HB2	7:p:220:PRO:HD2	1.55	0.88
3:D:292:MET:HG3	5:g:357:VAL:HG11	1.54	0.87
5:g:103:GLU:HG3	6:R:41:ARG:CG	2.04	0.87
6:M:48:LYS:CG	6:L:46:GLU:OE1	2.22	0.87
6:T:46:GLU:OE1	6:G:48:LYS:HB3	1.74	0.87
6:J:48:LYS:NZ	6:I:43:PRO:CB	2.37	0.87
7:p:155:ILE:HG22	8:b:95:PHE:CD2	2.09	0.87
1:a:103:LEU:CD1	7:p:109:TYR:CZ	2.49	0.87
2:A:14:ARG:HH11	7:p:216:LYS:HD2	1.30	0.87
4:e:38:ALA:HB3	6:L:41:ARG:CG	2.01	0.87
1:a:24:GLN:HE22	1:a:195:LEU:CD1	1.85	0.87
1:a:222:PHE:HZ	6:H:55:LEU:CD1	1.86	0.87
1:a:103:LEU:CD1	7:p:109:TYR:HE1	1.78	0.87
1:a:114:LEU:HB3	8:b:38:LEU:CA	2.04	0.87
1:a:161:PHE:CZ	1:a:163:LYS:CB	2.47	0.87
2:E:111:ALA:CA	2:E:227:GLU:OE2	2.22	0.87
6:O:10:VAL:HG23	6:P:74:LEU:CD2	2.05	0.87
7:p:181:ILE:CA	8:b:118:LEU:HD11	1.48	0.87
2:C:5:ARG:HD3	2:C:70:ASN:HD21	1.37	0.87
6:G:46:GLU:OE1	6:H:48:LYS:HB3	1.74	0.87
7:p:123:ILE:O	8:b:64:ILE:CG1	2.20	0.87
7:p:140:LEU:O	8:b:81:ALA:HB3	1.75	0.87
7:p:143:GLN:O	8:b:85:LEU:CD2	2.23	0.87
7:p:214:ILE:CB	8:b:145:PHE:CD1	2.58	0.87
8:b:133:GLN:O	8:b:137:ILE:CD1	2.22	0.87
1:a:214:ILE:CG1	1:a:215:PRO:HD3	2.05	0.87
2:E:29:THR:HA	2:E:89:VAL:O	1.74	0.87
2:E:469:LYS:HD2	2:E:493:ALA:HB2	1.57	0.87
1:a:53:SER:O	1:a:56:ILE:CG2	2.22	0.87
2:C:386:GLU:OE1	2:C:413:ARG:HD3	1.72	0.87
6:N:43:PRO:CB	6:O:48:LYS:NZ	2.36	0.87
6:K:48:LYS:HB3	6:J:46:GLU:OE1	1.75	0.87
3:B:338:ALA:HB3	3:B:339:PRO:HD3	1.57	0.86
1:a:70:ASN:C	8:b:53:LEU:CB	2.48	0.86
1:a:116:PRO:CB	8:b:31:LEU:CB	2.43	0.86
1:a:184:LEU:HD23	1:a:188:PHE:CD2	2.09	0.86
6:M:80:PHE:CE2	6:L:81:VAL:HG21	2.09	0.86
6:H:43:PRO:CB	6:I:48:LYS:NZ	2.38	0.86
1:a:24:GLN:N	7:p:83:LEU:HD23	1.90	0.86
1:a:114:LEU:CA	8:b:34:LEU:O	2.22	0.86
1:a:140:LEU:HD21	7:p:97:PHE:HE2	1.08	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:149:PHE:HZ	3:F:189:ILE:HD13	1.37	0.86
3:F:410:LEU:C	3:F:418:ARG:NH2	2.33	0.86
2:A:9:ILE:CG2	8:b:144:VAL:HG11	2.04	0.86
2:A:13:ILE:CD1	8:b:144:VAL:HB	2.04	0.86
2:A:24:VAL:HG21	8:b:179:MET:CG	2.04	0.86
4:e:22:ILE:CG2	4:e:51:ILE:HG13	2.01	0.86
7:p:174:LEU:HD21	8:b:114:THR:HG21	1.54	0.86
1:a:134:ILE:CG2	1:a:191:PHE:CD2	2.47	0.86
1:a:139:ALA:CB	7:p:94:MET:CG	2.16	0.86
3:D:202:VAL:HG22	3:D:249:VAL:HG23	1.58	0.86
6:O:10:VAL:CG2	6:P:74:LEU:HD22	2.04	0.86
6:G:43:PRO:CB	6:H:48:LYS:HZ3	1.87	0.86
1:a:51:LEU:CD2	7:p:107:ILE:HB	2.00	0.86
6:S:42:GLN:OE1	6:R:40:ALA:O	1.94	0.86
7:p:126:GLN:HB2	8:b:64:ILE:HG23	1.56	0.86
6:S:68:LEU:CD1	6:T:66:TYR:CG	2.58	0.86
6:N:68:LEU:HD13	6:O:66:TYR:HB3	1.58	0.86
7:p:211:SER:HG	8:b:144:VAL:HG13	1.32	0.86
2:A:28:ASN:OD1	2:A:47:GLU:HB3	1.76	0.86
6:N:48:LYS:NZ	6:M:43:PRO:CB	2.39	0.86
6:L:42:GLN:OE1	6:K:40:ALA:O	1.93	0.86
7:p:133:THR:O	8:b:74:ALA:HB3	1.74	0.86
2:A:4:ILE:CG2	7:p:203:LEU:CB	2.46	0.86
2:A:20:TYR:OH	9:d:242:GLU:HG3	1.66	0.86
2:A:237:TYR:CE1	2:A:271:TYR:CD1	2.64	0.86
6:P:43:PRO:HB2	6:Q:48:LYS:NZ	1.90	0.86
7:p:123:ILE:CG1	8:b:64:ILE:HD11	2.06	0.86
9:d:136:SER:OG	9:d:138:LEU:HD21	1.76	0.86
1:a:212:VAL:HB	1:a:213:PRO:HD3	1.56	0.85
3:B:412:GLU:OE2	5:g:319:ARG:NH2	2.09	0.85
7:p:108:TYR:CD1	7:p:112:LEU:HD12	2.00	0.85
1:a:135:ASN:N	7:p:90:LEU:HD22	1.91	0.85
2:C:464:TYR:OH	2:C:496:GLU:OE1	1.94	0.85
2:A:17:ILE:HG21	7:p:214:ILE:O	1.76	0.85
4:e:19:VAL:CA	4:e:53:LEU:HD13	2.06	0.85
8:b:100:TYR:O	8:b:103:ILE:HG22	1.76	0.85
1:a:24:GLN:N	7:p:83:LEU:CD2	2.39	0.85
1:a:47:ILE:HD13	7:p:100:LEU:HD21	1.57	0.85
2:C:355:ARG:HD3	11:C:602:ATP:C2	2.11	0.85
3:B:100:VAL:CG1	3:B:256:MET:HE3	2.06	0.85
7:p:144:ALA:CA	8:b:85:LEU:HD23	2.07	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:144:ALA:HA	8:b:85:LEU:HD23	1.56	0.85
2:E:432:GLU:O	2:E:435:VAL:HG12	1.76	0.85
2:A:12:ILE:HG21	8:b:141:ARG:HG2	1.56	0.85
6:N:74:LEU:CD2	6:M:10:VAL:CG2	2.53	0.85
6:P:40:ALA:HB2	6:Q:49:ILE:HD11	1.57	0.85
9:d:72:ASP:OD1	9:d:77:ARG:NE	2.09	0.85
1:a:50:LEU:CB	7:p:104:LEU:CD1	2.54	0.85
2:A:4:ILE:HA	7:p:202:SER:OG	1.75	0.85
2:A:13:ILE:HG23	7:p:214:ILE:HG23	1.56	0.85
5:g:137:LEU:HD11	5:g:213:LEU:HD13	1.57	0.85
7:p:136:GLU:CB	8:b:75:ILE:HG12	2.06	0.85
7:p:170:VAL:H	8:b:107:LYS:HE3	1.42	0.85
1:a:27:TYR:CD1	8:b:22:PHE:HD1	1.92	0.85
1:a:134:ILE:CA	1:a:191:PHE:CE1	2.59	0.85
6:Q:43:PRO:CB	6:R:48:LYS:NZ	2.38	0.85
2:C:284:ARG:HG2	5:g:353:ILE:HD11	1.59	0.85
2:A:13:ILE:HG13	7:p:211:SER:CA	2.07	0.85
3:B:113:VAL:HG22	3:B:249:VAL:HG13	1.57	0.85
7:p:156:SER:O	7:p:159:LEU:HG	1.77	0.85
2:E:464:TYR:CD1	2:E:468:ASN:ND2	2.45	0.85
7:p:144:ALA:O	7:p:147:VAL:HG12	1.73	0.85
7:p:214:ILE:CB	8:b:145:PHE:HD1	1.89	0.85
5:g:123:VAL:HG13	5:g:308:LEU:HD22	1.56	0.85
7:p:127:LEU:CG	8:b:63:THR:O	2.24	0.85
7:p:185:LEU:HD23	8:b:125:LYS:HE2	1.50	0.85
1:a:47:ILE:HD13	7:p:100:LEU:CG	1.38	0.85
2:C:8:GLU:OE1	9:d:78:TYR:HE1	1.58	0.85
3:B:71:ASN:HD21	9:d:77:ARG:HH21	1.21	0.85
3:B:275:ILE:HG22	3:B:327:VAL:HG22	1.57	0.85
6:N:46:GLU:OE1	6:O:48:LYS:CG	2.25	0.85
1:a:40:LEU:HA	7:p:96:GLU:OE2	1.69	0.84
1:a:104:PHE:HE1	7:p:100:LEU:CD2	1.90	0.84
2:A:12:ILE:CB	7:p:210:LEU:HD11	2.01	0.84
4:e:119:LEU:CD1	4:e:123:ARG:HE	1.73	0.84
6:G:40:ALA:HB2	6:H:49:ILE:HD11	1.58	0.84
2:E:214:GLN:NE2	2:E:219:MET:HB3	1.92	0.84
8:b:87:LYS:O	8:b:90:MET:HB3	1.76	0.84
1:a:47:ILE:HD13	7:p:100:LEU:CD2	1.79	0.84
3:D:50:LYS:HD2	3:D:90:GLU:CD	2.02	0.84
2:E:193:ILE:HG22	2:E:193:ILE:O	1.77	0.84
2:A:9:ILE:CB	7:p:206:GLN:O	2.24	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:g:104:ASP:HA	6:S:41:ARG:HH21	1.41	0.84
6:S:74:LEU:CD2	6:R:10:VAL:CG2	2.55	0.84
7:p:127:LEU:CD1	8:b:63:THR:CB	2.54	0.84
1:a:193:ASN:ND2	1:a:227:GLN:CG	2.40	0.84
3:D:385:TYR:CE1	3:D:389:GLN:NE2	2.46	0.84
2:E:326:ASP:HB2	5:g:343:ARG:CZ	2.06	0.84
8:b:61:LEU:CD1	8:b:65:ARG:CD	2.55	0.84
9:d:198:VAL:HA	9:d:201:ILE:HD11	1.59	0.84
1:a:122:LEU:HD23	1:a:124:HIS:N	1.91	0.84
2:E:420:LEU:HD11	2:E:441:GLY:HA3	1.59	0.84
2:A:77:MET:HE2	2:A:112:LEU:HD21	1.56	0.84
2:A:237:TYR:HD1	2:A:271:TYR:HB2	1.39	0.84
6:H:40:ALA:HB2	6:I:49:ILE:HD11	1.57	0.84
7:p:163:LYS:O	7:p:166:THR:HG22	1.78	0.84
9:d:152:SER:O	9:d:153:GLU:CD	2.20	0.84
1:a:64:ILE:CG2	8:b:57:LYS:HG2	2.07	0.84
5:g:104:ASP:CA	6:S:41:ARG:NH2	2.41	0.84
6:O:40:ALA:HB2	6:P:49:ILE:HD11	1.60	0.84
8:b:121:PHE:CZ	8:b:125:LYS:HE2	2.12	0.84
1:a:39:VAL:CG2	1:a:133:ASP:OD2	2.25	0.84
2:C:279:ARG:HH12	5:g:363:CYS:CB	1.91	0.84
6:Q:46:GLU:OE1	6:R:48:LYS:HB3	1.77	0.84
9:d:76:SER:HA	9:d:164:GLU:HG2	1.59	0.84
3:F:169:GLY:HA3	3:F:346:LEU:HD13	1.59	0.84
3:F:345:HIS:O	2:A:202:LYS:HD3	1.77	0.84
1:a:54:ALA:HA	7:p:112:LEU:CD1	2.08	0.84
1:a:143:LEU:HD11	7:p:98:LEU:CG	2.07	0.84
2:C:369:SER:O	2:C:377:LYS:HE2	1.77	0.84
6:S:48:LYS:NZ	6:R:43:PRO:HB2	1.93	0.84
7:p:137:VAL:HB	8:b:76:GLU:N	1.77	0.84
2:C:344:PHE:HD2	2:C:362:ILE:HG21	0.91	0.83
2:A:104:TYR:CE1	2:A:122:ILE:HD13	2.12	0.83
6:J:66:TYR:HB3	6:I:68:LEU:HD13	1.60	0.83
7:p:170:VAL:HG13	8:b:111:ILE:HG23	1.58	0.83
1:a:36:HIS:CB	7:p:89:THR:OG1	2.25	0.83
6:S:42:GLN:HE22	6:R:43:PRO:HG2	1.42	0.83
2:A:14:ARG:NH2	7:p:212:ASP:OD2	2.11	0.83
1:a:114:LEU:HB2	8:b:38:LEU:HD12	1.59	0.83
1:a:164:TYR:CE2	1:a:166:GLN:HG2	2.13	0.83
2:A:9:ILE:HG13	7:p:207:ILE:HD13	0.87	0.83
5:g:202:PHE:CG	5:g:231:LEU:HD13	2.13	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:b:61:LEU:CD1	8:b:65:ARG:HD2	2.07	0.83
2:C:37:ASP:CG	3:B:291:ARG:HH21	1.86	0.83
2:C:413:ARG:HH12	2:C:444:GLY:N	1.74	0.83
6:S:43:PRO:HG2	6:T:42:GLN:HE22	1.41	0.83
6:N:48:LYS:HB3	6:M:46:GLU:OE1	1.76	0.83
6:O:68:LEU:HD13	6:P:66:TYR:HB3	1.60	0.83
1:a:217:MET:SD	8:b:33:ASN:O	2.37	0.83
5:g:279:SER:OG	5:g:282:LEU:HB2	1.78	0.83
6:K:42:GLN:NE2	6:J:43:PRO:HG2	1.94	0.83
2:E:157:MET:SD	2:E:387:LEU:HD12	2.18	0.83
6:T:43:PRO:HG2	6:G:42:GLN:NE2	1.94	0.83
6:G:10:VAL:CG2	6:H:74:LEU:HD22	2.07	0.83
7:p:174:LEU:HD21	8:b:114:THR:CG2	2.08	0.83
2:E:152:ILE:H	2:E:423:GLN:HE22	1.26	0.83
6:Q:43:PRO:HG2	6:R:42:GLN:NE2	1.93	0.83
6:G:10:VAL:HG23	6:H:74:LEU:CD2	2.08	0.83
6:G:68:LEU:HD13	6:H:66:TYR:HB3	1.59	0.83
1:a:69:GLN:CG	7:p:116:MET:HE1	2.08	0.83
1:a:114:LEU:CD1	8:b:38:LEU:CA	2.27	0.83
1:a:135:ASN:ND2	7:p:90:LEU:CD2	2.24	0.83
2:A:432:GLU:HG3	2:A:476:ILE:HG23	1.61	0.83
4:e:50:ARG:HG2	4:e:59:THR:HG22	1.61	0.83
5:g:292:LEU:HD12	5:g:292:LEU:O	1.79	0.83
6:Q:40:ALA:HB2	6:R:49:ILE:HD11	1.58	0.83
6:J:80:PHE:CE2	6:I:81:VAL:HG21	2.14	0.83
7:p:159:LEU:O	7:p:163:LYS:N	2.11	0.83
9:d:181:THR:O	9:d:221:PHE:CB	2.26	0.83
2:A:3:THR:HB	7:p:196:LYS:HA	1.61	0.83
4:e:110:ARG:NH2	5:g:201:LEU:HD13	1.93	0.83
6:H:10:VAL:CG2	6:I:74:LEU:CD2	2.56	0.83
7:p:123:ILE:CA	8:b:64:ILE:CD1	2.29	0.83
1:a:133:ASP:OD2	7:p:93:ILE:HG21	1.77	0.82
1:a:137:THR:CG2	1:a:191:PHE:HB2	2.08	0.82
2:C:5:ARG:CD	2:C:70:ASN:HD21	1.92	0.82
1:a:66:THR:N	8:b:57:LYS:NZ	2.25	0.82
3:D:293:PRO:CD	5:g:357:VAL:CG2	2.51	0.82
2:A:9:ILE:HG22	7:p:210:LEU:HB3	0.83	0.82
2:A:28:ASN:CG	2:A:47:GLU:HB3	2.04	0.82
8:b:82:ARG:CA	8:b:85:LEU:CD2	2.57	0.82
2:C:286:ALA:N	5:g:356:ILE:HD13	1.94	0.82
3:D:336:ASP:OD1	3:D:337:PRO:HD2	1.79	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:14:ARG:HG2	7:p:213:ASP:CA	1.89	0.82
5:g:251:GLU:CG	5:g:272:LYS:HG2	2.10	0.82
7:p:140:LEU:CD1	8:b:75:ILE:O	2.25	0.82
7:p:207:ILE:HD11	8:b:140:VAL:HG13	1.61	0.82
7:p:211:SER:CA	8:b:144:VAL:HG13	2.07	0.82
1:a:66:THR:HA	8:b:57:LYS:NZ	1.95	0.82
1:a:116:PRO:HB2	8:b:31:LEU:CG	2.10	0.82
2:A:13:ILE:HD12	8:b:145:PHE:N	1.92	0.82
2:A:17:ILE:CG2	7:p:217:LYS:CB	2.52	0.82
1:a:70:ASN:HB3	8:b:53:LEU:C	2.04	0.82
1:a:24:GLN:HG2	7:p:83:LEU:HD22	1.62	0.82
2:C:37:ASP:CG	3:B:291:ARG:NH2	2.36	0.82
6:S:74:LEU:HD22	6:R:10:VAL:CG2	2.08	0.82
7:p:144:ALA:N	8:b:82:ARG:CA	2.27	0.82
1:a:24:GLN:H	7:p:83:LEU:CD2	1.90	0.82
1:a:61:PRO:CB	7:p:115:PHE:CD2	2.28	0.82
1:a:64:ILE:O	8:b:57:LYS:NZ	2.13	0.82
1:a:73:GLU:OE1	7:p:116:MET:HB3	1.79	0.82
2:C:279:ARG:HH12	5:g:363:CYS:HB3	1.45	0.82
2:E:469:LYS:HZ3	2:E:492:GLU:HB2	1.45	0.82
2:A:3:THR:CB	7:p:196:LYS:CA	2.50	0.82
2:A:24:VAL:HG21	8:b:179:MET:HG3	1.61	0.82
6:M:74:LEU:HD21	6:L:10:VAL:HG23	1.61	0.82
7:p:133:THR:O	8:b:71:ARG:O	1.98	0.82
6:P:46:GLU:OE1	6:Q:48:LYS:HB3	1.80	0.82
7:p:127:LEU:CD1	8:b:63:THR:CA	2.57	0.82
3:D:387:ILE:HD11	3:D:458:PHE:CB	2.09	0.82
6:N:81:VAL:HG21	6:O:80:PHE:CE2	2.15	0.82
6:O:46:GLU:OE1	6:P:48:LYS:CG	2.28	0.82
2:A:13:ILE:O	7:p:214:ILE:N	2.12	0.81
2:A:18:GLU:CD	7:p:217:LYS:HZ3	1.83	0.81
7:p:126:GLN:CB	8:b:64:ILE:CG2	2.58	0.81
1:a:63:THR:C	7:p:123:ILE:HD11	1.98	0.81
2:A:54:VAL:HG12	2:A:89:VAL:HG22	1.59	0.81
4:e:38:ALA:CB	6:L:41:ARG:HA	2.03	0.81
6:N:74:LEU:CD2	6:M:10:VAL:HG23	2.11	0.81
6:Q:62:ALA:C	6:Q:65:ILE:HG22	2.05	0.81
3:F:20:LEU:HD21	3:F:92:ILE:HG12	1.62	0.81
6:H:62:ALA:C	6:H:65:ILE:HG22	2.06	0.81
6:J:62:ALA:C	6:J:65:ILE:HG22	2.06	0.81
7:p:123:ILE:HB	8:b:60:ILE:HD11	1.60	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:133:THR:HG21	8:b:71:ARG:NH2	1.68	0.81
8:b:48:VAL:O	8:b:52:LEU:HD13	1.81	0.81
9:d:86:ALA:CB	9:d:95:THR:HG21	2.09	0.81
1:a:65:PRO:CG	1:a:70:ASN:HD21	1.91	0.81
1:a:143:LEU:HD13	7:p:98:LEU:CD2	1.91	0.81
2:A:5:ARG:CB	8:b:140:VAL:HG21	2.11	0.81
2:A:100:VAL:HG23	2:A:246:LEU:HD23	1.62	0.81
6:O:62:ALA:C	6:O:65:ILE:HG22	2.06	0.81
2:A:7:ASP:N	7:p:203:LEU:CD1	2.40	0.81
2:A:237:TYR:OH	2:A:294:LEU:HD13	1.80	0.81
6:L:48:LYS:HB3	6:K:46:GLU:OE1	1.81	0.81
8:b:161:ASN:O	8:b:165:HIS:HB2	1.80	0.81
6:S:64:THR:HG21	6:T:63:LEU:CD2	2.10	0.81
6:S:74:LEU:CD2	6:R:10:VAL:HG23	2.10	0.81
6:M:62:ALA:C	6:M:65:ILE:HG22	2.06	0.81
6:L:62:ALA:C	6:L:65:ILE:HG22	2.06	0.81
1:a:61:PRO:HA	7:p:119:ARG:HH11	1.45	0.81
2:A:3:THR:HG22	7:p:196:LYS:HA	1.60	0.81
2:A:9:ILE:C	7:p:206:GLN:NE2	2.37	0.81
3:B:53:ASP:HB3	3:B:59:MET:CE	2.11	0.81
4:e:38:ALA:N	6:L:41:ARG:O	2.14	0.81
6:T:62:ALA:C	6:T:65:ILE:HG22	2.06	0.81
7:p:167:GLN:O	7:p:171:GLU:CB	2.27	0.81
2:A:13:ILE:HD11	2:A:16:ARG:HH22	1.41	0.81
6:S:62:ALA:C	6:S:65:ILE:HG22	2.06	0.81
6:N:62:ALA:C	6:N:65:ILE:HG22	2.06	0.81
6:K:62:ALA:C	6:K:65:ILE:HG22	2.06	0.81
7:p:166:THR:CG2	8:b:103:ILE:CD1	2.45	0.81
8:b:57:LYS:O	8:b:60:ILE:HG22	1.81	0.81
1:a:27:TYR:HD1	8:b:22:PHE:HD1	1.29	0.81
1:a:39:VAL:HG11	1:a:133:ASP:OD2	1.80	0.81
1:a:66:THR:CA	8:b:57:LYS:HZ2	1.92	0.81
1:a:33:PHE:HD1	7:p:88:LEU:CD1	1.91	0.81
1:a:184:LEU:CD2	1:a:188:PHE:CD2	2.64	0.81
2:C:5:ARG:NE	9:d:154:ARG:NH2	2.27	0.81
5:g:132:GLY:O	5:g:136:MET:HG2	1.80	0.81
6:N:74:LEU:HD22	6:M:10:VAL:CG2	2.10	0.81
7:p:211:SER:CB	8:b:144:VAL:HG13	2.11	0.81
9:d:180:VAL:HG22	9:d:223:ILE:HG22	1.63	0.81
1:a:112:GLY:HA2	1:a:128:ALA:O	1.81	0.80
2:C:104:TYR:HD1	2:C:122:ILE:HD13	1.42	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:3:THR:CG2	7:p:196:LYS:N	2.31	0.80
4:e:34:LEU:HB2	6:L:42:GLN:HE22	1.43	0.80
4:e:46:ILE:HG22	4:e:63:MET:C	2.06	0.80
6:S:10:VAL:CG2	6:T:74:LEU:CD2	2.59	0.80
6:S:43:PRO:HB3	6:T:48:LYS:NZ	1.94	0.80
6:H:46:GLU:OE1	6:I:48:LYS:CG	2.29	0.80
7:p:87:ASN:OD1	7:p:89:THR:HG22	1.79	0.80
7:p:214:ILE:CG2	9:d:247:GLN:CD	2.52	0.80
1:a:122:LEU:HA	8:b:24:THR:CA	2.11	0.80
2:C:37:ASP:OD2	3:B:291:ARG:CZ	2.30	0.80
2:C:286:ALA:H	5:g:356:ILE:CD1	1.94	0.80
3:F:20:LEU:HD13	3:F:90:GLU:CD	2.04	0.80
2:A:9:ILE:CG2	8:b:144:VAL:CB	2.59	0.80
4:e:34:LEU:CB	6:L:42:GLN:NE2	2.39	0.80
6:R:62:ALA:C	6:R:65:ILE:HG22	2.05	0.80
1:a:134:ILE:HD12	7:p:90:LEU:CD2	1.92	0.80
2:C:106:GLY:HA2	2:C:219:MET:HE3	1.63	0.80
6:G:62:ALA:C	6:G:65:ILE:HG22	2.06	0.80
6:I:62:ALA:C	6:I:65:ILE:HG22	2.06	0.80
2:A:9:ILE:CA	7:p:206:GLN:C	2.37	0.80
7:p:136:GLU:CB	8:b:75:ILE:CG1	2.59	0.80
1:a:35:ILE:HB	7:p:92:ILE:HG21	1.25	0.80
2:A:16:ARG:NH2	8:b:141:ARG:O	2.14	0.80
5:g:103:GLU:HG2	6:R:41:ARG:CZ	2.11	0.80
6:N:46:GLU:OE1	6:O:48:LYS:CB	2.29	0.80
6:Q:6:ALA:HB1	6:R:80:PHE:HD2	1.45	0.80
6:L:48:LYS:HZ3	6:K:43:PRO:CB	1.95	0.80
6:J:48:LYS:HB3	6:I:46:GLU:OE1	1.81	0.80
7:p:137:VAL:HG21	8:b:73:LYS:O	1.05	0.80
7:p:144:ALA:HA	8:b:85:LEU:CG	2.12	0.80
1:a:116:PRO:O	8:b:31:LEU:HD22	1.81	0.80
2:A:9:ILE:CG1	8:b:140:VAL:HG11	1.95	0.80
6:P:62:ALA:C	6:P:65:ILE:HG22	2.06	0.80
7:p:93:ILE:HD12	7:p:96:GLU:HB3	1.62	0.80
7:p:148:MET:CA	8:b:85:LEU:HA	2.11	0.80
9:d:222:THR:HG22	9:d:234:ASP:CA	2.09	0.80
2:E:154:ILE:CD1	2:E:358:ILE:HD11	2.11	0.80
2:E:492:GLU:O	2:E:496:GLU:CG	2.30	0.80
6:N:10:VAL:HG23	6:O:74:LEU:HD21	1.63	0.80
6:N:66:TYR:HB3	6:M:68:LEU:HD13	1.64	0.80
7:p:219:LEU:HD12	7:p:220:PRO:O	1.82	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:53:SER:C	1:a:56:ILE:HG22	2.05	0.80
2:E:30:GLY:O	2:E:88:SER:CA	2.28	0.80
3:B:191:LYS:CE	3:B:219:SER:CB	2.52	0.80
6:H:46:GLU:OE1	6:I:48:LYS:CB	2.30	0.80
7:p:126:GLN:HB3	8:b:64:ILE:CG2	2.11	0.80
7:p:212:ASP:C	7:p:215:VAL:HG12	2.07	0.80
2:C:42:ILE:HD11	2:C:56:PHE:CE1	2.16	0.80
2:C:202:LYS:HD3	3:B:345:HIS:O	1.82	0.80
6:L:49:ILE:HD11	6:K:40:ALA:HB2	1.62	0.80
1:a:114:LEU:CB	8:b:38:LEU:CB	2.17	0.80
2:C:302:ALA:HB2	2:C:314:MET:HE2	1.64	0.80
3:B:191:LYS:NZ	3:B:219:SER:HB2	1.97	0.80
7:p:151:ALA:HB2	8:b:89:GLU:HA	0.80	0.80
1:a:40:LEU:HD23	7:p:96:GLU:CB	2.12	0.79
2:A:7:ASP:OD2	7:p:203:LEU:HA	1.80	0.79
2:A:24:VAL:HG23	8:b:179:MET:HE2	0.80	0.79
6:O:46:GLU:OE1	6:P:48:LYS:CB	2.29	0.79
6:G:73:ALA:HA	7:p:84:PHE:CE2	2.16	0.79
1:a:24:GLN:HB2	7:p:83:LEU:CD1	2.13	0.79
1:a:61:PRO:HB3	7:p:115:PHE:CG	2.14	0.79
3:B:478:GLY:N	3:B:482:GLU:OE1	2.15	0.79
7:p:144:ALA:HA	8:b:85:LEU:CD2	2.12	0.79
9:d:177:VAL:HG11	9:d:210:LYS:HD2	1.62	0.79
1:a:24:GLN:HG2	7:p:83:LEU:CD2	2.13	0.79
1:a:36:HIS:ND1	7:p:89:THR:HG21	1.94	0.79
1:a:140:LEU:CD2	7:p:97:PHE:HE2	1.85	0.79
3:F:20:LEU:HD22	3:F:92:ILE:HG12	1.60	0.79
5:g:119:ALA:HB3	5:g:210:VAL:HG22	1.63	0.79
6:O:43:PRO:CB	6:P:48:LYS:NZ	2.44	0.79
6:J:74:LEU:HD21	6:I:10:VAL:HG23	1.63	0.79
2:C:17:ILE:HA	9:d:148:ILE:CD1	2.10	0.79
2:E:382:LYS:HD3	2:E:442:THR:HG22	1.63	0.79
2:A:3:THR:HG21	7:p:195:GLN:C	2.05	0.79
3:B:100:VAL:HG11	3:B:256:MET:HE3	1.63	0.79
5:g:239:ILE:CD1	5:g:303:GLN:HE22	1.86	0.79
6:S:49:ILE:HD11	6:R:40:ALA:HB2	1.62	0.79
9:d:181:THR:O	9:d:221:PHE:HB2	1.81	0.79
1:a:69:GLN:CD	7:p:119:ARG:NH2	2.28	0.79
1:a:222:PHE:CZ	6:H:55:LEU:CD1	2.65	0.79
2:E:401:SER:OG	5:g:221:VAL:CG1	2.30	0.79
2:A:439:TYR:CD2	2:A:490:LEU:HD23	2.17	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:40:LEU:HD22	7:p:96:GLU:HB2	1.56	0.79
1:a:104:PHE:CE1	7:p:100:LEU:CD2	2.61	0.79
2:C:16:ARG:HG2	9:d:148:ILE:CD1	2.13	0.79
2:C:104:TYR:CE1	2:C:122:ILE:CD1	2.66	0.79
7:p:174:LEU:HD12	8:b:110:LEU:C	2.08	0.79
1:a:47:ILE:HG12	7:p:100:LEU:HD22	1.64	0.79
2:E:440:THR:HG22	2:E:494:ILE:HD11	1.65	0.79
6:O:10:VAL:HG23	6:P:74:LEU:HD21	1.65	0.79
2:E:326:ASP:CB	5:g:343:ARG:NH2	2.45	0.79
3:F:245:ALA:O	3:F:249:VAL:HG23	1.82	0.79
2:A:9:ILE:CG2	8:b:144:VAL:CG1	2.61	0.79
2:A:24:VAL:O	8:b:179:MET:HE2	1.80	0.79
5:g:113:ARG:NH1	5:g:205:GLU:CB	2.29	0.79
6:P:10:VAL:CG2	6:Q:74:LEU:CD2	2.60	0.79
6:M:48:LYS:HB3	6:L:46:GLU:CD	2.07	0.79
6:T:10:VAL:CG2	6:G:74:LEU:CD2	2.61	0.79
6:L:42:GLN:NE2	6:K:43:PRO:HG2	1.97	0.79
7:p:144:ALA:N	8:b:85:LEU:HD23	1.96	0.79
2:A:13:ILE:CD1	8:b:145:PHE:N	2.46	0.78
7:p:159:LEU:HD21	8:b:95:PHE:HZ	0.97	0.78
3:F:221:VAL:CG1	3:F:232:VAL:HG23	2.13	0.78
2:A:104:TYR:CE1	2:A:122:ILE:HG21	2.18	0.78
6:S:46:GLU:OE1	6:T:48:LYS:HB3	1.83	0.78
6:K:48:LYS:CG	6:J:46:GLU:OE1	2.31	0.78
7:p:210:LEU:C	8:b:144:VAL:CG1	2.53	0.78
9:d:195:ALA:O	9:d:207:VAL:HG11	1.84	0.78
2:C:82:MET:HE2	2:C:82:MET:CA	2.12	0.78
2:C:355:ARG:NH1	3:B:385:TYR:OH	2.15	0.78
4:e:22:ILE:HG12	4:e:33:VAL:HG21	1.64	0.78
6:T:54:LEU:HD11	6:G:55:LEU:CD2	2.13	0.78
6:G:10:VAL:HG23	6:H:74:LEU:HD21	1.66	0.78
7:p:162:MET:HG3	8:b:100:TYR:CE2	2.18	0.78
1:a:66:THR:CA	8:b:57:LYS:NZ	2.46	0.78
2:C:461:LEU:O	2:C:461:LEU:HD23	1.82	0.78
2:E:494:ILE:CG2	2:E:498:MET:CE	2.57	0.78
2:A:13:ILE:CG2	7:p:213:ASP:HB3	2.13	0.78
2:A:78:GLY:HA2	2:A:232:PRO:HG3	1.63	0.78
9:d:136:SER:OG	9:d:138:LEU:CD2	2.32	0.78
1:a:74:TYR:HB2	8:b:53:LEU:CD2	2.09	0.78
2:A:237:TYR:HE1	2:A:294:LEU:CD2	1.96	0.78
6:G:81:VAL:HG21	6:H:80:PHE:CE2	2.19	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:b:160:LEU:HD13	8:b:164:LEU:H	1.01	0.78
9:d:169:PHE:O	9:d:172:ILE:HG22	1.83	0.78
1:a:69:GLN:CG	7:p:119:ARG:NH2	2.42	0.78
1:a:79:ILE:HD13	1:a:99:GLY:HA3	1.64	0.78
3:D:385:TYR:HE1	3:D:389:GLN:NE2	1.80	0.78
2:E:214:GLN:HE21	2:E:219:MET:HG2	0.98	0.78
4:e:34:LEU:CD1	6:K:43:PRO:HB2	2.14	0.78
5:g:240:CYS:HB3	5:g:246:CYS:CB	2.13	0.78
5:g:240:CYS:HB2	5:g:246:CYS:SG	2.20	0.78
6:T:43:PRO:C	6:G:48:LYS:HZ3	1.91	0.78
6:T:46:GLU:OE1	6:G:48:LYS:CG	2.31	0.78
2:E:401:SER:OG	5:g:221:VAL:HG11	1.83	0.78
3:F:311:GLU:HG3	2:A:230:ASP:HB3	1.64	0.78
2:A:18:GLU:N	7:p:217:LYS:CB	2.47	0.78
6:S:48:LYS:HB3	6:R:46:GLU:OE1	1.84	0.78
7:p:123:ILE:HA	8:b:64:ILE:HD13	1.66	0.78
3:F:336:ASP:HB3	3:F:339:PRO:HD2	1.64	0.78
5:g:111:LYS:HE3	5:g:113:ARG:CG	2.14	0.78
5:g:251:GLU:CB	5:g:272:LYS:HG2	2.12	0.78
7:p:139:GLN:HB3	8:b:78:LEU:HD11	1.65	0.78
7:p:148:MET:HB3	8:b:88:VAL:CB	2.06	0.78
9:d:179:VAL:HG22	9:d:210:LYS:CB	2.10	0.78
9:d:186:LEU:HD11	9:d:191:LEU:HG	1.61	0.78
9:d:235:MET:CE	9:d:239:LYS:HG2	2.13	0.78
2:E:326:ASP:CG	5:g:343:ARG:CZ	2.57	0.77
2:A:382:LYS:HG2	3:B:442:THR:O	1.84	0.77
6:L:48:LYS:NZ	6:K:43:PRO:CB	2.47	0.77
7:p:218:VAL:HB	9:d:243:GLU:OE1	1.84	0.77
1:a:36:HIS:CD2	7:p:89:THR:HB	2.18	0.77
1:a:118:LYS:NZ	1:a:126:GLU:HB2	2.00	0.77
1:a:165:ILE:HG22	1:a:165:ILE:O	1.84	0.77
2:C:379:VAL:CG1	2:C:438:ILE:HG22	2.14	0.77
2:A:9:ILE:CB	7:p:210:LEU:HD23	2.12	0.77
3:F:221:VAL:CG1	3:F:232:VAL:HG21	2.03	0.77
3:F:402:GLN:HA	3:F:405:ILE:HG12	1.66	0.77
2:A:18:GLU:HA	7:p:217:LYS:HD3	0.78	0.77
2:A:70:ASN:HA	9:d:71:VAL:CG1	2.08	0.77
5:g:91:GLU:HG3	5:g:276:PRO:HD2	1.64	0.77
6:O:81:VAL:HG21	6:P:80:PHE:CE2	2.19	0.77
7:p:174:LEU:CD1	8:b:114:THR:OG1	2.31	0.77
7:p:211:SER:HA	8:b:144:VAL:CG1	1.94	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:P:68:LEU:HD13	6:Q:66:TYR:HB3	1.65	0.77
7:p:131:LYS:H	8:b:67:SER:CB	1.97	0.77
1:a:122:LEU:CD2	1:a:125:GLY:H	1.95	0.77
1:a:134:ILE:CD1	7:p:90:LEU:HD21	2.12	0.77
6:G:43:PRO:CB	6:H:48:LYS:NZ	2.46	0.77
1:a:104:PHE:CD1	7:p:100:LEU:HD23	2.19	0.77
1:a:114:LEU:CG	8:b:38:LEU:N	2.47	0.77
2:C:9:ILE:HG21	2:C:12:ILE:HD12	1.67	0.77
2:E:109:ILE:CD1	2:E:113:ALA:HA	2.13	0.77
6:T:46:GLU:OE1	6:G:48:LYS:CB	2.33	0.77
6:H:68:LEU:HD13	6:I:66:TYR:HB3	1.67	0.77
6:J:49:ILE:HD11	6:I:40:ALA:HB2	1.65	0.77
1:a:50:LEU:HB2	7:p:104:LEU:CD1	2.15	0.77
5:g:229:THR:HG23	5:g:229:THR:O	1.82	0.77
6:T:43:PRO:HB3	6:G:48:LYS:HD2	1.65	0.77
1:a:64:ILE:HD12	8:b:61:LEU:CB	2.14	0.77
1:a:171:LEU:O	1:a:171:LEU:HD23	1.84	0.77
2:C:140:ARG:HE	3:D:206:THR:HG22	1.50	0.77
3:D:383:GLU:OE2	3:D:459:GLN:NE2	2.16	0.77
6:O:6:ALA:HB1	6:P:80:PHE:HD2	1.50	0.77
6:P:43:PRO:HB3	6:Q:48:LYS:NZ	1.98	0.77
7:p:185:LEU:HG	8:b:125:LYS:CE	1.97	0.77
2:A:308:LEU:HD23	2:A:309:LEU:HD12	1.66	0.77
6:S:10:VAL:HG23	6:T:74:LEU:CD2	2.15	0.77
6:N:49:ILE:HD11	6:M:40:ALA:HB2	1.65	0.77
2:C:8:GLU:O	9:d:77:ARG:HG2	1.85	0.77
4:e:34:LEU:CD1	6:K:43:PRO:CG	2.57	0.77
4:e:36:ASN:O	6:L:43:PRO:HD2	1.85	0.77
5:g:117:LYS:HE3	5:g:154:ASP:OD2	1.85	0.77
6:S:10:VAL:CG2	6:T:74:LEU:HD22	2.14	0.77
6:K:48:LYS:CB	6:J:46:GLU:OE1	2.33	0.77
7:p:148:MET:HE1	8:b:84:ARG:HG3	1.67	0.77
1:a:47:ILE:HG12	7:p:100:LEU:CD2	2.05	0.76
2:A:18:GLU:HB2	7:p:217:LYS:HD2	1.59	0.76
1:a:64:ILE:HG22	8:b:57:LYS:HG2	1.66	0.76
2:C:49:MET:HE3	2:C:95:ILE:HG23	1.67	0.76
2:E:382:LYS:HB3	2:E:442:THR:HG21	1.67	0.76
3:F:296:VAL:HG12	3:F:297:GLY:H	1.50	0.76
2:A:138:MET:CG	3:B:119:ASP:HA	2.15	0.76
9:d:198:VAL:HA	9:d:201:ILE:CD1	2.15	0.76
2:A:9:ILE:HG22	8:b:144:VAL:CG1	2.14	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:P:43:PRO:HG2	6:Q:42:GLN:NE2	2.00	0.76
1:a:134:ILE:O	1:a:137:THR:N	2.18	0.76
3:D:22:ARG:NH1	3:D:90:GLU:HB3	2.00	0.76
3:F:212:LEU:HD12	3:F:212:LEU:O	1.84	0.76
2:A:308:LEU:CD2	2:A:309:LEU:HD12	2.15	0.76
2:A:430:THR:CG2	2:A:432:GLU:OE1	2.33	0.76
1:a:35:ILE:HA	7:p:89:THR:HA	1.66	0.76
2:E:154:ILE:HD12	2:E:358:ILE:CD1	2.14	0.76
6:K:55:LEU:CD2	6:J:54:LEU:HD11	2.16	0.76
1:a:116:PRO:HB2	8:b:31:LEU:HB2	1.67	0.76
2:E:344:PHE:CD2	2:E:362:ILE:CG2	2.66	0.76
3:F:311:GLU:CG	2:A:230:ASP:HB3	2.15	0.76
2:A:7:ASP:N	7:p:203:LEU:HD12	2.00	0.76
5:g:281:ILE:CA	6:N:41:ARG:HH21	1.90	0.76
6:N:43:PRO:HB2	6:O:48:LYS:NZ	2.00	0.76
2:C:469:LYS:HE3	2:C:493:ALA:N	2.01	0.76
3:B:401:LEU:HD22	3:B:404:ILE:CD1	2.13	0.76
6:H:10:VAL:HG23	6:I:74:LEU:CD2	2.16	0.76
3:D:148:ILE:HD13	3:D:451:LEU:HD11	1.68	0.76
2:A:120:GLY:HA2	8:b:131:PHE:CD1	2.14	0.76
2:A:120:GLY:CA	8:b:131:PHE:HD1	1.98	0.76
6:P:10:VAL:HG23	6:Q:74:LEU:CD2	2.16	0.76
6:J:42:GLN:NE2	6:I:43:PRO:HG2	2.00	0.76
2:E:109:ILE:HD11	2:E:113:ALA:CB	2.16	0.76
2:E:153:ALA:HB3	2:E:358:ILE:HD12	1.68	0.76
5:g:124:THR:HG22	5:g:137:LEU:HD23	0.88	0.76
6:H:43:PRO:HB2	6:I:48:LYS:NZ	2.00	0.76
7:p:174:LEU:HD21	8:b:114:THR:OG1	1.86	0.76
3:F:20:LEU:HD13	3:F:90:GLU:CG	2.16	0.76
2:A:17:ILE:HG21	7:p:217:LYS:H	1.51	0.76
3:B:143:ASP:OD2	3:B:315:SER:HB2	1.86	0.76
7:p:193:GLU:HA	7:p:196:LYS:HE2	1.68	0.76
2:E:326:ASP:CB	5:g:343:ARG:CZ	2.63	0.75
2:A:4:ILE:CG2	7:p:203:LEU:N	2.49	0.75
3:B:455:ILE:O	3:B:459:GLN:HG3	1.86	0.75
4:e:34:LEU:HD12	6:K:43:PRO:CB	2.16	0.75
6:H:10:VAL:CG2	6:I:74:LEU:HD22	2.16	0.75
7:p:158:ALA:HB3	8:b:96:ARG:HG3	1.69	0.75
7:p:170:VAL:CG1	8:b:111:ILE:HG23	2.16	0.75
3:D:113:VAL:HG22	3:D:249:VAL:CG1	2.15	0.75
7:p:144:ALA:C	8:b:85:LEU:HB3	2.10	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:216:MET:HE2	3:F:232:VAL:HG11	1.66	0.75
3:B:408:LEU:CD1	5:g:64:MET:SD	2.73	0.75
6:Q:43:PRO:HB2	6:R:48:LYS:NZ	2.01	0.75
1:a:63:THR:O	7:p:123:ILE:CG1	2.34	0.75
1:a:134:ILE:N	1:a:191:PHE:HE1	1.85	0.75
1:a:140:LEU:HD21	7:p:97:PHE:CD2	2.18	0.75
2:C:214:GLN:HG3	2:C:219:MET:HG3	1.68	0.75
2:E:98:ILE:HD13	2:E:245:ALA:CB	2.09	0.75
2:E:445:TYR:CD2	2:E:494:ILE:HG21	2.21	0.75
3:F:221:VAL:O	3:F:230:SER:O	2.03	0.75
2:A:383:LEU:HD12	2:A:383:LEU:O	1.85	0.75
6:S:64:THR:HG21	6:T:63:LEU:HD22	1.67	0.75
7:p:189:LEU:CD1	8:b:125:LYS:HD2	2.17	0.75
2:C:173:GLN:HG3	3:B:371:THR:HG21	1.69	0.75
2:C:390:PHE:CE2	2:C:418:ARG:HD2	2.22	0.75
3:D:293:PRO:HD2	5:g:357:VAL:CG2	2.08	0.75
6:K:74:LEU:CD2	6:J:10:VAL:CG2	2.64	0.75
7:p:207:ILE:CD1	8:b:140:VAL:CG1	2.62	0.75
7:p:214:ILE:HG13	7:p:215:VAL:N	2.01	0.75
1:a:24:GLN:CA	7:p:83:LEU:CD2	2.57	0.75
1:a:134:ILE:HD11	7:p:90:LEU:HD13	1.68	0.75
1:a:134:ILE:CA	1:a:191:PHE:CD1	2.67	0.75
3:F:110:ILE:HD11	3:F:213:TYR:CD1	2.22	0.75
3:F:361:ILE:HG23	3:F:432:SER:HB3	1.69	0.75
2:A:9:ILE:CG1	7:p:210:LEU:CD2	2.64	0.75
2:A:12:ILE:H	7:p:206:GLN:HE21	1.35	0.75
2:C:56:PHE:CD1	2:C:89:VAL:HB	2.21	0.75
2:C:279:ARG:NH1	5:g:363:CYS:HB3	2.01	0.75
2:E:98:ILE:CD1	2:E:245:ALA:HB1	2.14	0.75
3:B:64:GLU:OE1	3:B:248:ARG:NE	2.19	0.75
6:S:48:LYS:NZ	6:R:43:PRO:HB3	2.01	0.75
2:C:379:VAL:CG1	2:C:438:ILE:CG2	2.65	0.75
3:B:336:ASP:OD1	3:B:337:PRO:HD2	1.87	0.75
6:Q:10:VAL:CG2	6:R:74:LEU:HD22	2.16	0.75
2:C:8:GLU:OE1	9:d:78:TYR:CE1	2.40	0.75
2:C:17:ILE:CA	9:d:148:ILE:HD11	2.17	0.75
3:F:216:MET:HB3	3:F:222:ILE:HG12	1.68	0.75
2:A:14:ARG:NH2	7:p:212:ASP:CG	2.45	0.75
6:K:48:LYS:NZ	6:J:43:PRO:HB3	2.01	0.75
6:K:48:LYS:HD2	6:J:43:PRO:HB3	1.67	0.75
7:p:134:SER:HA	8:b:74:ALA:H	1.52	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:169:GLU:OE1	8:b:107:LYS:NZ	2.20	0.75
5:g:103:GLU:HG3	6:R:41:ARG:CD	2.16	0.74
6:Q:10:VAL:HG23	6:R:74:LEU:CD2	2.17	0.74
6:G:46:GLU:OE1	6:H:48:LYS:CG	2.35	0.74
7:p:214:ILE:HD11	8:b:148:ALA:HB3	1.69	0.74
2:C:98:ILE:HD13	2:C:242:THR:HG23	1.69	0.74
2:A:54:VAL:CG1	2:A:89:VAL:CG2	2.63	0.74
2:A:164:GLN:HG2	2:A:165:ARG:N	2.01	0.74
3:B:191:LYS:HE3	3:B:219:SER:HB2	1.64	0.74
6:S:54:LEU:HD11	6:T:55:LEU:CD2	2.17	0.74
6:N:54:LEU:HD11	6:O:55:LEU:CD2	2.17	0.74
6:O:43:PRO:CG	6:P:42:GLN:HE22	1.98	0.74
7:p:214:ILE:HG22	9:d:247:GLN:NE2	2.02	0.74
9:d:235:MET:HE3	9:d:239:LYS:HG2	1.68	0.74
1:a:69:GLN:CD	7:p:119:ARG:HH22	1.88	0.74
2:A:157:MET:SD	2:A:387:LEU:HD12	2.27	0.74
6:P:10:VAL:CG2	6:Q:74:LEU:HD22	2.16	0.74
6:J:48:LYS:NZ	6:I:43:PRO:HB3	2.02	0.74
7:p:174:LEU:HD11	8:b:114:THR:CB	2.17	0.74
1:a:207:LEU:HD11	6:H:76:PHE:CB	2.17	0.74
3:D:183:MET:HE1	3:D:215:GLU:HB3	1.68	0.74
2:E:494:ILE:O	2:E:498:MET:HG3	1.88	0.74
2:A:3:THR:CG2	7:p:195:GLN:C	2.59	0.74
7:p:155:ILE:HA	8:b:96:ARG:HB2	1.69	0.74
7:p:214:ILE:CG2	9:d:247:GLN:HE22	2.00	0.74
1:a:66:THR:N	8:b:57:LYS:HZ1	1.84	0.74
1:a:134:ILE:HD11	7:p:90:LEU:CG	2.17	0.74
2:C:4:ILE:CG2	9:d:74:THR:CG2	2.58	0.74
2:E:214:GLN:HE22	2:E:219:MET:CB	1.90	0.74
2:A:4:ILE:HG22	7:p:203:LEU:HB3	1.68	0.74
2:A:13:ILE:HG13	7:p:211:SER:HA	1.68	0.74
2:A:169:ILE:HG13	2:A:320:VAL:O	1.87	0.74
5:g:111:LYS:HE3	5:g:113:ARG:HG3	1.68	0.74
6:H:6:ALA:HB1	6:I:80:PHE:HD2	1.52	0.74
7:p:140:LEU:CG	8:b:79:GLU:HG3	2.14	0.74
8:b:82:ARG:CA	8:b:85:LEU:HD23	2.12	0.74
2:E:16:ARG:NH2	9:d:127:SER:OG	2.21	0.74
2:E:494:ILE:HG23	2:E:498:MET:HE2	1.67	0.74
6:P:81:VAL:HG21	6:Q:80:PHE:CE2	2.23	0.74
7:p:214:ILE:CG2	9:d:247:GLN:NE2	2.51	0.74
5:g:91:GLU:CG	5:g:276:PRO:HD2	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:K:48:LYS:HZ3	6:J:43:PRO:C	1.95	0.74
7:p:148:MET:HA	8:b:88:VAL:HB	0.75	0.74
1:a:163:LYS:HE2	1:a:179:ASP:CG	2.12	0.74
2:C:137:ILE:HD13	3:D:110:ILE:HD13	1.70	0.74
3:F:425:ARG:HH12	3:F:429:ARG:HH22	1.32	0.74
6:S:55:LEU:CD2	6:R:54:LEU:HD11	2.18	0.74
6:K:66:TYR:HB3	6:J:68:LEU:HD13	1.70	0.74
1:a:63:THR:O	7:p:123:ILE:HG13	1.87	0.74
1:a:135:ASN:CA	7:p:90:LEU:HD22	2.18	0.74
1:a:184:LEU:HD21	1:a:188:PHE:CE2	2.21	0.74
3:D:110:ILE:CG2	3:D:118:VAL:CG2	2.65	0.74
4:e:34:LEU:HB2	6:L:42:GLN:HE21	1.47	0.74
7:p:185:LEU:HD23	8:b:125:LYS:HE3	1.64	0.74
1:a:165:ILE:HG22	1:a:168:THR:C	2.14	0.73
2:E:9:ILE:O	2:E:14:ARG:NH1	2.21	0.73
2:A:14:ARG:NH1	7:p:216:LYS:CE	2.45	0.73
2:A:17:ILE:HD13	7:p:215:VAL:C	2.13	0.73
7:p:170:VAL:HG11	8:b:107:LYS:C	2.13	0.73
2:A:13:ILE:HD13	2:A:16:ARG:HH22	0.62	0.73
5:g:118:VAL:HG11	5:g:148:LEU:HD13	1.70	0.73
6:M:49:ILE:HD11	6:L:40:ALA:HB2	1.70	0.73
7:p:137:VAL:N	8:b:75:ILE:HA	1.83	0.73
7:p:214:ILE:CD1	8:b:145:PHE:CE1	2.60	0.73
7:p:219:LEU:CD1	7:p:220:PRO:O	2.36	0.73
2:E:185:LEU:HD13	2:E:216:ARG:HD2	1.70	0.73
2:A:7:ASP:CB	7:p:203:LEU:CA	2.66	0.73
2:A:9:ILE:CG1	7:p:210:LEU:HD23	2.18	0.73
6:G:6:ALA:HB1	6:H:80:PHE:HD2	1.53	0.73
7:p:139:GLN:HB2	8:b:78:LEU:HD13	1.63	0.73
1:a:36:HIS:CG	7:p:89:THR:CB	2.68	0.73
2:C:104:TYR:HE1	2:C:122:ILE:CD1	2.00	0.73
2:A:5:ARG:HE	8:b:140:VAL:CG2	2.01	0.73
3:B:20:LEU:HD21	3:B:92:ILE:HG22	1.70	0.73
6:N:6:ALA:HB1	6:O:80:PHE:HD2	1.53	0.73
6:N:80:PHE:CE2	6:M:81:VAL:HG21	2.22	0.73
6:Q:46:GLU:OE1	6:R:48:LYS:CG	2.36	0.73
6:T:10:VAL:CG2	6:G:74:LEU:HD22	2.18	0.73
6:H:43:PRO:C	6:I:48:LYS:HZ3	1.96	0.73
2:A:14:ARG:HG3	7:p:213:ASP:CB	2.18	0.73
6:N:48:LYS:NZ	6:M:43:PRO:HB2	2.02	0.73
6:P:46:GLU:OE1	6:Q:48:LYS:CG	2.36	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:48:LYS:NZ	6:I:43:PRO:HB2	2.02	0.73
1:a:64:ILE:CD1	8:b:61:LEU:HB2	2.18	0.73
2:C:286:ALA:N	5:g:356:ILE:CD1	2.51	0.73
6:T:43:PRO:HB3	6:G:48:LYS:NZ	2.01	0.73
7:p:148:MET:HG2	8:b:88:VAL:HG23	1.68	0.73
7:p:207:ILE:O	8:b:144:VAL:HG13	1.89	0.73
8:b:145:PHE:CD2	8:b:149:LEU:HD11	2.22	0.73
1:a:39:VAL:HG11	7:p:93:ILE:CG2	2.19	0.73
2:C:9:ILE:HG22	2:C:12:ILE:CD1	2.09	0.73
2:C:49:MET:HE3	2:C:95:ILE:CG2	2.18	0.73
3:D:101:PRO:CB	3:D:126:THR:HG21	2.18	0.73
3:D:293:PRO:CG	5:g:353:ILE:CG2	2.66	0.73
7:p:127:LEU:HD13	8:b:63:THR:CB	2.15	0.73
2:E:416:ARG:NH2	2:E:447:ASP:O	2.21	0.73
2:E:419:GLU:OE2	2:E:422:LYS:HD2	1.88	0.73
2:A:432:GLU:CG	2:A:476:ILE:CG2	2.65	0.73
3:B:20:LEU:HD22	3:B:92:ILE:HG22	1.70	0.73
6:T:10:VAL:HG23	6:G:74:LEU:CD2	2.19	0.73
6:T:68:LEU:HD13	6:G:66:TYR:HB3	1.71	0.73
2:A:4:ILE:HG23	7:p:202:SER:CB	2.17	0.73
6:N:74:LEU:HD21	6:M:10:VAL:HG23	1.70	0.73
6:G:43:PRO:CG	6:H:42:GLN:HE22	1.98	0.73
6:H:43:PRO:CG	6:I:42:GLN:HE22	2.02	0.73
2:E:279:ARG:HH11	5:g:361:ASN:HD21	0.75	0.73
2:A:70:ASN:OD1	9:d:71:VAL:HB	1.88	0.73
9:d:198:VAL:O	9:d:202:THR:OG1	2.04	0.73
2:C:439:TYR:OH	2:C:487:GLU:OE2	2.06	0.72
2:E:416:ARG:CZ	2:E:447:ASP:O	2.37	0.72
2:A:237:TYR:CE1	2:A:271:TYR:CG	2.76	0.72
5:g:300:LEU:HD23	5:g:300:LEU:C	2.14	0.72
7:p:150:ALA:O	7:p:154:GLU:HG3	1.89	0.72
8:b:61:LEU:HD13	8:b:61:LEU:C	2.14	0.72
8:b:82:ARG:CB	8:b:85:LEU:HD21	2.19	0.72
6:M:55:LEU:CD2	6:L:54:LEU:HD11	2.19	0.72
1:a:119:ILE:O	8:b:26:ILE:CG1	2.34	0.72
1:a:134:ILE:HA	1:a:191:PHE:CE1	2.22	0.72
1:a:135:ASN:H	7:p:90:LEU:CD2	2.01	0.72
2:C:282:PRO:CG	5:g:356:ILE:HG22	2.19	0.72
4:e:22:ILE:HG13	4:e:33:VAL:HG22	1.69	0.72
6:N:48:LYS:CG	6:M:46:GLU:OE1	2.36	0.72
6:H:54:LEU:HD11	6:I:55:LEU:CD2	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:174:LEU:HD12	8:b:111:ILE:HA	1.71	0.72
3:B:149:PHE:HE2	3:B:189:ILE:CD1	2.01	0.72
6:S:62:ALA:O	6:S:65:ILE:CG2	2.33	0.72
1:a:40:LEU:HD23	7:p:96:GLU:HB3	1.71	0.72
2:C:286:ALA:H	5:g:356:ILE:HD13	1.53	0.72
2:C:489:LEU:HD23	2:C:489:LEU:O	1.88	0.72
3:D:297:GLY:HA2	5:g:353:ILE:HD13	1.70	0.72
2:A:13:ILE:C	7:p:214:ILE:N	2.47	0.72
6:S:43:PRO:HG2	6:T:42:GLN:NE2	2.05	0.72
7:p:155:ILE:CB	8:b:96:ARG:HB2	2.19	0.72
2:A:14:ARG:O	7:p:217:LYS:HD2	1.89	0.72
5:g:222:LYS:HE2	5:g:224:ASP:OD2	1.89	0.72
6:T:43:PRO:HB2	6:G:48:LYS:HZ2	1.53	0.72
1:a:40:LEU:HD23	7:p:93:ILE:HD12	1.69	0.72
1:a:86:GLN:NE2	1:a:86:GLN:HA	2.05	0.72
3:D:405:ILE:HG12	3:D:413:LEU:HD11	1.71	0.72
6:G:46:GLU:OE1	6:H:48:LYS:CB	2.37	0.72
7:p:129:GLY:O	8:b:71:ARG:NE	2.22	0.72
7:p:211:SER:OG	8:b:144:VAL:CG1	2.34	0.72
2:C:5:ARG:NH1	9:d:154:ARG:NH2	2.31	0.72
2:A:8:GLU:CA	7:p:203:LEU:HD11	2.19	0.72
4:e:22:ILE:HD11	4:e:74:ILE:HD13	1.71	0.72
1:a:122:LEU:CA	8:b:23:ASN:O	2.38	0.72
3:D:197:SER:HG	3:D:271:PHE:HE1	1.38	0.72
2:E:111:ALA:HB3	2:E:235:LEU:HD22	1.72	0.72
2:A:12:ILE:HB	7:p:210:LEU:HD11	1.61	0.72
2:A:12:ILE:O	7:p:213:ASP:OD2	2.07	0.72
4:e:34:LEU:HD11	6:K:43:PRO:HB2	1.72	0.72
4:e:60:LEU:O	4:e:60:LEU:CD1	2.36	0.72
6:O:62:ALA:O	6:O:65:ILE:CG2	2.33	0.72
9:d:114:PHE:CD1	9:d:120:ILE:HD13	2.24	0.72
2:C:492:GLU:O	2:C:495:GLN:HG2	1.90	0.72
2:A:13:ILE:CG2	7:p:214:ILE:HG12	2.20	0.72
2:A:469:LYS:NZ	2:A:492:GLU:HB2	2.05	0.72
3:B:411:ASP:HA	3:B:418:ARG:NH2	1.97	0.72
5:g:261:GLU:HG2	5:g:262:GLY:N	2.02	0.72
6:S:43:PRO:HB3	6:T:48:LYS:HD2	1.71	0.72
6:N:43:PRO:C	6:O:48:LYS:HZ3	1.97	0.72
6:P:54:LEU:HD11	6:Q:55:LEU:CD2	2.19	0.72
6:M:80:PHE:HD2	6:L:6:ALA:HB1	1.53	0.72
2:E:134:ALA:HB3	3:F:240:ASN:HD22	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:16:ARG:HB2	7:p:214:ILE:HG22	1.71	0.71
2:A:17:ILE:CG2	7:p:217:LYS:H	2.03	0.71
4:e:19:VAL:HG21	4:e:51:ILE:HG12	1.70	0.71
4:e:119:LEU:HD11	4:e:123:ARG:NH2	2.04	0.71
6:J:62:ALA:O	6:J:65:ILE:CG2	2.33	0.71
1:a:139:ALA:HA	7:p:94:MET:SD	2.30	0.71
6:S:81:VAL:HG21	6:T:80:PHE:CE2	2.25	0.71
1:a:50:LEU:HD12	7:p:104:LEU:CD2	2.21	0.71
1:a:134:ILE:CG2	1:a:191:PHE:CD1	2.71	0.71
6:H:10:VAL:HG23	6:I:74:LEU:HD21	1.72	0.71
7:p:189:LEU:HD11	8:b:125:LYS:CD	2.19	0.71
8:b:145:PHE:HE2	9:d:244:ILE:HG12	1.54	0.71
1:a:117:TRP:O	1:a:120:ILE:HG22	1.90	0.71
1:a:118:LYS:NZ	1:a:126:GLU:CB	2.54	0.71
2:C:17:ILE:HG12	9:d:148:ILE:HD12	1.73	0.71
2:A:18:GLU:H	7:p:217:LYS:HD2	1.55	0.71
5:g:253:GLU:HB2	5:g:269:ASP:C	2.14	0.71
5:g:118:VAL:CG1	5:g:148:LEU:HD13	2.20	0.71
7:p:123:ILE:HG22	8:b:64:ILE:CG1	1.98	0.71
7:p:143:GLN:C	8:b:85:LEU:CD2	2.62	0.71
2:C:27:VAL:CG2	2:C:47:GLU:OE1	2.38	0.71
2:C:230:ASP:HB3	3:B:311:GLU:HG3	1.73	0.71
2:E:140:ARG:HB2	3:F:210:ASN:HD22	1.53	0.71
2:A:28:ASN:ND2	2:A:47:GLU:HB3	2.05	0.71
2:C:379:VAL:HG12	2:C:438:ILE:HG22	1.70	0.71
3:D:293:PRO:CG	5:g:357:VAL:HG21	2.20	0.71
2:A:6:ALA:C	7:p:206:GLN:HB3	2.16	0.71
3:B:143:ASP:OD1	3:B:143:ASP:O	2.08	0.71
3:F:311:GLU:CB	2:A:230:ASP:HB3	2.21	0.71
2:A:17:ILE:CG2	7:p:213:ASP:O	2.38	0.71
1:a:139:ALA:CA	7:p:94:MET:SD	2.79	0.71
3:D:25:GLN:HG2	3:D:32:ASP:HB2	1.72	0.71
3:B:412:GLU:CD	5:g:319:ARG:HH22	1.98	0.71
4:e:37:HIS:HE1	6:L:41:ARG:HE	1.39	0.71
6:S:46:GLU:OE1	6:T:48:LYS:CG	2.39	0.71
6:J:48:LYS:CG	6:I:46:GLU:OE1	2.39	0.71
7:p:193:GLU:CB	7:p:196:LYS:HE2	2.20	0.71
2:E:282:PRO:HG3	5:g:354:LEU:HD22	1.73	0.71
3:B:412:GLU:CD	5:g:319:ARG:NH2	2.49	0.71
6:N:80:PHE:HD2	6:M:6:ALA:HB1	1.55	0.71
6:R:62:ALA:O	6:R:65:ILE:CG2	2.33	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:I:62:ALA:O	6:I:65:ILE:CG2	2.33	0.71
7:p:174:LEU:CD1	8:b:110:LEU:O	2.39	0.71
2:E:362:ILE:HG22	2:E:362:ILE:O	1.88	0.70
2:E:424:PRO:HB3	2:E:455:ARG:NH1	2.06	0.70
2:E:471:GLU:HB2	2:E:489:LEU:HD11	1.73	0.70
5:g:109:LEU:HD21	5:g:199:PHE:CD1	2.26	0.70
5:g:110:THR:HG23	5:g:296:LEU:CD1	2.20	0.70
6:N:48:LYS:CB	6:M:46:GLU:OE1	2.38	0.70
7:p:193:GLU:CA	7:p:196:LYS:HE2	2.20	0.70
8:b:160:LEU:CD2	8:b:164:LEU:HB2	2.21	0.70
1:a:33:PHE:CD1	7:p:88:LEU:HD11	2.26	0.70
2:C:469:LYS:HD3	2:C:489:LEU:HD23	1.73	0.70
2:E:152:ILE:H	2:E:423:GLN:NE2	1.87	0.70
2:A:17:ILE:HB	7:p:214:ILE:C	2.16	0.70
6:M:48:LYS:HZ3	6:L:43:PRO:C	1.99	0.70
1:a:139:ALA:CB	7:p:94:MET:SD	2.76	0.70
1:a:214:ILE:HG13	1:a:215:PRO:CD	2.19	0.70
1:a:225:GLY:O	1:a:228:ALA:HB3	1.90	0.70
2:E:157:MET:HA	2:E:384:LYS:HE2	1.73	0.70
2:A:119:ARG:HB3	8:b:127:GLU:OE2	1.91	0.70
3:B:401:LEU:CD2	3:B:404:ILE:CD1	2.68	0.70
5:g:103:GLU:HG2	6:R:41:ARG:NH2	2.06	0.70
6:T:43:PRO:HB3	6:G:48:LYS:CD	2.21	0.70
1:a:135:ASN:HD21	7:p:89:THR:HG23	1.56	0.70
1:a:149:PHE:HZ	1:a:163:LYS:HZ2	1.39	0.70
2:A:119:ARG:HB3	8:b:127:GLU:HG2	1.71	0.70
6:N:62:ALA:O	6:N:65:ILE:CG2	2.33	0.70
7:p:155:ILE:HG12	8:b:96:ARG:HB2	1.71	0.70
7:p:174:LEU:HG	8:b:114:THR:HB	1.74	0.70
9:d:183:VAL:HG22	9:d:214:ASP:O	1.90	0.70
2:E:9:ILE:HG23	2:E:13:ILE:CG2	2.22	0.70
2:E:390:PHE:CD1	2:E:414:GLY:HA3	2.26	0.70
3:B:71:ASN:ND2	9:d:77:ARG:CZ	2.54	0.70
5:g:222:LYS:HE2	5:g:224:ASP:CG	2.16	0.70
6:S:66:TYR:HB3	6:R:68:LEU:HD13	1.73	0.70
6:O:54:LEU:HD11	6:P:55:LEU:CD2	2.20	0.70
7:p:148:MET:SD	8:b:84:ARG:HG3	1.29	0.70
1:a:134:ILE:HD12	1:a:135:ASN:CA	2.21	0.70
2:A:6:ALA:O	7:p:206:GLN:C	2.33	0.70
5:g:50:ARG:HG2	5:g:50:ARG:HH11	1.57	0.70
5:g:239:ILE:CG1	5:g:303:GLN:HE22	2.05	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:66:TYR:HB3	6:K:68:LEU:HD13	1.73	0.70
7:p:126:GLN:HB2	8:b:64:ILE:CG2	2.22	0.70
7:p:141:GLU:H	8:b:78:LEU:N	1.63	0.70
7:p:214:ILE:HB	8:b:145:PHE:CE1	2.25	0.70
1:a:28:TRP:HB2	1:a:34:GLN:HB2	1.71	0.70
2:C:230:ASP:HB3	3:B:311:GLU:CG	2.21	0.70
3:D:268:VAL:HB	3:D:321:ILE:HG22	1.73	0.70
3:B:191:LYS:HE2	3:B:219:SER:CB	2.12	0.70
7:p:131:LYS:N	8:b:67:SER:CB	2.53	0.70
7:p:147:VAL:CG2	8:b:85:LEU:HD12	2.00	0.70
7:p:174:LEU:HD13	8:b:110:LEU:CD1	2.22	0.70
3:D:297:GLY:HA3	5:g:353:ILE:HD12	1.59	0.70
3:D:338:ALA:HB3	3:D:339:PRO:HD3	1.73	0.70
2:A:5:ARG:HE	8:b:140:VAL:HG23	1.55	0.70
7:p:88:LEU:O	7:p:92:ILE:HG12	1.92	0.70
1:a:69:GLN:HG3	7:p:116:MET:HE1	1.74	0.70
1:a:119:ILE:CA	8:b:31:LEU:HD21	2.20	0.70
1:a:134:ILE:HD12	1:a:134:ILE:C	2.17	0.70
2:C:77:MET:HE2	2:C:112:LEU:HD21	1.73	0.70
2:C:449:LEU:HD11	2:C:457:TYR:CD2	2.27	0.70
3:F:48:ILE:HG21	3:F:59:MET:HE2	1.73	0.70
2:A:6:ALA:C	7:p:207:ILE:H	1.97	0.70
6:J:80:PHE:HD2	6:I:6:ALA:HB1	1.57	0.70
7:p:140:LEU:HD12	8:b:75:ILE:C	2.17	0.70
6:S:43:PRO:HB3	6:T:48:LYS:CD	2.22	0.70
6:H:62:ALA:O	6:H:65:ILE:CG2	2.33	0.70
3:D:124:VAL:HG12	3:D:126:THR:HG22	1.74	0.69
2:E:401:SER:HB3	5:g:221:VAL:HG21	1.74	0.69
2:A:17:ILE:HG23	7:p:217:LYS:CG	2.21	0.69
5:g:115:VAL:O	5:g:115:VAL:HG12	1.92	0.69
6:S:80:PHE:CE2	6:R:81:VAL:HG21	2.27	0.69
7:p:181:ILE:C	8:b:118:LEU:HD11	2.16	0.69
8:b:61:LEU:CD1	8:b:65:ARG:HD3	2.22	0.69
6:Q:10:VAL:HG23	6:R:74:LEU:HD21	1.74	0.69
1:a:51:LEU:HA	7:p:108:TYR:HB2	1.74	0.69
1:a:122:LEU:HD13	1:a:127:LEU:CD1	2.20	0.69
2:C:7:ASP:OD2	2:C:70:ASN:CB	2.41	0.69
2:E:152:ILE:N	2:E:423:GLN:HE22	1.90	0.69
2:E:382:LYS:CD	2:E:442:THR:CG2	2.58	0.69
2:A:14:ARG:HH12	7:p:216:LYS:HE3	1.57	0.69
2:A:392:GLU:OE2	3:B:429:ARG:NH1	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:361:ILE:HG23	3:B:432:SER:HB3	1.74	0.69
4:e:4:ASN:HB2	4:e:18:GLU:HG2	1.75	0.69
5:g:117:LYS:HG3	5:g:154:ASP:O	1.92	0.69
6:P:10:VAL:HG23	6:Q:74:LEU:HD21	1.74	0.69
6:M:55:LEU:HD23	6:L:54:LEU:HD11	1.74	0.69
7:p:133:THR:HB	8:b:71:ARG:O	1.76	0.69
7:p:214:ILE:CG1	8:b:145:PHE:CD1	2.74	0.69
2:A:5:ARG:O	7:p:203:LEU:CD2	2.40	0.69
2:A:6:ALA:O	7:p:204:ASP:C	2.36	0.69
2:A:439:TYR:CD2	2:A:490:LEU:CD2	2.75	0.69
6:P:46:GLU:OE1	6:Q:48:LYS:CB	2.39	0.69
6:Q:46:GLU:OE1	6:R:48:LYS:CB	2.39	0.69
8:b:160:LEU:CD1	8:b:160:LEU:O	2.32	0.69
9:d:98:ASP:OD2	9:d:139:GLN:N	2.25	0.69
2:C:469:LYS:HD3	2:C:489:LEU:CD2	2.23	0.69
2:A:20:TYR:HE1	9:d:242:GLU:OE2	1.75	0.69
4:e:34:LEU:CD1	6:K:43:PRO:CB	2.70	0.69
1:a:27:TYR:HB3	1:a:124:HIS:HB2	1.73	0.69
2:C:5:ARG:NH1	9:d:154:ARG:CZ	2.56	0.69
2:C:169:ILE:HD11	2:C:322:THR:CG2	2.22	0.69
2:E:329:ALA:HB3	2:E:332:PRO:HD2	1.75	0.69
4:e:22:ILE:HG12	4:e:33:VAL:CG2	2.21	0.69
5:g:85:PHE:CE1	5:g:302:SER:OG	2.45	0.69
5:g:104:ASP:CB	6:S:41:ARG:NH2	2.55	0.69
5:g:222:LYS:HE2	5:g:224:ASP:OD1	1.93	0.69
6:P:43:PRO:C	6:Q:48:LYS:HZ3	2.01	0.69
6:K:74:LEU:CD2	6:J:10:VAL:HG23	2.23	0.69
7:p:166:THR:HB	8:b:103:ILE:HG12	1.74	0.69
1:a:51:LEU:HD23	7:p:108:TYR:HB2	1.73	0.69
1:a:182:LYS:CD	1:a:238:TYR:CE1	2.74	0.69
2:C:449:LEU:CD1	2:C:457:TYR:CD2	2.75	0.69
2:A:9:ILE:CA	7:p:206:GLN:HE21	2.05	0.69
6:J:55:LEU:CD2	6:I:54:LEU:HD11	2.23	0.69
7:p:137:VAL:N	8:b:75:ILE:CA	2.40	0.69
9:d:91:THR:O	9:d:95:THR:HG22	1.93	0.69
2:C:169:ILE:HG23	2:C:344:PHE:CD1	2.26	0.69
2:C:282:PRO:HG2	5:g:356:ILE:HG22	1.74	0.69
2:C:302:ALA:CB	2:C:314:MET:HG2	2.23	0.69
2:A:13:ILE:CD1	8:b:144:VAL:CG1	2.70	0.69
3:B:149:PHE:HE2	3:B:189:ILE:HD11	1.58	0.69
6:N:48:LYS:NZ	6:M:43:PRO:HB3	2.06	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:55:LEU:CD2	6:M:54:LEU:HD11	2.22	0.69
6:Q:43:PRO:HB3	6:R:48:LYS:NZ	2.06	0.69
7:p:123:ILE:CG2	8:b:60:ILE:CG1	2.65	0.69
7:p:127:LEU:HD12	8:b:63:THR:CB	2.21	0.69
7:p:156:SER:CB	8:b:95:PHE:CE2	2.67	0.69
7:p:184:GLU:OE1	8:b:122:GLU:CD	2.35	0.69
2:C:302:ALA:HB1	2:C:314:MET:HG2	1.74	0.69
2:C:490:LEU:O	2:C:490:LEU:HD23	1.93	0.69
2:E:65:LEU:HD12	2:E:75:VAL:CG2	2.22	0.69
2:E:327:VAL:HG21	2:E:344:PHE:HE1	1.57	0.69
2:A:16:ARG:HH11	8:b:141:ARG:HB3	1.55	0.69
2:A:17:ILE:HD13	7:p:216:LYS:C	2.18	0.69
6:O:43:PRO:HB2	6:P:48:LYS:NZ	2.07	0.69
1:a:134:ILE:HD11	7:p:90:LEU:HD21	1.69	0.69
2:E:154:ILE:HD12	2:E:358:ILE:HD11	1.72	0.69
4:e:21:GLU:OE2	4:e:34:LEU:CD2	2.39	0.69
6:K:48:LYS:CD	6:J:43:PRO:HB3	2.22	0.69
7:p:218:VAL:HB	9:d:243:GLU:CD	2.18	0.69
1:a:47:ILE:HD12	7:p:100:LEU:CG	1.55	0.68
2:E:464:TYR:HE1	2:E:468:ASN:HD21	1.32	0.68
3:B:111:PHE:HE1	3:B:124:VAL:HG21	1.57	0.68
6:S:10:VAL:HG23	6:T:74:LEU:HD21	1.75	0.68
6:L:48:LYS:NZ	6:K:43:PRO:HB2	2.08	0.68
7:p:131:LYS:N	8:b:67:SER:CA	2.55	0.68
7:p:148:MET:HE2	8:b:88:VAL:CG2	2.23	0.68
2:E:105:LEU:HD21	2:E:193:ILE:HG23	1.75	0.68
2:A:4:ILE:HA	7:p:199:THR:CA	2.23	0.68
6:M:62:ALA:O	6:M:65:ILE:CG2	2.33	0.68
6:H:81:VAL:HG21	6:I:80:PHE:CE2	2.27	0.68
6:G:73:ALA:CA	7:p:84:PHE:CZ	2.71	0.68
1:a:115:LEU:H	8:b:34:LEU:HD21	1.58	0.68
1:a:182:LYS:HD2	1:a:238:TYR:CD1	2.27	0.68
2:C:379:VAL:HG12	2:C:438:ILE:HG21	1.75	0.68
2:E:109:ILE:CG1	2:E:113:ALA:HA	2.23	0.68
2:A:5:ARG:NE	8:b:140:VAL:HG23	2.09	0.68
2:A:13:ILE:CD1	8:b:144:VAL:HG12	2.23	0.68
3:B:261:ARG:NH1	3:B:314:THR:O	2.26	0.68
6:K:74:LEU:HD22	6:J:10:VAL:CG2	2.23	0.68
2:C:100:VAL:HG23	2:C:246:LEU:HD23	1.76	0.68
3:D:297:GLY:HA2	5:g:353:ILE:HD12	1.66	0.68
2:E:238:LEU:HG	2:E:238:LEU:O	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:17:ILE:HG22	7:p:214:ILE:HA	1.75	0.68
5:g:121:MET:HE3	5:g:160:ILE:HD11	1.74	0.68
5:g:123:VAL:HG22	5:g:160:ILE:HD12	1.76	0.68
6:Q:62:ALA:O	6:Q:65:ILE:CG2	2.33	0.68
7:p:162:MET:HE1	8:b:100:TYR:OH	1.94	0.68
1:a:69:GLN:HE21	7:p:116:MET:CE	2.07	0.68
1:a:79:ILE:CD1	1:a:99:GLY:CA	2.64	0.68
1:a:134:ILE:CD1	1:a:135:ASN:N	2.47	0.68
3:D:109:ARG:NH2	3:D:122:GLY:O	2.24	0.68
3:D:347:ASP:O	3:D:373:THR:HG23	1.94	0.68
2:E:214:GLN:HE22	2:E:219:MET:HB3	1.55	0.68
2:A:260:ILE:CD1	2:A:317:LEU:HD12	2.23	0.68
7:p:214:ILE:HG23	9:d:247:GLN:HE22	1.58	0.68
1:a:132:ASN:O	1:a:191:PHE:CE1	2.45	0.68
2:C:373:ILE:HG13	2:C:376:MET:H	1.58	0.68
2:E:24:VAL:HG11	9:d:119:VAL:HG21	1.76	0.68
2:A:5:ARG:HD2	8:b:140:VAL:CG2	2.24	0.68
5:g:284:PHE:HD1	5:g:291:ILE:CD1	2.06	0.68
6:M:48:LYS:HD3	6:L:46:GLU:OE1	1.92	0.68
7:p:148:MET:CE	8:b:88:VAL:HG23	2.23	0.68
2:E:154:ILE:CD1	2:E:358:ILE:CD1	2.71	0.68
2:A:5:ARG:O	7:p:203:LEU:HG	1.93	0.68
3:B:53:ASP:HB3	3:B:59:MET:HE3	1.76	0.68
5:g:117:LYS:HA	5:g:153:VAL:O	1.92	0.68
6:S:42:GLN:NE2	6:R:43:PRO:HG2	2.09	0.68
6:S:43:PRO:C	6:T:48:LYS:HZ3	2.02	0.68
6:N:43:PRO:HB3	6:O:48:LYS:NZ	2.07	0.68
3:D:189:ILE:HD11	3:D:267:ASP:O	1.94	0.68
2:E:416:ARG:CD	2:E:447:ASP:HA	2.24	0.68
6:Q:68:LEU:HD13	6:R:66:TYR:HB3	1.76	0.68
1:a:62:GLN:OE1	1:a:66:THR:HB	1.94	0.68
2:C:279:ARG:NH1	5:g:363:CYS:CB	2.57	0.68
2:E:159:PRO:HG3	2:E:368:GLY:O	1.92	0.68
3:F:195:GLY:HA3	3:F:267:ASP:O	1.94	0.68
2:A:12:ILE:N	7:p:210:LEU:HD13	1.93	0.68
2:A:169:ILE:HD11	2:A:322:THR:CG2	2.24	0.68
5:g:137:LEU:HD12	5:g:213:LEU:HD13	1.76	0.68
5:g:253:GLU:HB3	5:g:270:MET:CB	2.24	0.68
6:H:43:PRO:HB3	6:I:48:LYS:NZ	2.09	0.68
1:a:64:ILE:HD11	8:b:61:LEU:HD23	1.74	0.67
1:a:134:ILE:HG22	1:a:191:PHE:CE1	2.23	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:237:TYR:CE1	2:C:294:LEU:HD11	2.28	0.67
2:E:216:ARG:CZ	2:E:426:SER:OG	2.41	0.67
5:g:83:ARG:NH2	5:g:273:THR:HG21	2.07	0.67
1:a:64:ILE:HG23	8:b:57:LYS:HG2	1.76	0.67
1:a:114:LEU:CG	8:b:38:LEU:CA	2.72	0.67
1:a:161:PHE:HE1	1:a:163:LYS:HG3	0.51	0.67
3:D:275:ILE:HG21	3:D:327:VAL:HG22	1.74	0.67
3:D:293:PRO:HD3	5:g:357:VAL:HG21	1.69	0.67
2:E:495:GLN:OE1	2:E:498:MET:HE3	1.93	0.67
2:A:227:GLU:HG3	2:A:239:ALA:HB2	1.76	0.67
7:p:218:VAL:O	9:d:243:GLU:CD	2.37	0.67
9:d:114:PHE:HD1	9:d:120:ILE:HD13	1.60	0.67
1:a:36:HIS:CG	7:p:89:THR:HG21	2.27	0.67
2:C:16:ARG:HG2	9:d:148:ILE:HG12	1.76	0.67
2:C:82:MET:HA	2:C:82:MET:CE	2.05	0.67
4:e:119:LEU:CD1	4:e:123:ARG:NH2	2.57	0.67
5:g:251:GLU:HG3	5:g:272:LYS:HG2	1.75	0.67
5:g:281:ILE:CG1	6:M:41:ARG:HG3	2.24	0.67
7:p:174:LEU:CD1	8:b:110:LEU:C	2.67	0.67
7:p:214:ILE:CD1	8:b:145:PHE:CG	2.58	0.67
8:b:114:THR:O	8:b:117:THR:CG2	2.40	0.67
9:d:177:VAL:HG11	9:d:210:LYS:CD	2.23	0.67
9:d:235:MET:HE3	9:d:239:LYS:CG	2.25	0.67
1:a:135:ASN:N	7:p:90:LEU:CD2	2.57	0.67
2:C:355:ARG:NH1	3:B:389:GLN:NE2	2.41	0.67
2:C:490:LEU:HD23	2:C:490:LEU:C	2.19	0.67
3:D:100:VAL:CG1	3:D:256:MET:HE2	2.23	0.67
2:E:42:ILE:HD13	2:E:89:VAL:HG11	1.76	0.67
2:A:4:ILE:HA	7:p:199:THR:O	1.93	0.67
6:P:43:PRO:HB3	6:Q:48:LYS:HD2	1.74	0.67
7:p:140:LEU:HD23	8:b:78:LEU:HD22	0.67	0.67
7:p:185:LEU:CG	8:b:121:PHE:CE2	2.76	0.67
2:C:284:ARG:NH1	2:C:330:TYR:HD1	1.91	0.67
3:D:100:VAL:HG12	3:D:256:MET:CE	2.24	0.67
2:E:469:LYS:HZ2	2:E:492:GLU:HB2	1.57	0.67
2:A:16:ARG:NH1	8:b:141:ARG:CB	2.56	0.67
5:g:104:ASP:HB2	6:S:41:ARG:NH2	2.09	0.67
6:L:62:ALA:O	6:L:65:ILE:CG2	2.33	0.67
7:p:185:LEU:HB3	8:b:121:PHE:HE2	1.59	0.67
8:b:114:THR:C	8:b:117:THR:HG22	2.19	0.67
1:a:64:ILE:HG22	8:b:57:LYS:CG	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:286:ALA:CA	5:g:356:ILE:HD13	2.24	0.67
2:C:469:LYS:HE3	2:C:493:ALA:CA	2.24	0.67
6:G:62:ALA:O	6:G:65:ILE:CG2	2.33	0.67
7:p:162:MET:HG3	8:b:100:TYR:CD2	2.30	0.67
7:p:207:ILE:HG23	8:b:144:VAL:HG22	1.76	0.67
6:S:46:GLU:OE1	6:T:48:LYS:CB	2.42	0.67
6:M:48:LYS:NZ	6:L:43:PRO:CB	2.57	0.67
2:C:7:ASP:CG	2:C:70:ASN:HB3	2.19	0.67
3:D:22:ARG:HH12	3:D:90:GLU:HB3	1.59	0.67
4:e:4:ASN:HB2	4:e:18:GLU:CD	2.20	0.67
1:a:24:GLN:CB	7:p:83:LEU:CB	2.73	0.67
1:a:137:THR:HG21	1:a:191:PHE:CA	2.24	0.67
1:a:193:ASN:HD22	1:a:227:GLN:HG3	1.54	0.67
2:E:344:PHE:CE2	2:E:362:ILE:HG22	2.30	0.67
6:L:74:LEU:CD2	6:K:10:VAL:CG2	2.73	0.67
6:J:48:LYS:CB	6:I:46:GLU:OE1	2.42	0.67
7:p:155:ILE:HG12	8:b:96:ARG:CB	2.24	0.67
1:a:40:LEU:HD23	7:p:93:ILE:CD1	2.24	0.67
1:a:70:ASN:HB2	8:b:53:LEU:HB2	1.72	0.67
3:D:113:VAL:HG22	3:D:249:VAL:HG13	1.75	0.67
2:E:39:ILE:CD1	2:E:278:LEU:HD21	2.25	0.67
6:T:81:VAL:HG21	6:G:80:PHE:CE2	2.30	0.67
9:d:224:ARG:HH12	9:d:232:LEU:HD13	1.59	0.67
3:D:100:VAL:HG12	3:D:256:MET:HE2	1.76	0.66
2:A:184:ILE:HD11	2:A:260:ILE:HG13	1.77	0.66
4:e:109:LYS:O	4:e:113:ILE:HG12	1.95	0.66
5:g:284:PHE:CD1	5:g:291:ILE:HD12	2.30	0.66
7:p:214:ILE:HD13	8:b:145:PHE:CA	2.25	0.66
1:a:113:ALA:O	8:b:34:LEU:HA	1.93	0.66
2:C:469:LYS:HB3	2:C:489:LEU:HD21	1.77	0.66
3:F:112:ASN:HD22	3:F:116:GLU:HB2	1.60	0.66
2:A:6:ALA:C	7:p:203:LEU:HG	2.20	0.66
2:A:13:ILE:HD12	8:b:145:PHE:CA	2.25	0.66
6:P:43:PRO:HB2	6:Q:48:LYS:HZ2	1.60	0.66
1:a:103:LEU:HB2	7:p:109:TYR:HH	1.58	0.66
2:C:279:ARG:NH2	5:g:363:CYS:HB3	2.11	0.66
3:D:101:PRO:HB3	3:D:126:THR:HG21	1.77	0.66
3:D:310:GLN:HE22	3:D:325:GLN:HE22	1.43	0.66
7:p:144:ALA:HB1	8:b:84:ARG:H	1.61	0.66
9:d:86:ALA:HB1	9:d:95:THR:HG21	1.77	0.66
1:a:114:LEU:CB	8:b:38:LEU:CA	2.70	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:14:ARG:HB2	9:d:85:VAL:CG2	2.25	0.66
2:A:15:GLU:N	7:p:213:ASP:OD2	2.26	0.66
4:e:3:LEU:HD23	4:e:35:PRO:HA	1.78	0.66
4:e:119:LEU:HD12	4:e:123:ARG:CZ	2.25	0.66
6:S:62:ALA:O	6:S:65:ILE:N	2.28	0.66
6:Q:62:ALA:O	6:Q:65:ILE:N	2.29	0.66
6:R:62:ALA:O	6:R:65:ILE:N	2.29	0.66
6:T:62:ALA:O	6:T:65:ILE:N	2.28	0.66
6:K:48:LYS:HZ3	6:J:43:PRO:CA	2.08	0.66
8:b:160:LEU:HB2	8:b:163:GLU:HB2	1.78	0.66
1:a:118:LYS:O	8:b:27:LEU:N	2.28	0.66
2:E:296:SER:HB2	3:F:239:MET:HB3	1.77	0.66
2:E:430:THR:HG22	2:E:432:GLU:OE1	1.95	0.66
2:E:433:GLU:OE1	2:E:462:ARG:CD	2.37	0.66
3:F:275:ILE:HD13	3:F:306:MET:HE1	1.76	0.66
2:A:435:VAL:HG21	2:A:476:ILE:HD11	1.76	0.66
6:P:62:ALA:O	6:P:65:ILE:N	2.29	0.66
6:Q:10:VAL:CG2	6:R:74:LEU:HD21	2.26	0.66
8:b:160:LEU:CD1	8:b:164:LEU:H	0.10	0.66
1:a:33:PHE:HB3	7:p:88:LEU:CD1	2.26	0.66
1:a:116:PRO:HA	8:b:31:LEU:HA	1.76	0.66
1:a:135:ASN:ND2	7:p:89:THR:HG23	2.10	0.66
2:C:208:GLN:NE2	3:B:144:THR:CG2	2.37	0.66
2:A:5:ARG:C	7:p:203:LEU:HD23	2.20	0.66
2:A:17:ILE:HG21	7:p:214:ILE:C	2.21	0.66
6:O:62:ALA:O	6:O:65:ILE:N	2.28	0.66
7:p:155:ILE:CG2	8:b:95:PHE:CD2	2.78	0.66
8:b:77:GLN:O	8:b:80:LYS:HB2	1.95	0.66
2:E:464:TYR:CD2	2:E:497:GLN:HB2	2.31	0.66
3:F:412:GLU:OE2	5:g:129:LEU:HA	1.96	0.66
2:A:17:ILE:HG21	7:p:213:ASP:O	1.94	0.66
5:g:83:ARG:HH22	5:g:273:THR:CG2	2.09	0.66
6:T:10:VAL:HG23	6:G:74:LEU:HD21	1.78	0.66
7:p:144:ALA:N	8:b:82:ARG:HA	1.79	0.66
7:p:155:ILE:CA	8:b:96:ARG:HB2	2.26	0.66
1:a:115:LEU:O	8:b:34:LEU:CD2	2.29	0.66
2:C:109:ILE:HD12	2:C:113:ALA:HA	1.77	0.66
2:A:119:ARG:HD2	8:b:124:TYR:CE1	2.31	0.66
6:N:62:ALA:O	6:N:65:ILE:N	2.28	0.66
6:Q:43:PRO:C	6:R:48:LYS:HZ3	2.04	0.66
6:G:62:ALA:O	6:G:65:ILE:N	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:62:ALA:O	6:H:65:ILE:N	2.28	0.66
7:p:193:GLU:O	7:p:196:LYS:CG	2.44	0.66
7:p:212:ASP:OD1	7:p:215:VAL:HG11	1.96	0.66
8:b:121:PHE:CZ	8:b:125:LYS:CE	2.79	0.66
1:a:116:PRO:HB2	8:b:31:LEU:CB	2.21	0.66
2:C:284:ARG:CG	5:g:353:ILE:HD11	2.25	0.66
3:F:132:ILE:O	3:F:312:ARG:NH1	2.29	0.66
2:A:12:ILE:CG2	8:b:141:ARG:HG2	2.25	0.66
6:O:46:GLU:CD	6:P:48:LYS:HB3	2.20	0.66
6:T:33:GLY:HA3	6:G:31:ALA:HA	1.77	0.66
6:T:46:GLU:OE1	6:G:48:LYS:HG2	1.96	0.66
7:p:133:THR:CG2	8:b:71:ARG:HH21	1.79	0.66
1:a:54:ALA:O	7:p:112:LEU:HD21	1.97	0.65
2:A:13:ILE:CG2	7:p:211:SER:O	2.41	0.65
2:A:24:VAL:C	8:b:179:MET:HE2	2.21	0.65
6:N:46:GLU:OE1	6:O:48:LYS:HG2	1.95	0.65
6:P:62:ALA:O	6:P:65:ILE:CG2	2.33	0.65
6:Q:6:ALA:HB1	6:R:80:PHE:CD2	2.30	0.65
2:E:157:MET:HG2	2:E:384:LYS:HG2	1.77	0.65
4:e:42:THR:HG22	5:g:285:GLU:HB2	1.79	0.65
2:A:4:ILE:HA	7:p:199:THR:HA	1.78	0.65
6:N:46:GLU:CD	6:O:48:LYS:HB3	2.21	0.65
6:M:62:ALA:O	6:M:65:ILE:N	2.28	0.65
6:T:6:ALA:HB1	6:G:80:PHE:HD2	1.61	0.65
6:K:74:LEU:HD21	6:J:10:VAL:HG23	1.78	0.65
6:I:62:ALA:O	6:I:65:ILE:N	2.28	0.65
8:b:160:LEU:CD1	8:b:164:LEU:N	0.78	0.65
1:a:134:ILE:HD12	1:a:135:ASN:H	1.60	0.65
3:F:64:GLU:OE2	3:F:133:HIS:NE2	2.30	0.65
2:A:4:ILE:HD13	7:p:199:THR:CA	2.17	0.65
3:B:111:PHE:CE1	3:B:124:VAL:HG21	2.31	0.65
6:K:80:PHE:CE2	6:J:81:VAL:HG21	2.30	0.65
7:p:107:ILE:O	7:p:111:PRO:HG2	1.97	0.65
7:p:170:VAL:HG13	8:b:111:ILE:CG2	2.25	0.65
7:p:214:ILE:HD13	8:b:145:PHE:CB	2.27	0.65
3:D:447:LYS:HZ3	3:D:482:GLU:CD	1.99	0.65
2:A:17:ILE:CG2	7:p:214:ILE:C	2.69	0.65
2:A:469:LYS:HZ3	2:A:492:GLU:HB2	1.61	0.65
3:B:62:THR:HG21	3:B:98:LEU:HD21	1.79	0.65
5:g:149:LYS:NZ	5:g:155:TYR:HE1	1.93	0.65
6:Q:54:LEU:HD11	6:R:55:LEU:CD2	2.25	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:T:40:ALA:CB	6:G:49:ILE:HD11	2.23	0.65
6:G:43:PRO:HB3	6:H:48:LYS:NZ	2.12	0.65
6:J:62:ALA:O	6:J:65:ILE:N	2.29	0.65
7:p:123:ILE:CG2	8:b:64:ILE:HD12	1.79	0.65
9:d:198:VAL:HA	9:d:201:ILE:CG1	2.27	0.65
1:a:27:TYR:HB2	8:b:22:PHE:CE1	2.31	0.65
2:C:30:GLY:HA3	2:C:45:LEU:HG	1.78	0.65
2:C:430:THR:HG22	2:C:432:GLU:OE1	1.97	0.65
2:E:109:ILE:HG23	2:E:225:VAL:HA	1.77	0.65
2:A:237:TYR:CE1	2:A:294:LEU:HD21	2.31	0.65
3:B:64:GLU:OE1	3:B:248:ARG:NH2	2.29	0.65
5:g:107:VAL:HG11	5:g:296:LEU:HD12	1.77	0.65
5:g:281:ILE:HD13	6:M:41:ARG:O	1.97	0.65
2:E:436:MET:HG3	2:E:490:LEU:CD1	2.27	0.65
4:e:96:LEU:HD13	4:e:123:ARG:HA	1.78	0.65
5:g:240:CYS:HB3	5:g:246:CYS:HG	1.43	0.65
6:S:48:LYS:HD2	6:R:43:PRO:HB3	1.77	0.65
6:T:43:PRO:CA	6:G:48:LYS:HZ3	2.09	0.65
8:b:165:HIS:HE1	9:d:184:VAL:HG21	1.61	0.65
2:A:13:ILE:CD1	8:b:144:VAL:CB	2.68	0.65
7:p:203:LEU:HG	7:p:203:LEU:O	1.95	0.65
6:H:43:PRO:HB3	6:I:48:LYS:HD2	1.77	0.65
6:L:62:ALA:O	6:L:65:ILE:N	2.29	0.65
6:K:62:ALA:O	6:K:65:ILE:N	2.28	0.65
7:p:214:ILE:HD11	8:b:145:PHE:O	1.96	0.65
1:a:36:HIS:ND1	7:p:89:THR:CG2	2.57	0.65
1:a:47:ILE:CD1	7:p:100:LEU:CA	2.75	0.65
2:A:17:ILE:CG2	7:p:214:ILE:HA	2.27	0.65
2:A:166:GLU:O	2:A:318:PRO:HD2	1.96	0.65
2:A:251:MET:HE3	2:A:252:TYR:CE1	2.32	0.65
6:S:43:PRO:CA	6:T:48:LYS:HZ3	2.09	0.65
6:K:48:LYS:HG2	6:J:46:GLU:OE1	1.96	0.65
3:D:293:PRO:HB2	5:g:353:ILE:HG21	1.79	0.64
2:A:4:ILE:CD1	7:p:199:THR:HA	2.17	0.64
6:S:43:PRO:HB2	6:T:48:LYS:HZ2	1.58	0.64
6:O:43:PRO:CG	6:P:42:GLN:NE2	2.59	0.64
6:O:43:PRO:HB3	6:P:48:LYS:NZ	2.12	0.64
1:a:114:LEU:HD13	8:b:38:LEU:N	2.10	0.64
6:O:43:PRO:C	6:P:48:LYS:HZ3	2.05	0.64
7:p:166:THR:OG1	8:b:107:LYS:CB	2.41	0.64
9:d:224:ARG:CZ	9:d:232:LEU:HD12	2.24	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:14:ARG:O	2:C:18:GLU:HG3	1.98	0.64
2:E:497:GLN:HA	2:E:497:GLN:NE2	2.12	0.64
2:A:164:GLN:HG2	2:A:165:ARG:H	1.62	0.64
1:a:114:LEU:HA	8:b:34:LEU:C	2.22	0.64
1:a:149:PHE:HZ	1:a:163:LYS:NZ	1.95	0.64
1:a:184:LEU:HD21	1:a:188:PHE:HE2	1.63	0.64
2:E:214:GLN:HE21	2:E:219:MET:CG	1.80	0.64
6:S:74:LEU:HD21	6:R:10:VAL:HG23	1.77	0.64
6:P:43:PRO:HB3	6:Q:48:LYS:CD	2.27	0.64
6:T:62:ALA:O	6:T:65:ILE:CG2	2.33	0.64
6:L:48:LYS:NZ	6:K:43:PRO:HB3	2.13	0.64
8:b:88:VAL:C	8:b:90:MET:N	2.53	0.64
9:d:109:GLU:N	9:d:110:PRO:HD2	2.13	0.64
2:C:237:TYR:HE1	2:C:294:LEU:HD11	1.61	0.64
2:E:475:ILE:HG21	2:E:486:ALA:HB2	1.79	0.64
2:A:26:VAL:HA	9:d:233:VAL:HG12	1.78	0.64
2:A:54:VAL:HG13	2:A:90:LYS:O	1.97	0.64
6:N:48:LYS:HZ3	6:M:43:PRO:C	2.05	0.64
6:N:54:LEU:HD11	6:O:55:LEU:HD23	1.79	0.64
6:K:80:PHE:HD2	6:J:6:ALA:HB1	1.62	0.64
8:b:82:ARG:CG	8:b:85:LEU:CD2	2.48	0.64
9:d:87:ASP:CB	9:d:172:ILE:HD11	2.26	0.64
9:d:197:GLY:O	9:d:201:ILE:HG12	1.97	0.64
3:F:311:GLU:HG3	2:A:230:ASP:CB	2.26	0.64
2:A:12:ILE:HG21	8:b:141:ARG:CG	2.27	0.64
3:B:53:ASP:HB3	3:B:59:MET:HE2	1.80	0.64
4:e:91:GLU:N	4:e:91:GLU:OE1	2.30	0.64
5:g:83:ARG:NH2	5:g:273:THR:HG23	2.11	0.64
5:g:251:GLU:HG3	5:g:272:LYS:CG	2.28	0.64
6:K:48:LYS:HZ2	6:J:43:PRO:HB2	1.58	0.64
1:a:47:ILE:CD1	7:p:100:LEU:HG	1.13	0.64
3:D:384:HIS:O	3:D:387:ILE:HG22	1.98	0.64
3:F:216:MET:CB	3:F:222:ILE:HG12	2.27	0.64
5:g:83:ARG:HH22	5:g:273:THR:HG23	1.62	0.64
6:G:43:PRO:HB2	6:H:48:LYS:NZ	2.11	0.64
6:K:62:ALA:O	6:K:65:ILE:CG2	2.33	0.64
7:p:90:LEU:HB2	7:p:91:PRO:CD	2.26	0.64
8:b:159:CYS:HB3	8:b:164:LEU:HD23	1.80	0.64
2:C:461:LEU:HD23	2:C:461:LEU:C	2.23	0.64
3:F:296:VAL:HG12	3:F:297:GLY:N	2.10	0.64
2:A:18:GLU:CD	7:p:217:LYS:HZ2	1.89	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:308:LEU:HD22	2:A:309:LEU:CD1	2.28	0.64
3:B:423:ARG:HH21	3:B:464:GLY:HA3	1.61	0.64
5:g:57:THR:O	5:g:61:THR:HG23	1.97	0.64
5:g:202:PHE:CB	5:g:231:LEU:HD13	2.28	0.64
6:H:46:GLU:OE1	6:I:48:LYS:HG2	1.98	0.64
2:E:279:ARG:NH1	5:g:361:ASN:CG	2.53	0.64
3:F:410:LEU:HD23	3:F:413:LEU:HD12	1.77	0.64
2:A:9:ILE:HD11	8:b:140:VAL:HG12	0.91	0.64
3:B:411:ASP:CA	3:B:418:ARG:HH21	2.02	0.64
4:e:25:SER:O	4:e:44:VAL:HG23	1.97	0.64
7:p:136:GLU:O	8:b:78:LEU:HB3	1.95	0.64
8:b:160:LEU:CD1	8:b:163:GLU:HB2	2.24	0.64
2:E:446:LEU:HD13	2:E:454:VAL:HG13	1.79	0.64
2:E:469:LYS:NZ	2:E:492:GLU:CB	2.59	0.64
2:E:495:GLN:OE1	2:E:498:MET:CE	2.46	0.64
3:B:179:THR:O	3:B:182:ILE:CG2	2.43	0.64
3:B:261:ARG:HD3	3:B:321:ILE:CD1	2.27	0.64
6:G:10:VAL:CG2	6:H:74:LEU:HD21	2.25	0.64
1:a:221:LEU:HD22	8:b:37:VAL:HG11	1.80	0.63
4:e:21:GLU:CG	4:e:34:LEU:HD22	2.24	0.63
5:g:79:VAL:CG1	5:g:306:ARG:HH22	2.11	0.63
5:g:113:ARG:HH11	5:g:205:GLU:HB3	0.62	0.63
5:g:144:ARG:NH2	5:g:242:ILE:HD12	2.13	0.63
6:O:42:GLN:HE21	6:O:44:GLU:HB3	1.62	0.63
6:G:76:PHE:HB3	7:p:83:LEU:HD11	1.78	0.63
1:a:70:ASN:CB	8:b:53:LEU:C	2.71	0.63
5:g:72:VAL:HG12	5:g:257:LEU:CD2	2.28	0.63
6:N:43:PRO:HB3	6:O:48:LYS:HD2	1.79	0.63
6:P:6:ALA:HB1	6:Q:80:PHE:HD2	1.63	0.63
7:p:211:SER:CB	8:b:144:VAL:CG1	2.75	0.63
9:d:152:SER:C	9:d:153:GLU:CD	2.63	0.63
9:d:222:THR:HG23	9:d:234:ASP:HB2	1.60	0.63
1:a:33:PHE:HD1	7:p:88:LEU:HD11	1.59	0.63
1:a:53:SER:HA	1:a:56:ILE:HG22	1.79	0.63
1:a:119:ILE:O	8:b:26:ILE:CA	2.46	0.63
2:E:104:TYR:HE2	2:E:109:ILE:HD12	1.63	0.63
6:M:48:LYS:CD	6:L:46:GLU:OE1	2.45	0.63
6:J:42:GLN:HE22	6:I:43:PRO:CG	2.10	0.63
7:p:156:SER:HB2	8:b:95:PHE:CE2	2.33	0.63
7:p:210:LEU:HD21	8:b:141:ARG:HA	1.81	0.63
1:a:36:HIS:CG	7:p:89:THR:CG2	2.82	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:113:VAL:HG22	3:F:249:VAL:HG22	1.79	0.63
7:p:126:GLN:OE1	7:p:126:GLN:HA	1.96	0.63
1:a:119:ILE:CA	8:b:31:LEU:CD2	2.75	0.63
3:D:336:ASP:HB3	3:D:339:PRO:HD2	1.80	0.63
2:A:6:ALA:C	7:p:206:GLN:N	2.54	0.63
7:p:144:ALA:HA	8:b:85:LEU:HG	1.79	0.63
1:a:62:GLN:H	7:p:119:ARG:HD3	0.66	0.63
1:a:73:GLU:OE1	7:p:116:MET:SD	2.57	0.63
2:E:9:ILE:CG2	2:E:14:ARG:HG3	2.27	0.63
2:E:436:MET:HG3	2:E:490:LEU:HD11	1.80	0.63
2:A:6:ALA:HB1	7:p:204:ASP:C	2.19	0.63
2:A:12:ILE:HB	7:p:210:LEU:CD2	2.28	0.63
2:A:13:ILE:CG2	7:p:214:ILE:HG23	2.29	0.63
2:A:110:ASN:HB2	2:A:114:LYS:O	1.99	0.63
4:e:19:VAL:HA	4:e:53:LEU:CD1	2.17	0.63
6:S:48:LYS:CD	6:R:43:PRO:HB3	2.28	0.63
6:H:43:PRO:CG	6:I:42:GLN:NE2	2.62	0.63
7:p:174:LEU:HD21	8:b:114:THR:CB	2.28	0.63
9:d:201:ILE:HG13	9:d:202:THR:N	2.12	0.63
1:a:122:LEU:HA	8:b:24:THR:HA	1.79	0.63
2:E:154:ILE:HD11	2:E:358:ILE:HD11	1.79	0.63
2:A:35:VAL:HG21	2:A:83:ILE:CG2	2.28	0.63
2:A:130:ILE:HG23	2:A:241:TYR:HB3	1.80	0.63
2:A:181:THR:HG23	2:A:213:PHE:CE1	2.33	0.63
2:A:260:ILE:HD12	2:A:317:LEU:HD12	1.81	0.63
7:p:177:GLY:O	7:p:181:ILE:HG12	1.99	0.63
2:A:20:TYR:HE1	9:d:242:GLU:CG	2.10	0.63
2:A:28:ASN:OD1	2:A:47:GLU:CB	2.44	0.63
2:A:152:ILE:HG22	2:A:423:GLN:HE21	1.62	0.63
2:A:176:LYS:HE3	11:A:600:ATP:O1B	1.99	0.63
3:B:132:ILE:O	3:B:312:ARG:NH1	2.31	0.63
3:B:275:ILE:HG21	3:B:327:VAL:HG22	1.81	0.63
6:H:46:GLU:CD	6:I:48:LYS:HB3	2.23	0.63
6:J:74:LEU:HD22	6:I:10:VAL:HG22	1.80	0.63
7:p:85:ASP:C	7:p:86:PHE:HD1	2.07	0.63
7:p:218:VAL:CG1	8:b:145:PHE:HE1	2.12	0.63
9:d:115:PHE:HB3	9:d:155:ILE:HD13	1.79	0.63
6:G:43:PRO:CG	6:H:42:GLN:NE2	2.60	0.63
7:p:155:ILE:CG1	8:b:96:ARG:HB2	2.29	0.63
7:p:158:ALA:HB1	8:b:96:ARG:HE	1.63	0.63
2:E:327:VAL:O	2:E:327:VAL:HG12	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:136:GLU:CG	8:b:75:ILE:CG1	2.69	0.62
9:d:177:VAL:CG1	9:d:210:LYS:HD2	2.27	0.62
9:d:222:THR:CB	9:d:234:ASP:HB3	2.27	0.62
1:a:184:LEU:CD2	1:a:188:PHE:CE2	2.82	0.62
2:C:100:VAL:HG23	2:C:246:LEU:CD2	2.29	0.62
2:C:345:LEU:HD21	2:C:358:ILE:HD13	1.79	0.62
2:A:8:GLU:N	7:p:203:LEU:HG	2.11	0.62
2:A:237:TYR:HE1	2:A:294:LEU:HD22	1.64	0.62
6:O:10:VAL:CG2	6:P:74:LEU:HD21	2.25	0.62
1:a:222:PHE:HZ	6:H:55:LEU:HD11	1.62	0.62
2:C:77:MET:CE	2:C:112:LEU:HD21	2.30	0.62
3:F:426:LYS:HZ3	3:F:467:ASP:HA	1.63	0.62
2:A:5:ARG:CD	8:b:140:VAL:CG2	2.77	0.62
2:A:8:GLU:HB2	7:p:206:GLN:HG2	1.80	0.62
5:g:71:LYS:HB3	5:g:316:LEU:HD13	1.81	0.62
3:F:338:ALA:HB3	3:F:339:PRO:HD3	1.79	0.62
3:F:426:LYS:NZ	3:F:467:ASP:HA	2.14	0.62
3:B:67:GLN:HE21	3:B:75:ARG:HD2	1.63	0.62
6:S:48:LYS:HZ2	6:R:43:PRO:HB2	1.63	0.62
6:S:48:LYS:CB	6:R:46:GLU:OE1	2.48	0.62
6:S:68:LEU:CD1	6:T:66:TYR:CD1	2.82	0.62
6:O:54:LEU:HD11	6:P:55:LEU:HD23	1.81	0.62
6:M:80:PHE:CZ	6:L:81:VAL:CG2	2.82	0.62
9:d:217:LEU:HD23	9:d:236:SER:OG	1.99	0.62
2:C:30:GLY:O	2:C:31:THR:N	2.26	0.62
2:A:5:ARG:O	7:p:203:LEU:HD23	2.00	0.62
2:A:237:TYR:HE1	2:A:294:LEU:HD21	1.65	0.62
4:e:19:VAL:HG11	4:e:51:ILE:HD11	1.81	0.62
8:b:69:GLU:CG	8:b:73:LYS:HE3	2.29	0.62
1:a:30:ILE:CG2	1:a:32:GLY:H	2.12	0.62
2:C:279:ARG:HH22	5:g:363:CYS:HB3	1.57	0.62
2:E:382:LYS:CB	2:E:442:THR:HG21	2.29	0.62
3:F:410:LEU:HD21	3:F:421:VAL:HG11	1.81	0.62
2:A:104:TYR:CD2	2:A:246:LEU:HD21	2.35	0.62
7:p:148:MET:H	8:b:85:LEU:CA	1.99	0.62
7:p:158:ALA:HB1	8:b:96:ARG:NE	2.14	0.62
1:a:39:VAL:CG1	1:a:133:ASP:OD2	2.48	0.62
1:a:70:ASN:HD21	8:b:57:LYS:HB2	1.65	0.62
1:a:193:ASN:HD22	1:a:227:GLN:CD	2.08	0.62
2:C:27:VAL:CB	2:C:47:GLU:HB2	2.15	0.62
3:D:426:LYS:HD3	3:D:474:PHE:HE2	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:20:LEU:HD22	3:F:92:ILE:CG1	2.29	0.62
2:A:12:ILE:CG2	8:b:141:ARG:CD	2.77	0.62
6:Q:43:PRO:CG	6:R:42:GLN:HE22	2.07	0.62
6:T:54:LEU:HD11	6:G:55:LEU:HD23	1.80	0.62
1:a:207:LEU:HD11	6:H:76:PHE:HB2	1.80	0.62
2:C:284:ARG:NH1	2:C:330:TYR:HB2	2.15	0.62
3:D:408:LEU:O	3:D:412:GLU:HB2	1.99	0.62
2:E:13:ILE:HD13	9:d:132:ILE:CG1	2.30	0.62
3:F:179:THR:O	3:F:182:ILE:HG22	2.00	0.62
2:A:6:ALA:C	7:p:204:ASP:C	2.68	0.62
2:A:75:VAL:HG11	2:A:274:MET:HE3	1.80	0.62
5:g:126:ASP:OD1	5:g:182:GLY:HA3	1.99	0.62
5:g:144:ARG:CZ	5:g:242:ILE:HD12	2.30	0.62
5:g:281:ILE:HB	6:M:41:ARG:CG	2.25	0.62
6:S:6:ALA:HB1	6:T:80:PHE:HD2	1.64	0.62
6:M:80:PHE:CE2	6:L:81:VAL:CG2	2.80	0.62
7:p:140:LEU:C	8:b:81:ALA:HB3	2.19	0.62
7:p:174:LEU:CG	8:b:114:THR:CB	2.78	0.62
2:E:237:TYR:CD2	2:E:274:MET:HE1	2.35	0.62
2:A:6:ALA:O	7:p:205:SER:C	2.39	0.62
2:A:24:VAL:CG2	8:b:179:MET:CG	2.69	0.62
2:A:413:ARG:NH1	2:A:442:THR:O	2.33	0.62
3:B:254:LEU:HD13	3:B:313:ILE:HG12	1.81	0.62
7:p:193:GLU:C	7:p:196:LYS:HG2	2.24	0.62
8:b:146:GLN:HA	8:b:149:LEU:HD12	1.81	0.62
1:a:193:ASN:HD22	1:a:227:GLN:CG	2.10	0.62
2:C:355:ARG:HH22	3:B:389:GLN:HE22	0.62	0.62
3:F:29:PRO:HD2	3:F:288:LEU:HD13	1.82	0.62
2:A:5:ARG:NE	8:b:140:VAL:CG2	2.62	0.62
3:B:100:VAL:CG1	3:B:256:MET:CE	2.76	0.62
6:N:33:GLY:HA3	6:O:31:ALA:HA	1.81	0.62
6:H:43:PRO:HB2	6:I:48:LYS:HZ2	1.64	0.62
6:K:42:GLN:HE22	6:J:43:PRO:CG	2.09	0.62
7:p:207:ILE:HD13	8:b:140:VAL:CG1	2.18	0.62
1:a:24:GLN:N	7:p:83:LEU:HD22	2.11	0.61
2:C:75:VAL:HG12	2:C:234:THR:OG1	2.00	0.61
2:A:9:ILE:HG22	7:p:207:ILE:O	2.00	0.61
2:A:385:LEU:HD23	3:B:476:LEU:HD11	1.82	0.61
2:A:420:LEU:HD23	2:A:458:LEU:HD11	1.82	0.61
6:L:31:ALA:HA	6:K:33:GLY:HA3	1.81	0.61
6:K:49:ILE:HD11	6:J:40:ALA:CB	2.26	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:123:ILE:C	8:b:64:ILE:HG12	2.22	0.61
1:a:114:LEU:O	8:b:34:LEU:O	2.17	0.61
1:a:184:LEU:CD2	1:a:188:PHE:HD2	1.98	0.61
1:a:207:LEU:CD2	6:H:76:PHE:CE2	2.82	0.61
2:C:17:ILE:HG12	9:d:148:ILE:CD1	2.29	0.61
3:D:404:ILE:HG21	5:g:259:THR:HG21	1.82	0.61
2:E:379:VAL:HG12	2:E:438:ILE:CG2	2.30	0.61
2:E:446:LEU:HD22	2:E:449:LEU:HD12	1.82	0.61
2:A:100:VAL:HG23	2:A:246:LEU:CD2	2.30	0.61
4:e:24:LEU:CD1	4:e:25:SER:O	2.48	0.61
5:g:100:LEU:HD11	5:g:105:VAL:HG21	1.82	0.61
6:S:61:GLU:O	6:S:64:THR:HG22	2.00	0.61
8:b:140:VAL:O	8:b:144:VAL:HG23	1.99	0.61
9:d:195:ALA:HB1	9:d:207:VAL:CG1	2.29	0.61
1:a:118:LYS:HZ1	1:a:126:GLU:CB	2.13	0.61
2:C:9:ILE:HA	3:B:71:ASN:OD1	1.99	0.61
3:D:100:VAL:HG13	3:D:256:MET:CE	2.29	0.61
2:A:104:TYR:HD1	2:A:122:ILE:HD13	1.63	0.61
5:g:280:PRO:C	6:N:41:ARG:HH21	2.07	0.61
6:L:48:LYS:CB	6:K:46:GLU:OE1	2.48	0.61
6:J:80:PHE:CE2	6:I:81:VAL:CG2	2.83	0.61
7:p:162:MET:O	8:b:103:ILE:HD11	1.97	0.61
7:p:218:VAL:HG11	8:b:145:PHE:HE1	1.66	0.61
9:d:224:ARG:HG2	9:d:232:LEU:HD12	1.83	0.61
2:C:5:ARG:HH12	9:d:154:ARG:NE	1.88	0.61
6:P:43:PRO:CA	6:Q:48:LYS:HZ3	2.12	0.61
7:p:123:ILE:HB	8:b:60:ILE:CD1	2.29	0.61
1:a:199:LEU:HD11	6:G:76:PHE:CE2	2.25	0.61
2:C:27:VAL:HG23	2:C:47:GLU:OE1	2.00	0.61
3:D:42:ASN:OD1	3:D:45:ASN:ND2	2.34	0.61
3:D:110:ILE:CG2	3:D:118:VAL:HG23	2.31	0.61
3:D:296:VAL:HG12	3:D:296:VAL:O	1.99	0.61
3:F:261:ARG:NH1	3:F:314:THR:O	2.33	0.61
2:A:119:ARG:HD2	8:b:124:TYR:HE1	1.64	0.61
2:A:143:VAL:HG13	2:A:162:ARG:O	2.00	0.61
3:B:30:VAL:HG22	3:B:77:VAL:HG22	1.82	0.61
3:B:47:LEU:HB2	3:B:63:CYS:HB2	1.82	0.61
6:P:46:GLU:OE1	6:Q:48:LYS:HG2	2.01	0.61
7:p:123:ILE:CG1	8:b:64:ILE:CD1	2.73	0.61
2:C:34:GLN:HE21	2:C:41:ARG:HG3	1.65	0.61
2:E:367:VAL:HG23	2:E:367:VAL:O	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:382:LYS:HD2	2:E:442:THR:HG21	1.82	0.61
3:F:456:ARG:NH2	3:F:481:ASP:OD1	2.34	0.61
2:A:8:GLU:CB	7:p:206:GLN:HG2	2.08	0.61
2:A:48:VAL:HG22	2:A:49:MET:N	2.15	0.61
6:Q:43:PRO:HB3	6:R:48:LYS:HD2	1.81	0.61
6:G:33:GLY:HA3	6:H:31:ALA:HA	1.81	0.61
6:G:46:GLU:OE1	6:H:48:LYS:HD3	2.01	0.61
9:d:152:SER:CA	9:d:153:GLU:OE1	2.48	0.61
1:a:73:GLU:HG2	8:b:56:ARG:NH1	2.16	0.61
1:a:133:ASP:OD1	1:a:133:ASP:O	2.18	0.61
2:C:55:GLU:HG3	2:C:55:GLU:O	1.99	0.61
3:B:296:VAL:O	3:B:296:VAL:HG12	1.99	0.61
7:p:185:LEU:HD13	8:b:122:GLU:HA	1.81	0.61
7:p:207:ILE:HA	8:b:144:VAL:HG21	1.80	0.61
7:p:210:LEU:O	7:p:213:ASP:HB3	1.75	0.61
4:e:119:LEU:HD13	4:e:123:ARG:CD	2.29	0.61
6:K:31:ALA:HA	6:J:33:GLY:HA3	1.80	0.61
8:b:42:ILE:HG23	8:b:46:LYS:HE3	1.82	0.61
3:D:183:MET:HE1	3:D:215:GLU:CB	2.31	0.61
2:E:39:ILE:HD13	2:E:278:LEU:HD21	1.81	0.61
2:E:42:ILE:CD1	2:E:89:VAL:HG11	2.31	0.61
2:A:5:ARG:CA	7:p:203:LEU:HD23	2.31	0.61
5:g:110:THR:HG23	5:g:296:LEU:HD13	1.81	0.61
5:g:253:GLU:O	5:g:253:GLU:HG2	1.99	0.61
2:C:16:ARG:CD	9:d:148:ILE:HG12	2.31	0.61
2:C:413:ARG:HH12	2:C:444:GLY:H	1.49	0.61
2:C:438:ILE:O	2:C:442:THR:HG23	1.99	0.61
2:A:18:GLU:HA	7:p:217:LYS:CG	2.30	0.61
2:A:164:GLN:CG	2:A:165:ARG:N	2.63	0.61
3:B:167:LYS:NZ	3:B:310:GLN:OE1	2.31	0.61
3:B:449:VAL:HG13	3:B:453:GLU:OE1	2.01	0.61
5:g:327:THR:HG23	5:g:328:ASP:N	2.15	0.61
6:S:48:LYS:CG	6:R:46:GLU:OE1	2.48	0.61
6:K:55:LEU:HD23	6:J:54:LEU:HD11	1.82	0.61
6:J:48:LYS:HZ3	6:I:43:PRO:C	2.08	0.61
1:a:47:ILE:HG13	7:p:100:LEU:CB	2.20	0.60
2:C:343:ILE:CG2	2:C:358:ILE:HD12	2.31	0.60
3:D:293:PRO:HG2	5:g:353:ILE:HG22	1.82	0.60
2:E:104:TYR:HE2	2:E:109:ILE:CD1	2.13	0.60
2:E:445:TYR:CE2	2:E:494:ILE:HG21	2.36	0.60
3:F:204:GLU:OE2	3:F:274:ASN:HB2	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:g:111:LYS:HE3	5:g:113:ARG:HG2	1.82	0.60
6:S:80:PHE:HD2	6:R:6:ALA:HB1	1.66	0.60
6:G:46:GLU:CD	6:H:48:LYS:HB3	2.25	0.60
8:b:141:ARG:NH2	9:d:247:GLN:O	2.33	0.60
9:d:177:VAL:HG11	9:d:210:LYS:CE	2.30	0.60
1:a:137:THR:CB	1:a:191:PHE:HB2	2.31	0.60
3:F:50:LYS:HD3	3:F:59:MET:HE3	1.82	0.60
2:A:12:ILE:HB	7:p:210:LEU:CG	2.30	0.60
4:e:4:ASN:HB2	4:e:18:GLU:CG	2.31	0.60
6:Q:81:VAL:HG21	6:R:80:PHE:CE2	2.35	0.60
7:p:207:ILE:HD11	8:b:140:VAL:CG1	2.28	0.60
2:C:45:LEU:O	3:D:87:ARG:NH2	2.34	0.60
2:E:9:ILE:CG2	2:E:13:ILE:HG22	2.31	0.60
5:g:269:ASP:OD1	5:g:269:ASP:O	2.18	0.60
6:M:66:TYR:CG	6:L:68:LEU:HD22	2.37	0.60
6:T:43:PRO:CG	6:G:42:GLN:HE22	2.10	0.60
1:a:39:VAL:CG2	1:a:133:ASP:CG	2.71	0.60
1:a:53:SER:CA	1:a:56:ILE:HG22	2.32	0.60
2:C:479:THR:HG22	2:C:481:THR:HB	1.84	0.60
5:g:118:VAL:CG1	5:g:148:LEU:HD11	2.18	0.60
6:O:46:GLU:OE1	6:P:48:LYS:HD3	2.02	0.60
6:H:54:LEU:HD11	6:I:55:LEU:HD23	1.82	0.60
7:p:218:VAL:HG11	8:b:145:PHE:CE1	2.36	0.60
9:d:175:THR:O	9:d:176:GLU:OE1	2.18	0.60
1:a:122:LEU:HG	8:b:23:ASN:O	2.02	0.60
2:C:16:ARG:CG	9:d:148:ILE:HG12	2.31	0.60
2:C:130:ILE:HG23	2:C:241:TYR:HB3	1.82	0.60
2:C:202:LYS:NZ	3:B:347:ASP:OD1	2.33	0.60
3:D:407:ILE:HG22	3:D:408:LEU:HD23	1.83	0.60
2:E:7:ASP:HB3	9:d:101:LYS:HG3	1.82	0.60
2:E:432:GLU:O	2:E:435:VAL:CG1	2.46	0.60
2:A:24:VAL:C	8:b:179:MET:CE	2.73	0.60
4:e:110:ARG:HH21	5:g:201:LEU:HD13	1.66	0.60
5:g:231:LEU:HD21	5:g:300:LEU:HD12	1.83	0.60
7:p:129:GLY:O	8:b:71:ARG:HB2	2.02	0.60
7:p:147:VAL:HG22	8:b:85:LEU:C	2.27	0.60
1:a:74:TYR:CB	8:b:53:LEU:HD23	2.21	0.60
2:A:5:ARG:HD3	8:b:136:ALA:HB1	1.83	0.60
2:A:98:ILE:HD12	2:A:242:THR:HG23	1.82	0.60
6:G:54:LEU:HD11	6:H:55:LEU:CD2	2.31	0.60
6:J:48:LYS:HZ2	6:I:43:PRO:HB2	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:211:SER:O	8:b:148:ALA:CB	2.48	0.60
1:a:114:LEU:CD1	8:b:38:LEU:N	2.65	0.60
2:C:260:ILE:HD13	2:C:317:LEU:HB2	1.83	0.60
2:E:39:ILE:HG23	2:E:39:ILE:O	2.02	0.60
2:A:9:ILE:HG21	7:p:207:ILE:CA	2.19	0.60
2:A:237:TYR:CE1	2:A:294:LEU:CD2	2.81	0.60
2:A:389:GLN:OE1	2:A:389:GLN:HA	2.00	0.60
3:B:421:VAL:O	3:B:425:ARG:HG2	2.02	0.60
4:e:4:ASN:CB	4:e:18:GLU:CD	2.75	0.60
6:S:46:GLU:OE1	6:T:48:LYS:HG2	2.02	0.60
7:p:151:ALA:CB	8:b:89:GLU:C	2.74	0.60
7:p:174:LEU:CD2	8:b:114:THR:CG2	2.72	0.60
8:b:82:ARG:HG3	8:b:85:LEU:HD21	0.71	0.60
1:a:36:HIS:CE1	7:p:89:THR:HG23	2.31	0.60
1:a:47:ILE:HD11	7:p:100:LEU:CG	0.32	0.60
2:C:16:ARG:HG2	9:d:148:ILE:CG1	2.30	0.60
2:C:157:MET:SD	2:C:387:LEU:HD12	2.42	0.60
3:F:134:ARG:NE	3:F:258:GLU:OE2	2.31	0.60
3:F:254:LEU:HD21	3:F:312:ARG:HB2	1.82	0.60
2:A:151:LEU:HD22	2:A:356:PRO:HG3	1.82	0.60
1:a:39:VAL:HG12	7:p:93:ILE:HG12	0.60	0.60
1:a:165:ILE:HG21	1:a:169:PRO:C	2.27	0.60
2:C:282:PRO:HB2	5:g:356:ILE:HG21	1.84	0.60
2:A:17:ILE:CD1	7:p:215:VAL:C	2.74	0.60
3:B:336:ASP:HB3	3:B:339:PRO:HD2	1.84	0.60
6:O:33:GLY:HA3	6:P:31:ALA:HA	1.84	0.60
7:p:140:LEU:CD1	8:b:75:ILE:CG2	2.75	0.60
3:D:387:ILE:CD1	3:D:458:PHE:HB2	2.25	0.60
3:D:405:ILE:HD11	3:D:421:VAL:HG21	1.84	0.60
2:A:13:ILE:HG12	8:b:144:VAL:HG11	1.79	0.60
2:A:24:VAL:CB	8:b:179:MET:HE2	2.32	0.60
2:A:231:SER:HB2	2:A:232:PRO:HD2	1.83	0.59
3:B:179:THR:C	3:B:182:ILE:HG22	2.27	0.59
6:O:46:GLU:OE1	6:P:48:LYS:HG2	2.00	0.59
6:L:74:LEU:CD2	6:K:10:VAL:HG23	2.32	0.59
8:b:60:ILE:O	8:b:63:THR:CG2	2.47	0.59
2:C:469:LYS:CE	2:C:493:ALA:HB2	2.32	0.59
2:E:107:ARG:NH1	2:E:120:GLY:O	2.35	0.59
2:E:378:LYS:HD3	2:E:482:PHE:HB3	1.84	0.59
2:E:439:TYR:OH	2:E:491:LYS:HE2	2.02	0.59
3:F:169:GLY:HA3	3:F:346:LEU:CD1	2.29	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:385:TYR:O	3:B:389:GLN:HG2	2.02	0.59
5:g:217:PHE:O	5:g:268:ARG:HD2	2.02	0.59
6:N:10:VAL:CG2	6:O:74:LEU:HD21	2.25	0.59
6:L:80:PHE:CE2	6:K:81:VAL:HG21	2.37	0.59
2:C:17:ILE:CA	9:d:148:ILE:CD1	2.77	0.59
2:C:141:ARG:NH1	2:C:311:GLU:OE2	2.35	0.59
2:C:379:VAL:HG11	2:C:438:ILE:HB	1.84	0.59
3:D:292:MET:HE3	2:E:279:ARG:HG3	1.84	0.59
3:F:112:ASN:HB3	3:F:114:LEU:H	1.67	0.59
2:A:35:VAL:HG21	2:A:83:ILE:HG21	1.83	0.59
5:g:217:PHE:HB2	5:g:314:SER:OG	2.03	0.59
6:N:48:LYS:HD2	6:M:43:PRO:HB3	1.84	0.59
6:Q:43:PRO:HB2	6:R:48:LYS:HZ2	1.67	0.59
7:p:129:GLY:O	8:b:71:ARG:CB	2.50	0.59
7:p:214:ILE:HG13	7:p:215:VAL:H	1.64	0.59
1:a:115:LEU:H	8:b:34:LEU:CD2	2.09	0.59
1:a:212:VAL:N	1:a:213:PRO:CD	2.64	0.59
2:E:373:ILE:O	2:E:377:LYS:HG3	2.02	0.59
6:J:48:LYS:HZ2	6:I:43:PRO:CB	2.14	0.59
7:p:210:LEU:HD23	8:b:144:VAL:HG21	1.82	0.59
1:a:133:ASP:C	1:a:191:PHE:HE1	2.10	0.59
2:C:14:ARG:HB2	9:d:85:VAL:HG23	1.83	0.59
2:C:344:PHE:CE2	2:C:362:ILE:HG22	2.28	0.59
2:E:401:SER:CB	5:g:221:VAL:HG21	2.31	0.59
2:E:469:LYS:HZ3	2:E:492:GLU:CB	2.13	0.59
3:F:387:ILE:HD12	3:F:459:GLN:HG3	1.85	0.59
3:F:408:LEU:HD13	3:F:412:GLU:HG3	1.84	0.59
2:A:9:ILE:CG1	7:p:210:LEU:HD22	2.28	0.59
4:e:110:ARG:HD2	5:g:206:GLU:OE2	2.03	0.59
6:N:43:PRO:HB2	6:O:48:LYS:HZ2	1.67	0.59
7:p:147:VAL:C	8:b:85:LEU:HA	2.22	0.59
2:E:104:TYR:CE2	2:E:109:ILE:HD12	2.37	0.59
2:E:106:GLY:HA2	2:E:219:MET:HG3	1.83	0.59
3:F:221:VAL:HG13	3:F:232:VAL:HG23	1.84	0.59
2:A:13:ILE:HG12	7:p:210:LEU:CB	2.29	0.59
2:A:17:ILE:HB	7:p:214:ILE:CA	2.33	0.59
4:e:60:LEU:HD12	4:e:60:LEU:C	2.22	0.59
6:S:48:LYS:HZ3	6:R:43:PRO:C	2.10	0.59
6:L:74:LEU:HD22	6:K:10:VAL:CG2	2.32	0.59
7:p:140:LEU:HD13	8:b:79:GLU:HG3	0.60	0.59
7:p:179:LYS:O	7:p:179:LYS:HD3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:d:75:ALA:CB	9:d:160:GLU:HG2	2.33	0.59
1:a:33:PHE:CD1	7:p:88:LEU:HD13	2.36	0.59
1:a:73:GLU:CG	8:b:56:ARG:NH1	2.66	0.59
3:D:50:LYS:HD2	3:D:90:GLU:OE2	2.03	0.59
2:E:416:ARG:HD3	2:E:446:LEU:O	2.03	0.59
3:F:411:ASP:HB3	5:g:131:GLY:O	2.02	0.59
2:A:12:ILE:HG13	7:p:206:GLN:NE2	2.15	0.59
2:A:104:TYR:CE1	2:A:122:ILE:CD1	2.86	0.59
4:e:34:LEU:HD12	6:L:42:GLN:HE22	1.66	0.59
4:e:60:LEU:HB2	4:e:82:GLU:O	2.03	0.59
5:g:253:GLU:HA	5:g:270:MET:HA	1.84	0.59
6:S:31:ALA:HA	6:R:33:GLY:HA3	1.84	0.59
7:p:158:ALA:CB	8:b:96:ARG:HG3	2.32	0.59
8:b:128:THR:O	8:b:132:GLU:HG2	2.02	0.59
9:d:180:VAL:HG13	9:d:223:ILE:HG22	1.85	0.59
1:a:24:GLN:HB2	7:p:83:LEU:HB2	1.85	0.59
1:a:24:GLN:CB	7:p:83:LEU:CG	2.51	0.59
1:a:27:TYR:HB2	8:b:22:PHE:HE1	1.66	0.59
1:a:47:ILE:HD11	7:p:100:LEU:HG	0.83	0.59
2:A:9:ILE:HD13	2:A:12:ILE:HD12	1.83	0.59
2:A:134:ALA:HB3	3:B:240:ASN:HD22	1.67	0.59
6:M:48:LYS:HG2	6:L:46:GLU:OE1	2.00	0.59
7:p:174:LEU:HD23	8:b:114:THR:HG21	1.82	0.59
1:a:64:ILE:HG22	8:b:57:LYS:CD	2.32	0.59
1:a:86:GLN:HA	1:a:86:GLN:HE21	1.67	0.59
1:a:118:LYS:HZ2	1:a:126:GLU:HB2	1.68	0.59
2:C:16:ARG:HD2	9:d:148:ILE:HG23	1.83	0.59
2:E:495:GLN:OE1	2:E:495:GLN:HA	2.03	0.59
3:F:216:MET:CE	3:F:232:VAL:HG11	2.32	0.59
3:F:243:PRO:HB3	3:F:284:GLU:OE1	2.03	0.59
3:F:272:ILE:HG21	3:F:275:ILE:CG2	2.33	0.59
2:A:17:ILE:CG2	7:p:217:LYS:N	2.66	0.59
2:A:164:GLN:CG	2:A:165:ARG:H	2.15	0.59
7:p:122:SER:O	7:p:126:GLN:HG2	2.02	0.59
7:p:151:ALA:HB1	8:b:89:GLU:CA	2.26	0.59
7:p:170:VAL:CG1	8:b:107:LYS:O	2.45	0.59
9:d:87:ASP:HB2	9:d:172:ILE:CD1	2.33	0.59
1:a:111:SER:O	8:b:34:LEU:HD21	2.03	0.59
1:a:120:ILE:C	8:b:26:ILE:HA	2.26	0.59
2:C:157:MET:HG2	2:C:384:LYS:HG2	1.84	0.59
2:C:183:THR:O	2:C:187:GLN:OE1	2.21	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:383:LEU:CD1	2:C:417:LEU:HD22	2.33	0.59
3:D:453:GLU:OE1	3:D:456:ARG:NH2	2.25	0.59
3:F:453:GLU:OE1	3:F:453:GLU:HA	2.03	0.59
2:A:4:ILE:HG23	7:p:202:SER:HB2	1.84	0.59
2:A:22:ARG:HG2	2:A:22:ARG:O	2.03	0.59
7:p:137:VAL:CB	8:b:76:GLU:N	2.32	0.59
7:p:155:ILE:HG21	8:b:95:PHE:CB	2.32	0.59
1:a:114:LEU:HB2	8:b:38:LEU:CD1	2.31	0.58
2:C:104:TYR:CE1	2:C:122:ILE:HG21	2.38	0.58
3:F:425:ARG:HB3	3:F:429:ARG:HH12	1.67	0.58
2:A:4:ILE:CA	7:p:202:SER:OG	2.38	0.58
5:g:227:ILE:HG23	5:g:242:ILE:HG12	1.85	0.58
6:L:48:LYS:HD2	6:K:43:PRO:HB3	1.85	0.58
6:J:74:LEU:HD21	6:I:75:LEU:HD21	1.85	0.58
9:d:91:THR:OG1	9:d:141:HIS:HE1	1.86	0.58
3:F:148:ILE:HD12	3:F:380:VAL:HG12	1.84	0.58
3:F:216:MET:HE3	3:F:221:VAL:HG11	1.85	0.58
3:F:272:ILE:HG21	3:F:275:ILE:HG22	1.85	0.58
2:A:104:TYR:CE2	2:A:246:LEU:HD21	2.37	0.58
3:B:102:VAL:HG23	3:B:128:THR:CG2	2.33	0.58
6:T:5:ILE:H	6:T:5:ILE:HD12	1.68	0.58
6:G:43:PRO:C	6:H:48:LYS:HZ3	2.12	0.58
6:J:5:ILE:HD12	6:J:5:ILE:H	1.68	0.58
9:d:129:LEU:HD22	9:d:150:ILE:HD12	1.85	0.58
1:a:39:VAL:CG1	7:p:93:ILE:CB	2.81	0.58
1:a:53:SER:HA	1:a:56:ILE:CG2	2.34	0.58
2:E:359:ASN:HD22	2:E:362:ILE:HD12	1.64	0.58
2:A:17:ILE:HD13	7:p:216:LYS:N	2.19	0.58
4:e:100:GLU:CG	4:e:119:LEU:HD21	2.33	0.58
5:g:103:GLU:HG2	6:R:41:ARG:HH21	1.66	0.58
6:S:5:ILE:H	6:S:5:ILE:HD12	1.69	0.58
6:S:48:LYS:HZ3	6:R:43:PRO:HB3	1.64	0.58
8:b:145:PHE:CD1	9:d:247:GLN:OE1	2.55	0.58
1:a:114:LEU:HB3	8:b:38:LEU:N	2.19	0.58
2:C:489:LEU:HD23	2:C:489:LEU:C	2.27	0.58
5:g:229:THR:HG22	5:g:240:CYS:O	2.04	0.58
6:N:32:ALA:HA	6:N:53:LEU:HD11	1.85	0.58
6:O:5:ILE:H	6:O:5:ILE:HD12	1.68	0.58
1:a:132:ASN:O	1:a:191:PHE:HE1	1.87	0.58
2:C:42:ILE:HD11	2:C:56:PHE:HZ	1.61	0.58
2:E:45:LEU:O	3:F:87:ARG:NH2	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:65:LEU:HD12	2:E:75:VAL:HG21	1.83	0.58
3:B:401:LEU:HD23	3:B:404:ILE:HD11	1.84	0.58
6:N:5:ILE:H	6:N:5:ILE:HD12	1.68	0.58
6:N:48:LYS:HZ2	6:M:43:PRO:HB2	1.69	0.58
6:M:32:ALA:HA	6:M:53:LEU:HD11	1.85	0.58
6:L:32:ALA:HA	6:L:53:LEU:HD11	1.85	0.58
7:p:152:ARG:H	8:b:88:VAL:HG12	1.67	0.58
7:p:214:ILE:HD13	8:b:145:PHE:HA	1.85	0.58
2:C:465:VAL:HG22	2:C:493:ALA:HB1	1.86	0.58
3:F:410:LEU:HD23	3:F:413:LEU:CD1	2.33	0.58
2:A:394:GLU:O	2:A:398:GLN:NE2	2.35	0.58
3:B:22:ARG:NH1	3:B:88:GLY:O	2.36	0.58
3:B:407:ILE:HG22	3:B:408:LEU:HD23	1.85	0.58
3:B:427:ILE:HD11	3:B:462:LEU:HD21	1.85	0.58
4:e:51:ILE:HG23	4:e:51:ILE:O	2.03	0.58
4:e:96:LEU:HD13	4:e:123:ARG:CA	2.33	0.58
6:O:43:PRO:HB3	6:P:48:LYS:HD2	1.84	0.58
6:M:5:ILE:HD12	6:M:5:ILE:H	1.68	0.58
6:K:32:ALA:HA	6:K:53:LEU:HD11	1.85	0.58
7:p:174:LEU:HD12	8:b:111:ILE:CA	2.32	0.58
8:b:82:ARG:HA	8:b:85:LEU:CG	2.34	0.58
9:d:186:LEU:CD1	9:d:191:LEU:CD2	2.77	0.58
2:A:9:ILE:HD12	7:p:210:LEU:HD21	1.71	0.58
2:A:392:GLU:OE1	3:B:429:ARG:NH2	2.36	0.58
6:H:5:ILE:H	6:H:5:ILE:HD12	1.68	0.58
7:p:174:LEU:HD11	8:b:110:LEU:O	2.02	0.58
1:a:24:GLN:CB	7:p:83:LEU:HD13	2.34	0.58
1:a:54:ALA:O	1:a:58:VAL:HG23	2.04	0.58
1:a:144:THR:HG21	1:a:186:LEU:HD21	1.84	0.58
2:C:9:ILE:O	2:C:9:ILE:HG12	2.03	0.58
2:E:29:THR:CA	2:E:89:VAL:O	2.50	0.58
2:A:432:GLU:CG	2:A:476:ILE:HG21	2.26	0.58
6:R:5:ILE:HD12	6:R:5:ILE:H	1.69	0.58
7:p:147:VAL:C	8:b:85:LEU:CA	2.77	0.58
7:p:148:MET:HB3	8:b:88:VAL:HG21	0.58	0.58
7:p:158:ALA:CB	8:b:96:ARG:HE	2.17	0.58
7:p:170:VAL:N	8:b:107:LYS:CE	2.44	0.58
1:a:165:ILE:HG21	1:a:169:PRO:CA	2.34	0.58
2:E:157:MET:HA	2:E:384:LYS:CE	2.34	0.58
2:E:362:ILE:CG2	2:E:362:ILE:O	2.52	0.58
2:E:419:GLU:OE2	2:E:419:GLU:HA	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:46:ILE:HG22	4:e:63:MET:O	2.03	0.58
6:T:43:PRO:CB	6:G:48:LYS:HZ2	2.10	0.58
7:p:199:THR:HG23	7:p:200:ILE:N	2.19	0.58
8:b:88:VAL:O	8:b:89:GLU:C	2.46	0.58
8:b:145:PHE:CD2	8:b:149:LEU:CD1	2.87	0.58
1:a:24:GLN:CB	7:p:83:LEU:HB2	2.34	0.58
2:C:17:ILE:N	9:d:148:ILE:HD11	2.19	0.58
2:C:284:ARG:NH1	2:C:330:TYR:CD1	2.66	0.58
2:E:419:GLU:OE2	2:E:422:LYS:CE	2.52	0.58
2:E:469:LYS:NZ	2:E:493:ALA:N	2.52	0.58
2:A:13:ILE:HG21	7:p:211:SER:CA	2.34	0.58
6:O:32:ALA:HA	6:O:53:LEU:HD11	1.86	0.58
6:P:5:ILE:H	6:P:5:ILE:HD12	1.68	0.58
6:K:5:ILE:H	6:K:5:ILE:HD12	1.68	0.58
7:p:159:LEU:HD22	8:b:95:PHE:CE1	2.33	0.58
7:p:184:GLU:OE2	8:b:122:GLU:OE2	2.22	0.58
2:C:16:ARG:HD2	9:d:148:ILE:CG2	2.33	0.57
3:F:412:GLU:CD	5:g:129:LEU:HA	2.28	0.57
2:A:17:ILE:HB	7:p:218:VAL:HG13	1.85	0.57
2:A:170:GLY:HA3	2:A:174:THR:HG21	1.86	0.57
6:S:55:LEU:HD23	6:R:54:LEU:HD11	1.86	0.57
6:N:43:PRO:CA	6:O:48:LYS:HZ3	2.15	0.57
6:J:32:ALA:HA	6:J:53:LEU:HD11	1.85	0.57
6:J:74:LEU:HD21	6:I:10:VAL:CG2	2.26	0.57
7:p:207:ILE:O	8:b:144:VAL:CG1	2.51	0.57
8:b:82:ARG:CB	8:b:85:LEU:CD2	2.80	0.57
1:a:40:LEU:CB	7:p:96:GLU:OE2	2.45	0.57
1:a:165:ILE:HG21	1:a:169:PRO:HA	1.86	0.57
2:C:159:PRO:HB2	2:C:371:ALA:HB3	1.86	0.57
3:D:487:ALA:O	3:D:491:GLU:HG3	2.04	0.57
2:E:190:GLN:OE1	2:E:190:GLN:N	2.23	0.57
2:A:5:ARG:CD	8:b:140:VAL:HG21	2.34	0.57
2:A:247:ALA:HB3	2:A:314:MET:HE3	1.86	0.57
1:a:180:PHE:O	1:a:183:PRO:HD2	2.04	0.57
3:D:185:LEU:HD13	3:D:324:ILE:HD13	1.86	0.57
3:F:384:HIS:O	3:F:387:ILE:HG22	2.04	0.57
3:B:144:THR:HG22	3:B:144:THR:O	2.04	0.57
6:P:32:ALA:HA	6:P:53:LEU:HD11	1.86	0.57
6:Q:5:ILE:H	6:Q:5:ILE:HD12	1.68	0.57
7:p:185:LEU:CD2	8:b:121:PHE:HE2	1.89	0.57
9:d:177:VAL:CG1	9:d:210:LYS:CD	2.83	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:69:GLN:HG2	7:p:116:MET:HE1	1.86	0.57
2:C:5:ARG:HD3	2:C:70:ASN:ND2	2.15	0.57
2:E:9:ILE:HD12	2:E:9:ILE:N	2.20	0.57
2:A:4:ILE:CA	7:p:199:THR:HA	2.34	0.57
2:A:292:PHE:HE1	3:B:246:ARG:NH1	2.01	0.57
6:S:54:LEU:HD11	6:T:55:LEU:HD23	1.85	0.57
6:N:46:GLU:OE1	6:O:48:LYS:HD3	2.04	0.57
6:N:81:VAL:CG2	6:O:80:PHE:CZ	2.88	0.57
6:T:32:ALA:HA	6:T:53:LEU:HD11	1.86	0.57
1:a:33:PHE:HB3	7:p:88:LEU:HD12	1.86	0.57
1:a:103:LEU:CG	7:p:109:TYR:OH	2.52	0.57
1:a:134:ILE:HG22	1:a:191:PHE:CZ	2.14	0.57
2:C:282:PRO:CG	5:g:356:ILE:CG2	2.82	0.57
2:E:326:ASP:CA	5:g:343:ARG:NH2	2.68	0.57
5:g:167:TYR:OH	5:g:171:ARG:NH2	2.38	0.57
5:g:281:ILE:HG21	6:M:41:ARG:CA	2.23	0.57
6:S:32:ALA:HA	6:S:53:LEU:HD11	1.86	0.57
6:Q:32:ALA:HA	6:Q:53:LEU:HD11	1.86	0.57
6:I:32:ALA:HA	6:I:53:LEU:HD11	1.85	0.57
7:p:144:ALA:CB	8:b:83:ALA:N	2.67	0.57
7:p:174:LEU:CG	8:b:114:THR:HB	2.33	0.57
2:C:4:ILE:N	9:d:74:THR:HG22	2.16	0.57
2:E:131:GLU:OE2	2:E:297:ARG:NH2	2.37	0.57
3:F:20:LEU:HD12	3:F:90:GLU:OE2	1.92	0.57
2:A:5:ARG:C	7:p:203:LEU:HG	2.30	0.57
4:e:22:ILE:HG22	4:e:51:ILE:CD1	2.34	0.57
4:e:96:LEU:CD1	4:e:123:ARG:CG	2.80	0.57
5:g:229:THR:O	5:g:229:THR:CG2	2.50	0.57
6:P:54:LEU:HD11	6:Q:55:LEU:HD23	1.85	0.57
6:R:32:ALA:HA	6:R:53:LEU:HD11	1.86	0.57
6:G:32:ALA:HA	6:G:53:LEU:HD11	1.86	0.57
7:p:144:ALA:HB1	8:b:84:ARG:N	2.19	0.57
7:p:204:ASP:O	7:p:207:ILE:HB	2.04	0.57
1:a:172:LEU:N	1:a:173:PRO:HD2	2.18	0.57
2:A:5:ARG:O	7:p:203:LEU:CG	2.52	0.57
5:g:121:MET:CE	5:g:160:ILE:HD11	2.33	0.57
6:P:43:PRO:CB	6:Q:48:LYS:HZ2	2.14	0.57
6:G:77:ALA:HB2	7:p:83:LEU:CD1	2.32	0.57
6:H:32:ALA:HA	6:H:53:LEU:HD11	1.86	0.57
1:a:47:ILE:HD12	7:p:100:LEU:HG	1.42	0.57
2:C:279:ARG:CZ	5:g:363:CYS:HB3	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:216:ARG:HG3	2:E:216:ARG:HH21	1.70	0.57
2:A:181:THR:HG23	2:A:213:PHE:HE1	1.70	0.57
5:g:89:LEU:HD21	5:g:299:TYR:HA	1.86	0.57
5:g:280:PRO:HG2	6:N:42:GLN:NE2	2.20	0.57
6:P:43:PRO:CG	6:Q:42:GLN:HE22	2.12	0.57
6:Q:46:GLU:OE1	6:R:48:LYS:HG2	2.05	0.57
6:J:80:PHE:CZ	6:I:81:VAL:CG2	2.87	0.57
7:p:210:LEU:CB	8:b:144:VAL:HG11	2.33	0.57
1:a:69:GLN:HE21	7:p:116:MET:HE1	1.70	0.57
2:E:9:ILE:HG22	2:E:14:ARG:HG3	1.86	0.57
2:A:5:ARG:C	7:p:203:LEU:CG	2.78	0.57
2:A:9:ILE:HG21	8:b:144:VAL:HG21	0.58	0.57
2:A:169:ILE:HD11	2:A:322:THR:HG21	1.87	0.57
6:G:5:ILE:H	6:G:5:ILE:HD12	1.68	0.57
6:L:5:ILE:H	6:L:5:ILE:HD12	1.68	0.57
7:p:155:ILE:HG22	8:b:95:PHE:CG	2.40	0.57
8:b:160:LEU:CG	8:b:164:LEU:HB3	2.16	0.57
1:a:54:ALA:HA	7:p:112:LEU:HD13	1.86	0.57
2:C:324:ALA:HB1	5:g:45:ARG:HD3	1.86	0.57
3:D:336:ASP:OD1	3:D:337:PRO:CD	2.52	0.57
3:D:385:TYR:HE1	3:D:389:GLN:HE21	1.36	0.57
2:E:435:VAL:HG13	2:E:436:MET:N	2.19	0.57
3:F:412:GLU:CD	5:g:129:LEU:HD23	2.30	0.57
2:A:12:ILE:N	7:p:210:LEU:CD1	2.58	0.57
2:A:24:VAL:HG12	9:d:235:MET:SD	2.45	0.57
2:A:449:LEU:HD11	2:A:454:VAL:HG22	1.86	0.57
5:g:85:PHE:HE1	5:g:302:SER:HG	1.44	0.57
6:Q:33:GLY:HA3	6:R:31:ALA:HA	1.85	0.57
6:L:48:LYS:CG	6:K:46:GLU:OE1	2.53	0.57
6:J:48:LYS:HD2	6:I:43:PRO:HB3	1.87	0.57
9:d:186:LEU:C	9:d:186:LEU:HD12	2.30	0.57
2:C:140:ARG:HE	3:D:206:THR:HG21	1.66	0.56
2:A:17:ILE:CG2	7:p:214:ILE:CA	2.83	0.56
3:B:155:VAL:HG22	3:B:431:LEU:HB3	1.86	0.56
4:e:62:LEU:HB2	4:e:78:VAL:HG21	1.87	0.56
6:N:10:VAL:HG22	6:O:74:LEU:HD22	1.85	0.56
6:J:55:LEU:HD23	6:I:54:LEU:HD11	1.86	0.56
7:p:127:LEU:HG	8:b:63:THR:O	2.03	0.56
7:p:127:LEU:HD23	8:b:67:SER:HB2	1.87	0.56
9:d:198:VAL:HA	9:d:201:ILE:HG12	1.87	0.56
1:a:70:ASN:ND2	8:b:57:LYS:HB2	2.17	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:37:ASP:HB3	2:E:277:LEU:HB3	1.87	0.56
2:E:98:ILE:O	2:E:98:ILE:HG13	2.05	0.56
3:F:50:LYS:NZ	3:F:92:ILE:HD12	2.20	0.56
3:F:79:MET:CE	3:F:113:VAL:HG11	2.35	0.56
3:B:143:ASP:OD1	3:B:315:SER:OG	2.23	0.56
3:B:313:ILE:HG22	3:B:313:ILE:O	2.04	0.56
1:a:47:ILE:CD1	7:p:100:LEU:CG	0.78	0.56
1:a:54:ALA:O	7:p:112:LEU:CD2	2.53	0.56
1:a:143:LEU:HD11	7:p:98:LEU:HD21	0.57	0.56
1:a:165:ILE:CG2	1:a:169:PRO:HA	2.35	0.56
1:a:217:MET:SD	8:b:37:VAL:HG21	2.46	0.56
2:C:20:TYR:CD2	9:d:148:ILE:HG13	2.40	0.56
3:D:50:LYS:NZ	3:D:92:ILE:HD12	2.19	0.56
3:D:101:PRO:HB2	3:D:126:THR:HG21	1.88	0.56
2:E:430:THR:CG2	2:E:432:GLU:OE1	2.53	0.56
2:E:446:LEU:HD21	2:E:457:TYR:CD2	2.40	0.56
2:E:461:LEU:HD23	2:E:461:LEU:C	2.31	0.56
3:F:169:GLY:CA	3:F:346:LEU:HD13	2.34	0.56
3:F:203:GLY:O	3:F:277:ARG:HG3	2.05	0.56
2:A:98:ILE:CD1	2:A:242:THR:HG23	2.35	0.56
2:A:104:TYR:HD2	2:A:246:LEU:CD2	2.18	0.56
6:N:62:ALA:CA	6:N:65:ILE:HG22	2.36	0.56
6:Q:62:ALA:CA	6:Q:65:ILE:HG22	2.35	0.56
6:L:74:LEU:HD21	6:K:10:VAL:HG23	1.86	0.56
6:L:80:PHE:HD2	6:K:6:ALA:HB1	1.70	0.56
6:K:62:ALA:CA	6:K:65:ILE:HG22	2.36	0.56
9:d:175:THR:HG22	9:d:206:ASN:HB3	1.86	0.56
2:E:24:VAL:HG11	9:d:119:VAL:CG2	2.35	0.56
2:E:61:ILE:HG22	2:E:77:MET:CE	2.35	0.56
2:E:77:MET:SD	2:E:238:LEU:HD22	2.46	0.56
2:A:69:SER:O	9:d:71:VAL:HG12	2.05	0.56
2:A:432:GLU:CG	2:A:476:ILE:HG23	2.33	0.56
3:B:86:THR:H	3:B:89:MET:HE2	1.70	0.56
3:B:102:VAL:HG23	3:B:128:THR:HG21	1.88	0.56
3:B:274:ASN:ND2	3:B:276:PHE:HB3	2.20	0.56
6:S:62:ALA:CA	6:S:65:ILE:HG22	2.36	0.56
6:S:74:LEU:HD21	6:R:75:LEU:HD21	1.88	0.56
6:N:55:LEU:HD23	6:M:54:LEU:HD11	1.86	0.56
6:N:81:VAL:CG2	6:O:80:PHE:CE2	2.86	0.56
6:P:62:ALA:CA	6:P:65:ILE:HG22	2.36	0.56
6:G:62:ALA:CA	6:G:65:ILE:HG22	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:33:GLY:HA3	6:I:31:ALA:HA	1.86	0.56
7:p:137:VAL:HG23	8:b:73:LYS:O	1.96	0.56
7:p:185:LEU:CB	8:b:121:PHE:HE2	2.19	0.56
2:C:16:ARG:CD	9:d:148:ILE:HG23	2.35	0.56
3:D:178:LYS:NZ	3:D:182:ILE:HD11	2.19	0.56
2:E:65:LEU:HD12	2:E:75:VAL:HG23	1.86	0.56
2:E:359:ASN:ND2	2:E:362:ILE:CD1	2.57	0.56
2:E:374:LYS:HB2	2:E:480:LYS:O	2.05	0.56
5:g:103:GLU:HG3	6:R:41:ARG:HG3	1.85	0.56
6:L:62:ALA:CA	6:L:65:ILE:HG22	2.36	0.56
6:I:62:ALA:CA	6:I:65:ILE:HG22	2.36	0.56
7:p:141:GLU:CA	8:b:81:ALA:H	2.03	0.56
7:p:219:LEU:HD12	7:p:219:LEU:C	2.31	0.56
8:b:145:PHE:HE2	8:b:149:LEU:HD11	1.62	0.56
1:a:208:VAL:HG22	1:a:209:PRO:N	2.18	0.56
1:a:208:VAL:HG23	1:a:209:PRO:HD3	1.85	0.56
2:A:13:ILE:CG1	8:b:144:VAL:CB	2.82	0.56
6:S:33:GLY:HA3	6:T:31:ALA:HA	1.86	0.56
6:N:48:LYS:HB3	6:M:46:GLU:CD	2.29	0.56
6:R:62:ALA:CA	6:R:65:ILE:HG22	2.35	0.56
6:K:42:GLN:NE2	6:J:43:PRO:CG	2.67	0.56
7:p:162:MET:CG	8:b:100:TYR:CE2	2.89	0.56
1:a:117:TRP:O	1:a:120:ILE:CG2	2.54	0.56
2:E:131:GLU:CD	2:E:297:ARG:NH2	2.64	0.56
2:E:432:GLU:C	2:E:435:VAL:HG12	2.30	0.56
3:F:150:GLU:OE2	3:F:450:GLY:HA2	2.05	0.56
2:E:16:ARG:NH1	9:d:131:GLU:OE2	2.38	0.56
2:A:490:LEU:O	2:A:494:ILE:HG13	2.06	0.56
6:Q:43:PRO:HB3	6:R:48:LYS:CD	2.36	0.56
7:p:174:LEU:CD1	8:b:114:THR:CB	2.83	0.56
7:p:196:LYS:O	7:p:199:THR:CG2	2.46	0.56
7:p:211:SER:H	8:b:144:VAL:CG1	2.10	0.56
9:d:84:ASP:O	9:d:88:VAL:HG23	2.04	0.56
1:a:64:ILE:CB	8:b:57:LYS:HE2	2.35	0.56
1:a:79:ILE:HD11	1:a:99:GLY:HA2	1.88	0.56
2:C:279:ARG:CZ	5:g:363:CYS:CB	2.83	0.56
3:D:50:LYS:HE2	3:D:92:ILE:HD11	1.45	0.56
3:D:178:LYS:HZ3	3:D:182:ILE:HD11	1.71	0.56
2:E:61:ILE:O	2:E:77:MET:HB2	2.06	0.56
2:A:5:ARG:N	7:p:203:LEU:HB3	2.21	0.56
4:e:52:ARG:HG2	4:e:57:TRP:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:58:LEU:C	4:e:58:LEU:HD12	2.31	0.56
4:e:82:GLU:OE2	5:g:189:LYS:NZ	2.35	0.56
5:g:104:ASP:OD1	5:g:104:ASP:O	2.23	0.56
5:g:202:PHE:CZ	5:g:232:PRO:HG3	2.41	0.56
5:g:251:GLU:CG	5:g:272:LYS:CG	2.81	0.56
6:M:48:LYS:NZ	6:L:43:PRO:HB2	2.21	0.56
7:p:159:LEU:HD12	7:p:159:LEU:C	2.30	0.56
1:a:54:ALA:N	7:p:108:TYR:CZ	2.45	0.56
2:C:463:THR:HG23	2:C:464:TYR:N	2.20	0.56
2:C:475:ILE:HG21	2:C:486:ALA:HB2	1.86	0.56
2:E:164:GLN:CD	2:E:367:VAL:HG22	2.31	0.56
3:F:168:ILE:HD12	3:F:324:ILE:HG12	1.87	0.56
3:F:402:GLN:HA	3:F:405:ILE:CG1	2.35	0.56
2:A:17:ILE:CB	7:p:214:ILE:C	2.75	0.56
2:A:237:TYR:CE1	2:A:294:LEU:CD1	2.88	0.56
5:g:280:PRO:HG2	6:N:42:GLN:HE22	1.71	0.56
6:S:48:LYS:HZ2	6:R:43:PRO:CB	2.14	0.56
6:N:48:LYS:HG2	6:M:46:GLU:OE1	2.06	0.56
6:M:74:LEU:HD21	6:L:75:LEU:HD21	1.87	0.56
6:H:43:PRO:HB3	6:I:48:LYS:CD	2.35	0.56
6:J:62:ALA:CA	6:J:65:ILE:HG22	2.36	0.56
1:a:64:ILE:CG2	8:b:57:LYS:CG	2.83	0.55
1:a:166:GLN:N	1:a:167:PRO:HD2	2.21	0.55
2:C:7:ASP:CG	2:C:70:ASN:CB	2.79	0.55
2:C:37:ASP:CG	3:B:291:ARG:CZ	2.78	0.55
2:C:147:LEU:HD21	2:C:258:LEU:HD13	1.88	0.55
2:C:267:GLN:NE2	2:C:294:LEU:HD21	2.21	0.55
3:D:330:PRO:HD2	3:D:339:PRO:CG	2.37	0.55
2:A:13:ILE:HG23	7:p:214:ILE:CG2	2.35	0.55
3:B:203:GLY:O	3:B:277:ARG:HG3	2.06	0.55
6:O:62:ALA:CA	6:O:65:ILE:HG22	2.36	0.55
6:M:62:ALA:CA	6:M:65:ILE:HG22	2.36	0.55
6:T:43:PRO:CG	6:G:42:GLN:NE2	2.67	0.55
7:p:185:LEU:CB	8:b:121:PHE:CE2	2.89	0.55
1:a:35:ILE:HD12	1:a:40:LEU:HD11	1.88	0.55
1:a:168:THR:HG22	1:a:170:ILE:H	1.72	0.55
1:a:234:LEU:HG	1:a:238:TYR:CE2	2.41	0.55
3:D:184:GLU:HG3	3:D:188:ASN:ND2	2.20	0.55
2:E:457:TYR:OH	2:E:498:MET:HG2	2.07	0.55
3:F:247:MET:SD	3:F:285:VAL:HG21	2.46	0.55
2:A:138:MET:SD	3:B:213:TYR:CE2	3.00	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:123:ILE:CD1	8:b:64:ILE:HD13	2.33	0.55
7:p:192:LEU:HD22	8:b:129:ILE:HG21	1.87	0.55
1:a:61:PRO:HA	7:p:119:ARG:NH1	2.18	0.55
1:a:114:LEU:O	8:b:34:LEU:C	2.50	0.55
2:C:345:LEU:CD2	2:C:358:ILE:HD13	2.37	0.55
3:D:25:GLN:HE21	3:D:27:ILE:HD12	1.70	0.55
3:D:101:PRO:HB3	3:D:126:THR:CG2	2.36	0.55
2:E:326:ASP:CG	5:g:343:ARG:NH1	2.65	0.55
2:E:401:SER:CB	5:g:221:VAL:HG11	2.36	0.55
6:S:43:PRO:CG	6:T:42:GLN:HE22	2.17	0.55
6:M:48:LYS:HZ2	6:L:43:PRO:HB2	1.72	0.55
6:H:62:ALA:CA	6:H:65:ILE:HG22	2.35	0.55
7:p:218:VAL:C	9:d:243:GLU:OE2	2.49	0.55
1:a:222:PHE:HZ	6:H:55:LEU:HD13	1.69	0.55
2:A:13:ILE:HG23	7:p:214:ILE:HG12	1.89	0.55
2:A:119:ARG:HB3	8:b:127:GLU:CG	2.36	0.55
6:T:62:ALA:CA	6:T:65:ILE:HG22	2.36	0.55
7:p:143:GLN:O	8:b:85:LEU:HD22	2.04	0.55
7:p:151:ALA:HB1	8:b:89:GLU:C	2.31	0.55
2:A:420:LEU:CD2	2:A:458:LEU:HD11	2.37	0.55
5:g:50:ARG:HG2	5:g:50:ARG:NH1	2.20	0.55
6:N:43:PRO:HB3	6:O:48:LYS:CD	2.37	0.55
6:M:48:LYS:HZ3	6:L:43:PRO:CB	2.18	0.55
6:M:48:LYS:HZ2	6:L:43:PRO:CB	2.18	0.55
2:E:109:ILE:HD11	2:E:113:ALA:HB1	1.85	0.55
2:A:7:ASP:HB2	7:p:203:LEU:HA	1.83	0.55
2:A:78:GLY:CA	2:A:232:PRO:HG3	2.34	0.55
2:A:240:PRO:HG3	2:A:267:GLN:CD	2.30	0.55
2:A:449:LEU:HD11	2:A:454:VAL:CG2	2.37	0.55
5:g:85:PHE:HE1	5:g:302:SER:OG	1.87	0.55
6:O:46:GLU:OE1	6:P:48:LYS:CD	2.54	0.55
7:p:203:LEU:HG	7:p:206:GLN:HB3	1.89	0.55
9:d:176:GLU:OE1	9:d:176:GLU:HA	2.06	0.55
1:a:40:LEU:N	7:p:93:ILE:HD13	2.22	0.55
2:C:16:ARG:HG2	9:d:148:ILE:HD11	1.88	0.55
3:B:387:ILE:HD13	3:B:455:ILE:CG2	2.15	0.55
6:H:10:VAL:CG2	6:I:74:LEU:HD21	2.30	0.55
1:a:221:LEU:HD21	8:b:37:VAL:HG13	1.83	0.55
2:C:469:LYS:HD2	2:C:493:ALA:CB	2.13	0.55
2:C:487:GLU:O	2:C:491:LYS:HG3	2.06	0.55
2:A:16:ARG:NH2	8:b:145:PHE:CB	2.51	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:195:GLY:HA3	3:B:267:ASP:O	2.07	0.55
3:B:416:GLU:OE1	3:B:416:GLU:HA	2.06	0.55
4:e:62:LEU:C	4:e:62:LEU:HD12	2.31	0.55
5:g:109:LEU:HD21	5:g:199:PHE:HD1	1.71	0.55
5:g:109:LEU:HD11	5:g:199:PHE:CD1	2.42	0.55
5:g:292:LEU:HD12	5:g:292:LEU:C	2.27	0.55
6:O:39:ILE:HG13	6:O:49:ILE:HG21	1.88	0.55
9:d:195:ALA:HB1	9:d:207:VAL:HG13	1.87	0.55
1:a:164:TYR:CE2	1:a:166:GLN:CG	2.79	0.55
1:a:207:LEU:HD11	6:H:76:PHE:HB3	1.87	0.55
2:C:156:ALA:HA	2:C:376:MET:HE2	1.89	0.55
3:B:347:ASP:O	3:B:373:THR:HG23	2.07	0.55
5:g:72:VAL:HG12	5:g:257:LEU:HD21	1.88	0.55
6:N:74:LEU:HD21	6:M:10:VAL:CG2	2.30	0.55
6:T:46:GLU:CD	6:G:48:LYS:HB3	2.30	0.55
6:K:48:LYS:HB3	6:J:46:GLU:CD	2.30	0.55
1:a:78:PHE:CD1	1:a:78:PHE:C	2.85	0.55
2:C:19:GLY:O	2:C:22:ARG:HB3	2.07	0.55
2:E:401:SER:OG	5:g:221:VAL:HG13	2.04	0.55
2:E:419:GLU:OE2	2:E:422:LYS:CD	2.55	0.55
3:F:50:LYS:HE2	3:F:92:ILE:HD12	1.89	0.55
2:A:156:ALA:HB2	2:A:438:ILE:HD11	1.88	0.55
6:M:39:ILE:HG13	6:M:49:ILE:HG21	1.89	0.55
6:K:48:LYS:HZ2	6:J:43:PRO:CB	2.16	0.55
7:p:193:GLU:HA	7:p:196:LYS:CE	2.37	0.55
7:p:214:ILE:CB	8:b:145:PHE:CE1	2.88	0.55
9:d:115:PHE:CB	9:d:155:ILE:HD11	2.27	0.55
1:a:38:GLN:HG3	1:a:39:VAL:HG23	1.89	0.54
1:a:118:LYS:HZ2	1:a:126:GLU:CB	2.20	0.54
2:C:52:GLU:HA	2:C:95:ILE:HG22	1.88	0.54
3:D:293:PRO:HG3	5:g:353:ILE:CG2	2.37	0.54
2:A:241:TYR:OH	2:A:294:LEU:HD12	2.07	0.54
2:A:488:ALA:O	2:A:492:GLU:HG3	2.06	0.54
5:g:85:PHE:C	5:g:85:PHE:CD1	2.85	0.54
5:g:114:THR:HG23	5:g:116:LYS:HG3	1.88	0.54
6:J:31:ALA:HA	6:I:33:GLY:HA3	1.88	0.54
7:p:130:VAL:O	8:b:71:ARG:CB	2.55	0.54
7:p:147:VAL:CG2	8:b:85:LEU:C	2.79	0.54
7:p:148:MET:HE2	8:b:88:VAL:HG23	1.87	0.54
7:p:174:LEU:HD12	8:b:111:ILE:N	2.22	0.54
1:a:112:GLY:CA	1:a:128:ALA:O	2.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:497:GLN:OE1	2:C:497:GLN:HA	2.05	0.54
2:E:287:TYR:HB3	2:E:291:VAL:HG21	1.89	0.54
3:F:171:PHE:HB2	3:F:351:VAL:HA	1.88	0.54
2:A:165:ARG:CD	2:A:299:LEU:O	2.49	0.54
2:A:393:LEU:C	2:A:393:LEU:HD12	2.31	0.54
6:S:40:ALA:CB	6:T:49:ILE:HD11	2.32	0.54
6:N:39:ILE:HG13	6:N:49:ILE:HG21	1.89	0.54
6:O:81:VAL:CG2	6:P:80:PHE:CZ	2.90	0.54
6:Q:39:ILE:HG13	6:Q:49:ILE:HG21	1.89	0.54
6:H:46:GLU:OE1	6:I:48:LYS:HD3	2.07	0.54
1:a:30:ILE:HG22	1:a:32:GLY:H	1.70	0.54
3:D:23:ILE:HG21	3:D:26:ILE:HD11	1.88	0.54
2:A:308:LEU:CD2	2:A:309:LEU:CD1	2.82	0.54
4:e:3:LEU:C	4:e:3:LEU:HD12	2.32	0.54
5:g:105:VAL:HG22	5:g:289:ALA:HB2	1.89	0.54
6:N:46:GLU:OE1	6:O:48:LYS:CD	2.55	0.54
6:K:74:LEU:HD21	6:J:10:VAL:CG2	2.36	0.54
7:p:128:SER:C	8:b:67:SER:OG	2.51	0.54
7:p:133:THR:O	8:b:75:ILE:HG13	2.07	0.54
7:p:214:ILE:HB	8:b:145:PHE:HE1	1.68	0.54
8:b:61:LEU:HD13	8:b:65:ARG:HD3	1.89	0.54
2:E:39:ILE:HD13	2:E:278:LEU:CD2	2.38	0.54
2:E:420:LEU:CD2	2:E:458:LEU:HD11	2.38	0.54
2:A:237:TYR:CD1	2:A:271:TYR:CB	2.84	0.54
6:S:74:LEU:HD22	6:R:10:VAL:HG22	1.88	0.54
6:P:39:ILE:HG13	6:P:49:ILE:HG21	1.89	0.54
6:Q:43:PRO:CG	6:R:42:GLN:NE2	2.68	0.54
6:Q:46:GLU:CD	6:R:48:LYS:HB3	2.31	0.54
6:G:43:PRO:HB3	6:H:48:LYS:HD2	1.89	0.54
7:p:143:GLN:HB2	8:b:82:ARG:HB2	1.90	0.54
9:d:165:PHE:C	9:d:165:PHE:CD1	2.85	0.54
9:d:172:ILE:HG23	9:d:173:THR:N	2.22	0.54
3:D:50:LYS:HD2	3:D:90:GLU:CG	2.36	0.54
2:E:105:LEU:HD21	2:E:193:ILE:CG2	2.38	0.54
2:A:6:ALA:CB	7:p:207:ILE:HG12	2.38	0.54
2:A:13:ILE:O	7:p:214:ILE:CA	2.55	0.54
2:A:237:TYR:CE1	2:A:294:LEU:HD11	2.43	0.54
9:d:176:GLU:HG3	9:d:202:THR:HG21	1.90	0.54
1:a:53:SER:O	1:a:56:ILE:HG23	2.06	0.54
1:a:114:LEU:C	8:b:34:LEU:O	2.51	0.54
1:a:115:LEU:C	8:b:34:LEU:CD2	2.75	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:355:ARG:HH22	3:B:389:GLN:CD	2.10	0.54
3:D:333:ASP:OD2	5:g:346:GLN:NE2	2.37	0.54
2:A:28:ASN:OD1	2:A:47:GLU:OE1	2.26	0.54
2:A:199:ILE:HG12	2:A:240:PRO:HD3	1.89	0.54
3:B:387:ILE:HD11	3:B:455:ILE:HG23	1.84	0.54
6:O:10:VAL:HG22	6:P:74:LEU:HD22	1.87	0.54
6:J:39:ILE:HG13	6:J:49:ILE:HG21	1.89	0.54
7:p:123:ILE:CB	8:b:60:ILE:HG12	2.35	0.54
8:b:69:GLU:HG2	8:b:73:LYS:HE3	1.89	0.54
1:a:34:GLN:HE21	7:p:87:ASN:HB2	1.73	0.54
1:a:161:PHE:CE1	1:a:163:LYS:HD2	1.99	0.54
2:E:101:SER:HB3	2:E:124:ALA:HA	1.90	0.54
2:E:251:MET:HE2	2:E:314:MET:HB2	1.90	0.54
2:E:327:VAL:HG21	2:E:344:PHE:CE1	2.41	0.54
2:A:16:ARG:CZ	8:b:141:ARG:O	2.56	0.54
5:g:202:PHE:CD1	5:g:202:PHE:C	2.86	0.54
6:S:39:ILE:HG13	6:S:49:ILE:HG21	1.89	0.54
6:R:39:ILE:HG13	6:R:49:ILE:HG21	1.89	0.54
6:L:39:ILE:HG13	6:L:49:ILE:HG21	1.89	0.54
6:K:39:ILE:HG13	6:K:49:ILE:HG21	1.89	0.54
7:p:123:ILE:HD13	8:b:64:ILE:CD1	2.33	0.54
1:a:69:GLN:HE21	7:p:116:MET:HE2	1.71	0.54
1:a:214:ILE:HG12	1:a:215:PRO:HD3	1.89	0.54
3:D:48:ILE:HD11	3:D:94:THR:HG21	1.90	0.54
3:B:112:ASN:ND2	3:B:116:GLU:CB	2.56	0.54
3:B:169:GLY:HA3	3:B:346:LEU:HD13	1.88	0.54
6:O:43:PRO:HB3	6:P:48:LYS:HZ3	1.65	0.54
6:L:55:LEU:CD2	6:K:54:LEU:HD11	2.37	0.54
6:J:20:ALA:HA	6:I:21:SER:OG	2.08	0.54
3:D:120:ASN:O	3:D:120:ASN:CG	2.51	0.54
2:E:9:ILE:HB	2:E:14:ARG:CZ	2.38	0.54
2:E:445:TYR:HD2	2:E:494:ILE:HG21	1.72	0.54
2:A:82:MET:HE2	2:A:82:MET:HA	1.90	0.54
2:A:237:TYR:CE1	2:A:271:TYR:HB2	2.42	0.54
3:B:55:ALA:HB3	3:B:57:GLN:HG2	1.89	0.54
3:B:85:LEU:HD22	3:B:89:MET:HE1	1.90	0.54
3:B:261:ARG:HD3	3:B:321:ILE:HG13	1.89	0.54
4:e:24:LEU:HD12	4:e:25:SER:O	2.08	0.54
6:P:33:GLY:HA3	6:Q:31:ALA:HA	1.89	0.54
6:G:46:GLU:OE1	6:H:48:LYS:HG2	2.08	0.54
6:H:43:PRO:CA	6:I:48:LYS:HZ3	2.19	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:275:ILE:CG2	3:D:327:VAL:HG22	2.38	0.54
3:F:472:GLN:O	3:F:486:LYS:HE2	2.07	0.54
2:A:16:ARG:HH12	8:b:141:ARG:CA	2.20	0.54
4:e:39:PRO:O	6:M:41:ARG:NH2	2.40	0.54
6:M:31:ALA:HA	6:L:33:GLY:HA3	1.90	0.54
6:H:39:ILE:HG13	6:H:49:ILE:HG21	1.89	0.54
6:J:48:LYS:HD3	6:I:46:GLU:OE1	2.08	0.54
7:p:212:ASP:OD1	7:p:215:VAL:CG1	2.55	0.54
8:b:145:PHE:CE2	8:b:149:LEU:CD1	2.77	0.54
3:D:387:ILE:HG23	3:D:388:ALA:N	2.23	0.53
2:E:450:GLU:HB2	2:E:453:GLN:CD	2.33	0.53
2:A:28:ASN:HD21	2:A:47:GLU:CG	2.21	0.53
2:A:457:TYR:HE1	2:A:497:GLN:HG3	1.73	0.53
3:B:146:LEU:HD23	3:B:163:ARG:HE	1.73	0.53
5:g:123:VAL:CG1	5:g:308:LEU:HD22	2.18	0.53
6:S:57:LEU:O	6:S:61:GLU:N	2.35	0.53
6:O:57:LEU:O	6:O:61:GLU:N	2.35	0.53
6:T:39:ILE:HG13	6:T:49:ILE:HG21	1.89	0.53
7:p:137:VAL:HA	8:b:75:ILE:C	2.23	0.53
1:a:221:LEU:CD2	8:b:37:VAL:CG1	2.63	0.53
3:D:48:ILE:CD1	3:D:94:THR:CG2	2.86	0.53
3:D:111:PHE:CZ	3:D:124:VAL:HG21	2.44	0.53
3:F:387:ILE:HG23	3:F:388:ALA:N	2.23	0.53
2:A:5:ARG:HA	7:p:203:LEU:HD23	1.88	0.53
2:A:16:ARG:CZ	8:b:145:PHE:HB2	2.35	0.53
2:A:53:LEU:HD22	2:A:61:ILE:HG22	1.89	0.53
2:A:437:THR:HG23	2:A:458:LEU:HD13	1.90	0.53
3:B:149:PHE:CE2	3:B:189:ILE:HD13	2.43	0.53
3:B:423:ARG:NH2	3:B:464:GLY:HA3	2.24	0.53
6:N:21:SER:OG	6:O:20:ALA:HA	2.08	0.53
6:N:48:LYS:HD3	6:M:46:GLU:OE1	2.08	0.53
6:G:39:ILE:HG13	6:G:49:ILE:HG21	1.89	0.53
6:L:48:LYS:CD	6:K:43:PRO:HB3	2.39	0.53
7:p:129:GLY:C	8:b:71:ARG:HE	2.15	0.53
8:b:146:GLN:O	8:b:149:LEU:HB2	2.08	0.53
8:b:160:LEU:HD21	8:b:164:LEU:HB2	1.91	0.53
1:a:61:PRO:HB2	7:p:119:ARG:HG3	1.90	0.53
2:C:104:TYR:HE1	2:C:122:ILE:HD12	1.73	0.53
2:E:169:ILE:HD11	2:E:332:PRO:HB3	1.89	0.53
2:E:416:ARG:HD2	2:E:447:ASP:HA	1.90	0.53
3:F:47:LEU:HB2	3:F:63:CYS:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:13:ILE:O	9:d:247:GLN:NE2	2.42	0.53
2:A:18:GLU:HG3	7:p:217:LYS:NZ	1.96	0.53
2:A:104:TYR:CD1	2:A:122:ILE:HG21	2.43	0.53
3:B:107:LEU:HD21	3:B:196:VAL:HG11	1.89	0.53
4:e:119:LEU:O	4:e:123:ARG:HG3	2.07	0.53
6:G:54:LEU:HD11	6:H:55:LEU:HD23	1.89	0.53
7:p:170:VAL:HG11	8:b:107:LYS:CA	2.38	0.53
8:b:160:LEU:CD1	8:b:163:GLU:CB	2.69	0.53
9:d:86:ALA:HB2	9:d:95:THR:HG21	1.89	0.53
9:d:187:GLU:N	9:d:187:GLU:OE2	2.41	0.53
1:a:33:PHE:HB3	7:p:88:LEU:HD13	1.89	0.53
2:C:479:THR:HG22	2:C:481:THR:CB	2.39	0.53
3:D:48:ILE:CD1	3:D:94:THR:HG21	2.38	0.53
3:D:79:MET:HE3	3:D:113:VAL:HG11	1.91	0.53
3:B:102:VAL:CG2	3:B:128:THR:CG2	2.86	0.53
5:g:110:THR:CG2	5:g:296:LEU:CD1	2.86	0.53
6:I:39:ILE:HG13	6:I:49:ILE:HG21	1.89	0.53
8:b:100:TYR:O	8:b:103:ILE:CG2	2.53	0.53
9:d:177:VAL:CG1	9:d:210:LYS:HE3	2.39	0.53
9:d:217:LEU:HA	9:d:237:VAL:HG23	1.89	0.53
1:a:47:ILE:HG13	7:p:100:LEU:HB2	1.91	0.53
1:a:222:PHE:CZ	6:H:55:LEU:HD11	2.40	0.53
3:D:293:PRO:HG3	5:g:353:ILE:HG23	1.91	0.53
3:F:189:ILE:HG22	3:F:269:LEU:HD11	1.91	0.53
3:F:412:GLU:OE1	5:g:129:LEU:HD23	2.09	0.53
2:A:17:ILE:HB	7:p:214:ILE:HA	1.89	0.53
3:B:149:PHE:HE2	3:B:189:ILE:HD13	1.74	0.53
3:B:243:PRO:HB2	3:B:285:VAL:HG13	1.91	0.53
6:N:31:ALA:HA	6:M:33:GLY:HA3	1.90	0.53
6:Q:10:VAL:HG22	6:R:74:LEU:HD22	1.91	0.53
6:J:48:LYS:HG2	6:I:46:GLU:OE1	2.07	0.53
7:p:158:ALA:CB	8:b:96:ARG:NE	2.71	0.53
7:p:193:GLU:HG3	7:p:196:LYS:NZ	2.21	0.53
8:b:160:LEU:HD13	8:b:163:GLU:N	2.20	0.53
3:F:411:ASP:C	3:F:418:ARG:NH2	2.67	0.53
2:A:4:ILE:HA	7:p:199:THR:C	2.34	0.53
2:A:9:ILE:HB	7:p:206:GLN:O	1.89	0.53
2:A:13:ILE:HD11	8:b:145:PHE:N	2.20	0.53
2:A:13:ILE:HA	9:d:247:GLN:NE2	2.23	0.53
2:A:43:HIS:NE2	9:d:228:GLU:OE1	2.41	0.53
2:A:432:GLU:HA	2:A:476:ILE:HD13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:19:VAL:HG21	4:e:51:ILE:CG1	2.39	0.53
5:g:124:THR:CG2	5:g:137:LEU:CD2	2.61	0.53
7:p:130:VAL:O	8:b:71:ARG:HB2	2.09	0.53
7:p:174:LEU:HG	8:b:114:THR:CB	2.37	0.53
9:d:76:SER:CA	9:d:164:GLU:HG2	2.33	0.53
1:a:50:LEU:HB2	7:p:104:LEU:HD13	1.91	0.53
3:F:259:TYR:CD1	3:F:259:TYR:C	2.85	0.53
4:e:19:VAL:C	4:e:53:LEU:HD13	2.34	0.53
6:N:48:LYS:CD	6:M:43:PRO:HB3	2.38	0.53
6:Q:10:VAL:HG22	6:R:74:LEU:CD2	2.38	0.53
7:p:137:VAL:HB	8:b:77:GLN:N	2.24	0.53
1:a:39:VAL:HG11	7:p:93:ILE:CG1	2.06	0.53
2:E:98:ILE:HG23	2:E:130:ILE:CG1	2.39	0.53
2:A:58:GLU:HG3	2:A:82:MET:HB3	1.91	0.53
2:A:195:VAL:HB	2:A:259:ILE:HG13	1.90	0.53
3:B:75:ARG:HD3	3:B:289:LEU:HD23	1.91	0.53
6:T:10:VAL:CG2	6:G:74:LEU:HD21	2.35	0.53
6:K:57:LEU:HD23	6:K:57:LEU:N	2.24	0.53
6:J:48:LYS:HB3	6:I:46:GLU:CD	2.32	0.53
7:p:123:ILE:C	8:b:64:ILE:CG1	2.82	0.53
2:C:420:LEU:CD2	2:C:458:LEU:HD11	2.39	0.53
3:D:179:THR:CG2	3:D:215:GLU:OE1	2.50	0.53
3:D:431:LEU:HD23	3:D:458:PHE:HZ	1.74	0.53
2:E:495:GLN:O	2:E:499:GLU:HG2	2.09	0.53
2:A:18:GLU:N	7:p:217:LYS:HB2	2.20	0.53
4:e:38:ALA:CB	6:L:41:ARG:CG	2.74	0.53
6:P:57:LEU:HD23	6:P:57:LEU:N	2.24	0.53
6:G:46:GLU:OE1	6:H:48:LYS:CD	2.57	0.53
8:b:181:GLU:O	8:b:182:ILE:C	2.51	0.53
9:d:152:SER:HA	9:d:153:GLU:OE1	2.09	0.53
1:a:159:GLY:O	1:a:160:TYR:CG	2.62	0.53
3:D:86:THR:H	3:D:89:MET:HE2	1.73	0.53
2:E:9:ILE:HG23	2:E:13:ILE:HG21	1.91	0.53
2:E:9:ILE:HG23	2:E:13:ILE:HG22	1.88	0.53
6:S:57:LEU:HD23	6:S:57:LEU:N	2.24	0.53
6:H:57:LEU:HD23	6:H:57:LEU:N	2.24	0.53
6:L:48:LYS:HZ3	6:K:43:PRO:C	2.17	0.53
7:p:150:ALA:O	7:p:154:GLU:CG	2.55	0.53
7:p:159:LEU:HD23	8:b:95:PHE:CE1	2.29	0.53
1:a:121:GLN:HB2	8:b:26:ILE:C	1.96	0.52
1:a:161:PHE:HZ	1:a:163:LYS:HD2	0.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:50:LYS:CE	3:F:92:ILE:HD12	2.39	0.52
3:F:251:LEU:CD2	3:F:309:LEU:CD1	2.81	0.52
2:A:5:ARG:HD2	8:b:140:VAL:HG23	1.90	0.52
2:A:17:ILE:CB	7:p:214:ILE:HA	2.39	0.52
6:N:57:LEU:N	6:N:57:LEU:HD23	2.24	0.52
6:M:57:LEU:N	6:M:57:LEU:HD23	2.24	0.52
1:a:47:ILE:CG1	7:p:100:LEU:HB2	2.38	0.52
1:a:134:ILE:O	1:a:135:ASN:C	2.51	0.52
3:F:212:LEU:HD12	3:F:212:LEU:C	2.32	0.52
4:e:100:GLU:HG2	4:e:119:LEU:HD21	1.91	0.52
7:p:179:LYS:HD3	7:p:179:LYS:C	2.33	0.52
1:a:207:LEU:HG	6:H:76:PHE:CE2	2.34	0.52
2:C:479:THR:CG2	2:C:481:THR:HB	2.39	0.52
3:B:107:LEU:HD21	3:B:196:VAL:CG1	2.39	0.52
4:e:8:LEU:HD13	5:g:85:PHE:HB2	1.91	0.52
4:e:24:LEU:HD13	4:e:25:SER:O	2.08	0.52
6:N:75:LEU:HD21	6:O:74:LEU:HD21	1.90	0.52
6:Q:57:LEU:N	6:Q:57:LEU:HD23	2.24	0.52
6:G:21:SER:OG	6:H:20:ALA:HA	2.10	0.52
6:G:77:ALA:CB	7:p:83:LEU:HD12	2.33	0.52
9:d:175:THR:O	9:d:176:GLU:CD	2.52	0.52
2:C:5:ARG:CD	2:C:70:ASN:ND2	2.68	0.52
2:E:165:ARG:HB3	2:E:339:THR:HG23	1.92	0.52
2:E:383:LEU:HD22	2:E:438:ILE:CD1	2.22	0.52
6:Q:54:LEU:HD11	6:R:55:LEU:HD23	1.90	0.52
6:M:70:VAL:HG13	6:L:75:LEU:HD11	1.91	0.52
6:J:48:LYS:CD	6:I:43:PRO:HB3	2.39	0.52
6:J:57:LEU:N	6:J:57:LEU:HD23	2.24	0.52
7:p:144:ALA:HB2	8:b:83:ALA:N	2.16	0.52
9:d:217:LEU:HA	9:d:237:VAL:CG2	2.40	0.52
9:d:224:ARG:CD	9:d:232:LEU:HD12	2.39	0.52
1:a:116:PRO:HB3	8:b:31:LEU:C	2.34	0.52
1:a:118:LYS:H	8:b:31:LEU:HB3	1.74	0.52
3:F:411:ASP:N	3:F:418:ARG:NH2	2.57	0.52
2:A:56:PHE:CE1	2:A:76:LEU:CD2	2.92	0.52
2:A:237:TYR:CZ	2:A:294:LEU:CD1	2.92	0.52
2:A:292:PHE:CE1	3:B:246:ARG:NH1	2.76	0.52
5:g:83:ARG:N	5:g:84:PRO:HD2	2.25	0.52
5:g:169:ILE:HG23	5:g:170:ARG:N	2.25	0.52
6:I:57:LEU:O	6:I:61:GLU:N	2.35	0.52
7:p:147:VAL:HG22	8:b:85:LEU:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:114:LEU:HA	8:b:34:LEU:CA	2.39	0.52
2:E:7:ASP:HB2	9:d:104:ARG:HH11	1.75	0.52
3:F:113:VAL:HG21	3:F:245:ALA:HB1	1.90	0.52
3:F:292:MET:HE1	2:A:282:PRO:HD3	1.91	0.52
2:A:100:VAL:CG2	2:A:246:LEU:HD23	2.36	0.52
2:A:308:LEU:HD22	2:A:309:LEU:HD12	1.90	0.52
4:e:18:GLU:O	4:e:53:LEU:HD22	2.09	0.52
6:Q:43:PRO:HB3	6:R:48:LYS:HZ3	1.68	0.52
6:L:57:LEU:N	6:L:57:LEU:HD23	2.24	0.52
6:L:57:LEU:O	6:L:61:GLU:N	2.35	0.52
7:p:193:GLU:HA	7:p:196:LYS:HG2	1.90	0.52
1:a:36:HIS:H	7:p:89:THR:CB	2.21	0.52
2:C:169:ILE:HG22	2:C:344:PHE:CD1	2.17	0.52
3:D:270:LEU:O	3:D:323:SER:HA	2.09	0.52
2:E:382:LYS:HB3	2:E:442:THR:CG2	2.38	0.52
2:E:412:ALA:HB1	2:E:416:ARG:HH12	1.74	0.52
2:A:14:ARG:HH22	7:p:216:LYS:HE3	1.75	0.52
6:S:20:ALA:HA	6:R:21:SER:OG	2.10	0.52
6:P:46:GLU:CD	6:Q:48:LYS:HB3	2.34	0.52
6:G:57:LEU:N	6:G:57:LEU:HD23	2.24	0.52
6:H:6:ALA:HB1	6:I:80:PHE:CD2	2.39	0.52
7:p:101:MET:O	7:p:105:ASP:HB2	2.10	0.52
7:p:141:GLU:HG2	8:b:80:LYS:HB2	1.91	0.52
1:a:26:PHE:CD1	1:a:36:HIS:CG	2.86	0.52
1:a:27:TYR:OH	1:a:122:LEU:CD1	2.58	0.52
1:a:58:VAL:O	7:p:115:PHE:CE1	2.63	0.52
2:C:67:LEU:O	3:D:25:GLN:HB2	2.10	0.52
2:A:28:ASN:HD21	2:A:47:GLU:HB3	1.75	0.52
3:B:53:ASP:CB	3:B:59:MET:CE	2.86	0.52
3:B:118:VAL:O	3:B:118:VAL:HG12	2.08	0.52
3:B:412:GLU:OE1	5:g:64:MET:HE3	2.10	0.52
7:p:151:ALA:CA	8:b:89:GLU:HA	2.35	0.52
7:p:171:GLU:HA	8:b:110:LEU:CD2	2.40	0.52
8:b:111:ILE:HG13	8:b:112:ASN:N	2.24	0.52
9:d:92:LEU:HD21	9:d:172:ILE:HD13	1.90	0.52
2:C:284:ARG:NH1	2:C:330:TYR:CB	2.72	0.52
2:A:5:ARG:CD	8:b:140:VAL:HG23	2.38	0.52
3:B:403:ASP:OD2	5:g:53:SER:CB	2.58	0.52
6:O:81:VAL:CG2	6:P:80:PHE:CE2	2.92	0.52
6:R:57:LEU:N	6:R:57:LEU:HD23	2.24	0.52
6:I:57:LEU:N	6:I:57:LEU:HD23	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:134:ILE:HD11	7:p:90:LEU:HD11	1.87	0.52
3:D:274:ASN:OD1	3:D:277:ARG:HG3	2.10	0.52
3:D:384:HIS:C	3:D:384:HIS:CD2	2.87	0.52
3:F:306:MET:HE3	3:F:310:GLN:CG	2.40	0.52
2:A:9:ILE:HG23	8:b:144:VAL:CB	2.34	0.52
3:B:401:LEU:HD23	3:B:404:ILE:CD1	2.39	0.52
4:e:22:ILE:HA	4:e:51:ILE:HA	1.92	0.52
5:g:237:GLY:O	5:g:249:ALA:HB2	2.10	0.52
5:g:281:ILE:CD1	6:M:41:ARG:HG2	2.23	0.52
6:Q:43:PRO:CA	6:R:48:LYS:HZ3	2.23	0.52
6:M:74:LEU:HD21	6:L:10:VAL:CG2	2.26	0.52
6:T:57:LEU:N	6:T:57:LEU:HD23	2.24	0.52
6:L:48:LYS:HZ2	6:K:43:PRO:HB2	1.74	0.52
7:p:144:ALA:HA	8:b:82:ARG:C	2.14	0.52
1:a:58:VAL:O	7:p:115:PHE:CD1	2.63	0.51
2:C:16:ARG:HD3	9:d:148:ILE:HG12	1.91	0.51
3:D:50:LYS:HE2	3:D:92:ILE:CG1	2.34	0.51
2:E:67:LEU:HD12	3:F:26:ILE:HD13	1.92	0.51
2:E:497:GLN:NE2	2:E:497:GLN:CA	2.73	0.51
3:F:294:SER:HB3	3:F:300:PRO:HA	1.92	0.51
2:A:28:ASN:HD21	2:A:47:GLU:CD	2.18	0.51
3:B:149:PHE:CE2	3:B:189:ILE:CD1	2.89	0.51
1:a:114:LEU:HD21	8:b:37:VAL:C	1.94	0.51
3:B:293:PRO:HG3	5:g:359:GLY:HA3	1.92	0.51
5:g:72:VAL:HG23	5:g:316:LEU:HB3	1.92	0.51
6:N:68:LEU:HD22	6:O:66:TYR:CG	2.46	0.51
6:L:3:PRO:HD2	6:L:5:ILE:HD12	1.92	0.51
7:p:110:THR:HB	7:p:111:PRO:HD3	1.91	0.51
7:p:174:LEU:CD2	8:b:114:THR:OG1	2.58	0.51
9:d:186:LEU:HD11	9:d:191:LEU:CD1	2.40	0.51
1:a:24:GLN:CB	7:p:83:LEU:CD1	2.83	0.51
1:a:24:GLN:C	7:p:83:LEU:HB3	2.35	0.51
3:D:163:ARG:HG2	3:D:374:MET:HG3	1.92	0.51
2:E:13:ILE:HD13	9:d:132:ILE:HG12	1.91	0.51
2:E:419:GLU:OE2	2:E:422:LYS:NZ	2.43	0.51
3:F:411:ASP:N	3:F:418:ARG:HH22	2.05	0.51
5:g:209:LYS:HA	5:g:231:LEU:O	2.10	0.51
6:O:57:LEU:N	6:O:57:LEU:HD23	2.24	0.51
6:Q:46:GLU:OE1	6:R:48:LYS:HD3	2.10	0.51
7:p:127:LEU:HB2	8:b:64:ILE:HA	1.92	0.51
7:p:127:LEU:HA	7:p:130:VAL:CG1	2.37	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:196:LYS:C	7:p:199:THR:HG22	2.32	0.51
8:b:57:LYS:O	8:b:60:ILE:CG2	2.56	0.51
8:b:176:PHE:CZ	9:d:223:ILE:HD13	2.45	0.51
1:a:114:LEU:HB3	8:b:38:LEU:HB2	0.54	0.51
2:E:157:MET:SD	2:E:387:LEU:CD1	2.95	0.51
3:F:221:VAL:HG12	3:F:232:VAL:HB	1.93	0.51
2:A:3:THR:HB	7:p:196:LYS:CA	2.34	0.51
2:A:20:TYR:HE1	9:d:242:GLU:CD	2.19	0.51
3:B:141:GLN:O	3:B:317:LYS:HG3	2.09	0.51
3:B:254:LEU:CD1	3:B:313:ILE:HG12	2.39	0.51
6:O:43:PRO:CA	6:P:48:LYS:HZ3	2.22	0.51
6:Q:40:ALA:CB	6:R:49:ILE:HD11	2.37	0.51
6:G:3:PRO:HD2	6:G:5:ILE:HD12	1.92	0.51
6:H:3:PRO:HD2	6:H:5:ILE:HD12	1.92	0.51
1:a:39:VAL:HG11	7:p:93:ILE:CB	2.41	0.51
2:C:13:ILE:O	2:C:17:ILE:HG13	2.10	0.51
3:D:353:SER:HB2	3:D:366:ASP:HB2	1.93	0.51
2:A:13:ILE:O	7:p:214:ILE:CG2	2.58	0.51
5:g:155:TYR:HE2	5:g:174:ILE:HG23	1.76	0.51
6:M:3:PRO:HD2	6:M:5:ILE:HD12	1.92	0.51
6:G:81:VAL:CG2	6:H:80:PHE:CZ	2.94	0.51
6:K:3:PRO:HD2	6:K:5:ILE:HD12	1.92	0.51
3:D:168:ILE:HB	3:D:324:ILE:HA	1.93	0.51
3:D:334:LEU:HD22	3:D:343:PHE:HE2	1.76	0.51
3:F:113:VAL:HG22	3:F:249:VAL:CG2	2.40	0.51
2:A:13:ILE:HG22	7:p:213:ASP:C	2.31	0.51
2:A:77:MET:HE3	2:A:112:LEU:CD2	2.17	0.51
4:e:8:LEU:HD12	4:e:8:LEU:O	2.11	0.51
6:N:3:PRO:HD2	6:N:5:ILE:HD12	1.92	0.51
6:M:48:LYS:NZ	6:L:43:PRO:HB3	2.24	0.51
6:K:57:LEU:O	6:K:61:GLU:N	2.35	0.51
6:J:3:PRO:HD2	6:J:5:ILE:HD12	1.92	0.51
7:p:127:LEU:HG	8:b:67:SER:HB2	1.93	0.51
8:b:142:GLN:O	8:b:143:ARG:C	2.52	0.51
9:d:220:GLY:H	9:d:236:SER:HB2	1.75	0.51
1:a:112:GLY:O	8:b:34:LEU:HD22	2.11	0.51
2:E:109:ILE:CG2	2:E:225:VAL:HA	2.41	0.51
2:A:20:TYR:CZ	9:d:242:GLU:HG2	2.33	0.51
2:A:45:LEU:O	3:B:87:ARG:NH2	2.41	0.51
2:A:237:TYR:CZ	2:A:294:LEU:HD13	2.44	0.51
2:A:239:ALA:N	2:A:240:PRO:HD2	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:189:ILE:CG2	3:B:269:LEU:HD11	2.33	0.51
5:g:174:ILE:HG22	5:g:175:PRO:O	2.11	0.51
5:g:202:PHE:CE2	5:g:231:LEU:HB3	2.46	0.51
6:S:3:PRO:HD2	6:S:5:ILE:HD12	1.92	0.51
6:S:10:VAL:CG2	6:T:74:LEU:HD21	2.36	0.51
6:R:3:PRO:HD2	6:R:5:ILE:HD12	1.92	0.51
6:T:3:PRO:HD2	6:T:5:ILE:HD12	1.92	0.51
6:J:42:GLN:NE2	6:I:43:PRO:CG	2.73	0.51
7:p:219:LEU:HB2	7:p:220:PRO:CD	2.35	0.51
1:a:208:VAL:HG21	1:a:212:VAL:HG21	1.92	0.51
3:D:164:ARG:NH1	3:D:320:SER:HB3	2.26	0.51
3:D:211:ASP:O	3:D:215:GLU:HG3	2.11	0.51
5:g:227:ILE:CG2	5:g:242:ILE:CD1	2.89	0.51
6:O:3:PRO:HD2	6:O:5:ILE:HD12	1.92	0.51
6:Q:3:PRO:HD2	6:Q:5:ILE:HD12	1.92	0.51
6:G:43:PRO:HB3	6:H:48:LYS:HZ3	1.67	0.51
7:p:174:LEU:HD12	8:b:110:LEU:O	2.05	0.51
9:d:181:THR:O	9:d:221:PHE:CA	2.58	0.51
1:a:115:LEU:HD23	8:b:38:LEU:HD13	1.92	0.51
1:a:207:LEU:HD23	6:H:76:PHE:CE2	2.45	0.51
2:C:42:ILE:CD1	2:C:89:VAL:HG11	2.23	0.51
2:C:104:TYR:CD1	2:C:122:ILE:HG21	2.46	0.51
2:C:172:ARG:NH2	3:B:369:ASP:OD1	2.44	0.51
2:C:430:THR:HG22	2:C:431:VAL:N	2.26	0.51
2:E:58:GLU:HA	2:E:58:GLU:OE1	2.11	0.51
2:A:5:ARG:C	7:p:203:LEU:CD2	2.84	0.51
2:A:9:ILE:HG23	7:p:210:LEU:HG	1.87	0.51
3:B:109:ARG:NH1	3:B:119:ASP:CG	2.69	0.51
3:B:202:VAL:HG22	3:B:249:VAL:HG23	1.93	0.51
3:B:336:ASP:OD1	3:B:337:PRO:CD	2.56	0.51
6:O:6:ALA:HB1	6:P:80:PHE:CD2	2.38	0.51
6:G:10:VAL:HG22	6:H:74:LEU:HD22	1.90	0.51
7:p:167:GLN:O	7:p:171:GLU:HB3	2.10	0.51
9:d:75:ALA:HB1	9:d:160:GLU:HG2	1.93	0.51
1:a:165:ILE:CG2	1:a:168:THR:C	2.71	0.51
3:D:50:LYS:HD2	3:D:90:GLU:HG3	1.94	0.51
2:E:326:ASP:OD2	5:g:343:ARG:HD3	2.10	0.51
3:F:157:ASP:HB3	3:F:451:LEU:HD13	1.92	0.51
3:F:411:ASP:OD2	5:g:131:GLY:HA2	2.11	0.51
3:F:425:ARG:HH12	3:F:429:ARG:NH2	2.06	0.51
2:A:104:TYR:HE1	2:A:122:ILE:CD1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:401:LEU:HA	3:B:404:ILE:HG12	1.93	0.51
6:P:3:PRO:HD2	6:P:5:ILE:HD12	1.92	0.51
6:H:46:GLU:OE1	6:I:48:LYS:CD	2.58	0.51
7:p:151:ALA:HB3	8:b:88:VAL:CG1	2.32	0.51
9:d:152:SER:O	9:d:153:GLU:OE1	2.14	0.51
9:d:222:THR:CG2	9:d:234:ASP:CG	2.75	0.51
3:D:64:GLU:OE2	3:D:133:HIS:NE2	2.43	0.50
3:D:155:VAL:HG22	3:D:431:LEU:HB3	1.91	0.50
2:E:13:ILE:HD13	9:d:132:ILE:HG13	1.93	0.50
2:E:424:PRO:CB	2:E:455:ARG:NH1	2.74	0.50
2:E:432:GLU:HG3	2:E:476:ILE:HB	1.93	0.50
2:A:167:LEU:HA	2:A:318:PRO:HD2	1.93	0.50
3:B:168:ILE:HB	3:B:324:ILE:HA	1.93	0.50
4:e:119:LEU:HD11	4:e:123:ARG:HH21	1.76	0.50
6:L:42:GLN:HE22	6:K:43:PRO:CG	2.13	0.50
7:p:83:LEU:HD12	7:p:84:PHE:CD2	2.41	0.50
9:d:157:LEU:HD12	9:d:157:LEU:O	2.12	0.50
1:a:51:LEU:HG	7:p:104:LEU:CD1	2.42	0.50
2:C:159:PRO:HB3	2:C:372:GLN:HG3	1.93	0.50
2:C:404:ASP:N	2:C:404:ASP:OD1	2.42	0.50
3:D:25:GLN:HE21	3:D:27:ILE:CD1	2.23	0.50
3:D:427:ILE:HD11	3:D:462:LEU:HD21	1.92	0.50
2:A:12:ILE:H	7:p:210:LEU:HD13	1.74	0.50
2:A:17:ILE:CA	7:p:217:LYS:CB	2.73	0.50
2:A:104:TYR:CD2	2:A:246:LEU:CD2	2.94	0.50
3:B:64:GLU:OE1	3:B:248:ARG:CZ	2.59	0.50
6:P:57:LEU:O	6:P:61:GLU:N	2.35	0.50
6:T:57:LEU:O	6:T:61:GLU:N	2.35	0.50
7:p:127:LEU:CG	8:b:67:SER:HB2	2.40	0.50
7:p:140:LEU:O	8:b:82:ARG:N	2.43	0.50
7:p:156:SER:N	8:b:95:PHE:CD2	2.78	0.50
9:d:177:VAL:HA	9:d:208:ARG:O	2.11	0.50
1:a:65:PRO:HB2	1:a:70:ASN:HD21	0.34	0.50
1:a:116:PRO:C	8:b:31:LEU:CG	2.80	0.50
2:C:22:ARG:HG3	2:C:23:GLU:N	2.27	0.50
3:D:293:PRO:CB	5:g:353:ILE:HG21	2.42	0.50
2:A:28:ASN:CB	2:A:91:ALA:HB3	2.32	0.50
3:B:168:ILE:HD12	3:B:324:ILE:HG12	1.93	0.50
5:g:327:THR:CG2	5:g:328:ASP:N	2.74	0.50
7:p:87:ASN:OD1	7:p:89:THR:N	2.29	0.50
8:b:45:GLY:O	8:b:49:LEU:CB	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:37:ASP:OD2	3:B:291:ARG:NH2	2.42	0.50
2:C:383:LEU:HD13	2:C:417:LEU:HD22	1.93	0.50
3:D:336:ASP:HB3	3:D:339:PRO:CD	2.41	0.50
2:E:177:THR:OG1	11:E:600:ATP:O2B	2.28	0.50
2:A:251:MET:CE	2:A:252:TYR:CE1	2.94	0.50
6:R:35:ALA:CB	6:R:53:LEU:HD13	2.42	0.50
6:M:48:LYS:HD2	6:L:43:PRO:HB3	1.93	0.50
6:G:35:ALA:CB	6:G:53:LEU:HD13	2.42	0.50
9:d:179:VAL:HA	9:d:210:LYS:O	2.11	0.50
1:a:121:GLN:HB2	8:b:26:ILE:O	2.11	0.50
2:C:376:MET:HE1	2:C:438:ILE:HD12	1.93	0.50
2:E:65:LEU:CD1	2:E:75:VAL:HG21	2.41	0.50
2:A:12:ILE:HG22	8:b:141:ARG:HD2	1.94	0.50
2:A:13:ILE:HG22	7:p:213:ASP:HB3	1.92	0.50
2:A:17:ILE:HG22	7:p:213:ASP:O	2.09	0.50
2:A:98:ILE:HG22	2:A:128:ARG:O	2.12	0.50
2:A:383:LEU:HD12	2:A:383:LEU:C	2.35	0.50
3:B:110:ILE:HD11	3:B:213:TYR:CD1	2.47	0.50
4:e:100:GLU:HG3	4:e:119:LEU:HD21	1.94	0.50
5:g:122:VAL:HG13	5:g:213:LEU:HD11	1.93	0.50
6:S:35:ALA:CB	6:S:53:LEU:HD13	2.41	0.50
6:P:43:PRO:CG	6:Q:42:GLN:NE2	2.73	0.50
6:H:40:ALA:CB	6:I:49:ILE:HD11	2.37	0.50
1:a:103:LEU:HD13	7:p:109:TYR:OH	2.06	0.50
2:C:176:LYS:HD2	2:C:319:ILE:CG2	2.41	0.50
3:D:199:PHE:HB3	3:D:234:LEU:HD23	1.94	0.50
2:E:216:ARG:HG3	2:E:216:ARG:NH2	2.26	0.50
2:A:394:GLU:OE1	2:A:418:ARG:NH2	2.39	0.50
6:Q:35:ALA:CB	6:Q:53:LEU:HD13	2.41	0.50
6:L:42:GLN:NE2	6:K:43:PRO:CG	2.74	0.50
9:d:235:MET:HE1	9:d:239:LYS:HG2	1.93	0.50
1:a:64:ILE:CD1	8:b:61:LEU:HD23	2.42	0.50
1:a:114:LEU:CB	8:b:38:LEU:N	2.73	0.50
2:C:165:ARG:HD3	2:C:299:LEU:O	2.12	0.50
3:D:297:GLY:N	5:g:353:ILE:HD12	2.27	0.50
2:E:436:MET:O	2:E:440:THR:HG23	2.11	0.50
3:F:19:ASN:OD1	3:F:19:ASN:N	2.45	0.50
3:F:69:LEU:HD11	3:F:75:ARG:HB2	1.93	0.50
2:A:164:GLN:NE2	2:A:166:GLU:OE1	2.45	0.50
2:A:247:ALA:HB3	2:A:314:MET:CE	2.41	0.50
2:A:254:GLU:HG2	2:A:310:GLY:HA3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:g:257:LEU:O	5:g:257:LEU:HD12	2.11	0.50
5:g:261:GLU:CG	5:g:262:GLY:H	2.04	0.50
6:T:35:ALA:CB	6:T:53:LEU:HD13	2.41	0.50
7:p:148:MET:HG2	8:b:88:VAL:H	1.75	0.50
8:b:87:LYS:O	8:b:90:MET:CB	2.53	0.50
2:E:366:ARG:HD2	3:F:441:PHE:HE1	1.76	0.50
2:A:12:ILE:CG2	8:b:141:ARG:HD2	2.42	0.50
2:A:104:TYR:HD2	2:A:246:LEU:HD22	1.77	0.50
2:A:404:ASP:OD1	2:A:404:ASP:N	2.45	0.50
4:e:58:LEU:HD12	4:e:58:LEU:O	2.11	0.50
6:K:35:ALA:CB	6:K:53:LEU:HD13	2.41	0.50
6:J:35:ALA:CB	6:J:53:LEU:HD13	2.41	0.50
8:b:176:PHE:HZ	9:d:223:ILE:CD1	2.25	0.50
9:d:198:VAL:O	9:d:202:THR:CB	2.59	0.50
1:a:159:GLY:O	1:a:160:TYR:CD2	2.65	0.50
2:C:48:VAL:HG22	2:C:49:MET:N	2.27	0.50
2:C:489:LEU:CD2	2:C:489:LEU:C	2.85	0.50
3:D:154:LYS:NZ	3:D:477:VAL:O	2.36	0.50
2:E:13:ILE:HD11	9:d:131:GLU:C	2.37	0.50
2:E:413:ARG:NH2	2:E:444:GLY:HA3	2.26	0.50
4:e:15:TRP:NE1	4:e:17:SER:O	2.45	0.50
4:e:23:ILE:HG23	4:e:50:ARG:HB2	1.93	0.50
6:S:80:PHE:CE2	6:R:81:VAL:CG2	2.95	0.50
6:G:6:ALA:HB1	6:H:80:PHE:CD2	2.42	0.50
6:H:35:ALA:CB	6:H:53:LEU:HD13	2.41	0.50
8:b:88:VAL:O	8:b:90:MET:N	2.44	0.50
9:d:129:LEU:HD23	9:d:147:ASN:OD1	2.11	0.50
9:d:188:ASN:HD22	9:d:188:ASN:N	2.09	0.50
1:a:40:LEU:HB3	7:p:96:GLU:OE2	2.05	0.49
1:a:135:ASN:HB3	7:p:90:LEU:O	2.10	0.49
2:C:169:ILE:HG13	2:C:322:THR:HG23	1.93	0.49
2:C:290:ASP:O	2:C:294:LEU:N	2.36	0.49
2:C:461:LEU:C	2:C:461:LEU:CD2	2.85	0.49
2:E:154:ILE:HD12	2:E:358:ILE:HD13	1.93	0.49
2:A:20:TYR:CE2	2:A:22:ARG:HB2	2.47	0.49
2:A:232:PRO:HG2	2:A:235:LEU:HG	1.94	0.49
3:B:146:LEU:CD2	3:B:163:ARG:HE	2.25	0.49
3:B:441:PHE:CD1	12:B:501:ADP:H2'	2.47	0.49
5:g:253:GLU:HB2	5:g:269:ASP:O	2.12	0.49
6:G:81:VAL:CG2	6:H:80:PHE:CE2	2.92	0.49
6:L:35:ALA:CB	6:L:53:LEU:HD13	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:179:LYS:C	7:p:179:LYS:CD	2.86	0.49
2:C:30:GLY:O	2:C:89:VAL:HG12	2.12	0.49
2:C:490:LEU:C	2:C:490:LEU:CD2	2.85	0.49
3:D:110:ILE:HB	3:D:119:ASP:HB3	1.94	0.49
2:E:185:LEU:CD1	2:E:426:SER:OG	2.60	0.49
2:E:398:GLN:O	5:g:221:VAL:HG21	2.12	0.49
3:B:102:VAL:HG22	3:B:128:THR:HG22	1.93	0.49
3:B:182:ILE:HG23	3:B:183:MET:N	2.26	0.49
4:e:5:LEU:CD2	4:e:51:ILE:HD12	2.42	0.49
4:e:32:GLY:O	6:K:41:ARG:O	2.30	0.49
5:g:72:VAL:CG1	5:g:257:LEU:CD2	2.91	0.49
6:O:35:ALA:CB	6:O:53:LEU:HD13	2.41	0.49
6:P:35:ALA:CB	6:P:53:LEU:HD13	2.41	0.49
6:P:40:ALA:CB	6:Q:49:ILE:HD11	2.37	0.49
6:M:35:ALA:HA	6:L:36:VAL:HG11	1.93	0.49
9:d:224:ARG:CG	9:d:232:LEU:HD12	2.41	0.49
1:a:34:GLN:HE21	7:p:87:ASN:CB	2.26	0.49
3:D:433:GLN:NE2	3:D:447:LYS:O	2.46	0.49
2:A:7:ASP:HA	7:p:205:SER:N	2.27	0.49
2:A:16:ARG:NH1	8:b:141:ARG:CA	2.75	0.49
4:e:45:ASP:OD2	4:e:120:ARG:NH2	2.46	0.49
6:N:35:ALA:CB	6:N:53:LEU:HD13	2.41	0.49
6:H:43:PRO:CB	6:I:48:LYS:HZ2	2.17	0.49
7:p:123:ILE:HD13	8:b:64:ILE:HD13	1.94	0.49
9:d:181:THR:HG21	9:d:214:ASP:OD2	2.13	0.49
2:C:463:THR:CG2	2:C:464:TYR:N	2.76	0.49
3:D:20:LEU:HD21	3:D:92:ILE:HG12	1.93	0.49
3:B:61:VAL:HG23	3:B:61:VAL:O	2.11	0.49
5:g:239:ILE:HG23	5:g:239:ILE:O	2.12	0.49
5:g:285:GLU:OE1	5:g:285:GLU:HA	2.12	0.49
6:N:80:PHE:CZ	6:M:81:VAL:CG2	2.95	0.49
6:M:35:ALA:CB	6:M:53:LEU:HD13	2.41	0.49
6:L:48:LYS:HZ2	6:K:43:PRO:CB	2.25	0.49
9:d:74:THR:HB	9:d:154:ARG:NH1	2.28	0.49
1:a:115:LEU:N	8:b:34:LEU:HD21	2.15	0.49
2:C:202:LYS:CD	3:B:345:HIS:O	2.55	0.49
2:E:107:ARG:NH2	2:E:117:ASP:OD2	2.45	0.49
2:A:410:GLN:HE22	3:B:472:GLN:HG3	1.77	0.49
6:S:43:PRO:HB3	6:T:48:LYS:HZ3	1.52	0.49
1:a:184:LEU:HD21	1:a:188:PHE:CD2	2.41	0.49
2:C:176:LYS:HD2	2:C:319:ILE:HG23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:148:GLN:O	2:E:186:ASN:ND2	2.46	0.49
2:A:259:ILE:HG23	2:A:259:ILE:O	2.12	0.49
6:S:75:LEU:HD21	6:T:74:LEU:HD21	1.95	0.49
6:N:48:LYS:HZ3	6:M:43:PRO:CA	2.24	0.49
6:O:43:PRO:HB3	6:P:48:LYS:CD	2.42	0.49
7:p:169:GLU:HG2	8:b:107:LYS:HZ1	1.78	0.49
8:b:176:PHE:CZ	9:d:223:ILE:CD1	2.95	0.49
9:d:222:THR:HG22	9:d:234:ASP:HB2	0.49	0.49
3:D:50:LYS:CD	3:D:90:GLU:OE2	2.60	0.49
2:A:4:ILE:C	7:p:203:LEU:HB3	2.38	0.49
2:A:20:TYR:OH	9:d:242:GLU:CB	2.56	0.49
3:B:51:GLY:O	3:B:59:MET:O	2.31	0.49
5:g:281:ILE:CA	6:N:41:ARG:HH22	2.04	0.49
6:R:57:LEU:O	6:R:61:GLU:N	2.35	0.49
6:I:35:ALA:CB	6:I:53:LEU:HD13	2.42	0.49
7:p:199:THR:CG2	7:p:200:ILE:N	2.75	0.49
8:b:61:LEU:HD13	8:b:61:LEU:O	2.13	0.49
1:a:135:ASN:CA	7:p:90:LEU:CD2	2.85	0.49
2:C:147:LEU:HD22	2:C:315:THR:HG21	1.95	0.49
2:C:390:PHE:HE2	2:C:418:ARG:HD2	1.76	0.49
3:D:124:VAL:HG12	3:D:126:THR:CG2	2.41	0.49
2:E:100:VAL:HG23	2:E:246:LEU:HD23	1.94	0.49
2:E:424:PRO:HB3	2:E:455:ARG:HH11	1.78	0.49
2:A:20:TYR:CE1	9:d:242:GLU:HG2	2.46	0.49
2:A:107:ARG:HD2	2:A:119:ARG:NH1	2.28	0.49
2:A:176:LYS:NZ	2:A:321:GLU:HB3	2.27	0.49
3:B:398:TYR:OH	3:B:425:ARG:HD3	2.12	0.49
5:g:132:GLY:O	5:g:136:MET:CG	2.56	0.49
6:J:57:LEU:O	6:J:61:GLU:N	2.35	0.49
7:p:108:TYR:CD1	7:p:112:LEU:CD1	2.66	0.49
2:C:173:GLN:CG	3:B:371:THR:HG21	2.42	0.49
3:D:163:ARG:HG2	3:D:374:MET:CG	2.43	0.49
3:D:254:LEU:HD21	3:D:312:ARG:HB2	1.94	0.49
2:E:131:GLU:OE1	2:E:297:ARG:NH2	2.45	0.49
2:E:420:LEU:HD23	2:E:458:LEU:CD1	2.42	0.49
2:E:432:GLU:HA	2:E:435:VAL:HG12	1.95	0.49
2:A:7:ASP:O	7:p:206:GLN:N	2.44	0.49
2:A:16:ARG:HH12	8:b:141:ARG:HA	1.78	0.49
3:B:173:GLY:O	3:B:178:LYS:NZ	2.45	0.49
6:O:21:SER:OG	6:P:20:ALA:HA	2.13	0.49
6:M:20:ALA:HA	6:L:21:SER:OG	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:J:12:ALA:HB2	6:I:11:ILE:HA	1.95	0.49
6:J:66:TYR:CG	6:I:68:LEU:HD22	2.48	0.49
7:p:127:LEU:CD2	8:b:67:SER:HB2	2.42	0.49
8:b:114:THR:HA	8:b:117:THR:HG22	1.94	0.49
1:a:24:GLN:CG	7:p:83:LEU:HD21	2.38	0.49
3:D:426:LYS:HG2	3:D:474:PHE:CD2	2.48	0.49
2:A:17:ILE:HG22	7:p:214:ILE:CA	2.43	0.49
3:B:113:VAL:HG21	3:B:245:ALA:HB1	1.95	0.49
4:e:38:ALA:HB1	6:M:41:ARG:CZ	2.43	0.49
6:S:43:PRO:CB	6:T:48:LYS:HZ2	2.12	0.49
2:C:101:SER:OG	2:C:102:GLU:N	2.46	0.48
2:C:416:ARG:HG3	2:C:454:VAL:HG21	1.95	0.48
2:C:503:LEU:O	2:C:504:GLN:HG2	2.13	0.48
2:E:54:VAL:O	2:E:54:VAL:HG23	2.12	0.48
2:E:457:TYR:OH	2:E:498:MET:CG	2.61	0.48
3:F:170:LEU:HD22	3:F:181:LEU:HD23	1.94	0.48
3:F:464:GLY:O	3:F:465:GLU:C	2.56	0.48
5:g:71:LYS:CB	5:g:316:LEU:HD13	2.41	0.48
5:g:107:VAL:CG1	5:g:296:LEU:HD12	2.42	0.48
6:Q:43:PRO:CB	6:R:48:LYS:HZ2	2.19	0.48
7:p:174:LEU:CD1	8:b:114:THR:HB	2.43	0.48
7:p:184:GLU:CD	8:b:122:GLU:CD	2.80	0.48
8:b:61:LEU:O	8:b:61:LEU:HD22	2.13	0.48
1:a:40:LEU:CD2	7:p:96:GLU:HB3	2.31	0.48
1:a:165:ILE:CG2	1:a:169:PRO:CA	2.92	0.48
2:C:284:ARG:HH12	2:C:330:TYR:HA	1.76	0.48
2:C:285:GLU:O	3:B:295:ALA:HB2	2.12	0.48
2:E:24:VAL:CG1	9:d:119:VAL:HG21	2.42	0.48
2:E:403:LEU:HB3	2:E:408:GLN:HB2	1.95	0.48
2:A:13:ILE:C	7:p:213:ASP:C	2.74	0.48
5:g:211:GLU:HB2	5:g:228:HIS:O	2.13	0.48
6:S:48:LYS:HZ3	6:R:43:PRO:CA	2.25	0.48
7:p:155:ILE:CG2	8:b:95:PHE:CG	2.96	0.48
9:d:186:LEU:CD1	9:d:191:LEU:CG	2.64	0.48
1:a:134:ILE:CD1	7:p:90:LEU:HD13	2.41	0.48
2:C:68:GLU:O	3:D:87:ARG:NH1	2.46	0.48
2:C:284:ARG:HH12	2:C:330:TYR:CA	2.26	0.48
2:A:4:ILE:CG2	7:p:203:LEU:CA	2.91	0.48
5:g:79:VAL:CG1	5:g:306:ARG:NH2	2.76	0.48
7:p:159:LEU:CD1	7:p:160:ASN:N	2.68	0.48
7:p:193:GLU:HA	7:p:196:LYS:CD	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:214:ILE:CD1	8:b:145:PHE:HA	2.43	0.48
9:d:87:ASP:HB2	9:d:172:ILE:HD11	1.91	0.48
9:d:109:GLU:N	9:d:110:PRO:CD	2.76	0.48
9:d:195:ALA:C	9:d:207:VAL:HG11	2.38	0.48
2:E:464:TYR:HD2	2:E:497:GLN:HB2	1.78	0.48
2:A:138:MET:HE1	3:B:213:TYR:CE2	2.48	0.48
4:e:37:HIS:CE1	6:L:41:ARG:NE	2.69	0.48
5:g:123:VAL:HG22	5:g:308:LEU:HD21	1.95	0.48
5:g:240:CYS:HB3	5:g:246:CYS:CA	2.43	0.48
6:N:80:PHE:CE2	6:M:81:VAL:CG2	2.94	0.48
6:M:57:LEU:O	6:M:61:GLU:N	2.35	0.48
9:d:216:SER:O	9:d:217:LEU:O	2.32	0.48
1:a:137:THR:HG21	1:a:191:PHE:HA	1.94	0.48
3:D:385:TYR:O	3:D:389:GLN:HG2	2.13	0.48
2:E:158:ILE:HG12	2:E:363:SER:HB2	1.94	0.48
3:F:79:MET:HE3	3:F:113:VAL:HG11	1.96	0.48
2:A:13:ILE:HA	9:d:247:GLN:HE22	1.79	0.48
3:B:102:VAL:CG2	3:B:128:THR:HG22	2.44	0.48
5:g:83:ARG:NH2	5:g:273:THR:HG22	2.26	0.48
8:b:147:GLN:HA	8:b:150:GLN:CD	2.38	0.48
1:a:27:TYR:CZ	1:a:122:LEU:HD11	2.08	0.48
1:a:134:ILE:CD1	1:a:134:ILE:C	2.85	0.48
1:a:207:LEU:CD1	6:H:76:PHE:HD2	2.15	0.48
2:C:4:ILE:O	2:C:4:ILE:HG12	2.13	0.48
2:E:36:GLY:O	2:E:39:ILE:HG22	2.14	0.48
2:E:98:ILE:HG23	2:E:130:ILE:HG12	1.96	0.48
2:E:344:PHE:CD2	2:E:362:ILE:O	2.67	0.48
2:A:17:ILE:CD1	7:p:217:LYS:H	1.71	0.48
5:g:123:VAL:HG13	5:g:308:LEU:HD21	1.82	0.48
6:N:48:LYS:HZ2	6:M:43:PRO:CB	2.19	0.48
9:d:198:VAL:CA	9:d:201:ILE:HG12	2.43	0.48
1:a:36:HIS:CA	7:p:89:THR:OG1	2.62	0.48
2:E:430:THR:HG22	2:E:431:VAL:N	2.28	0.48
2:A:70:ASN:CA	9:d:71:VAL:HG12	2.15	0.48
2:A:392:GLU:CG	3:B:429:ARG:HH22	2.26	0.48
4:e:62:LEU:HD13	4:e:78:VAL:HG21	1.96	0.48
4:e:96:LEU:HD13	4:e:123:ARG:N	2.29	0.48
5:g:202:PHE:CB	5:g:231:LEU:CD1	2.91	0.48
6:P:81:VAL:CG2	6:Q:80:PHE:CE2	2.94	0.48
7:p:155:ILE:HB	8:b:95:PHE:HD2	1.78	0.48
8:b:98:ASN:O	8:b:102:GLU:HG2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:d:155:ILE:HA	9:d:158:VAL:HG23	1.96	0.48
1:a:51:LEU:CG	7:p:104:LEU:HA	2.42	0.48
2:C:16:ARG:C	9:d:148:ILE:HD11	2.38	0.48
2:C:208:GLN:HE22	3:B:144:THR:HG22	1.72	0.48
2:E:329:ALA:HB3	2:E:332:PRO:CD	2.44	0.48
2:E:413:ARG:NH2	2:E:444:GLY:CA	2.76	0.48
3:F:433:GLN:NE2	3:F:447:LYS:O	2.40	0.48
2:A:227:GLU:CG	2:A:239:ALA:HB2	2.43	0.48
3:B:404:ILE:HG13	3:B:405:ILE:N	2.28	0.48
5:g:110:THR:CG2	5:g:296:LEU:HD13	2.42	0.48
6:O:68:LEU:HD22	6:P:66:TYR:CG	2.49	0.48
7:p:174:LEU:CD2	8:b:114:THR:CB	2.91	0.48
8:b:85:LEU:HD12	8:b:85:LEU:C	2.39	0.48
1:a:24:GLN:HG2	7:p:83:LEU:HD21	1.92	0.48
2:E:469:LYS:HZ2	2:E:493:ALA:N	2.12	0.48
2:A:24:VAL:CG2	8:b:179:MET:HG3	2.36	0.48
4:e:20:LYS:HG3	4:e:53:LEU:HD12	1.96	0.48
5:g:231:LEU:HD23	5:g:233:LEU:HD12	1.96	0.48
6:N:48:LYS:CD	6:M:46:GLU:OE1	2.62	0.48
6:J:74:LEU:HD22	6:I:10:VAL:HG21	1.92	0.48
1:a:122:LEU:HB3	1:a:125:GLY:O	2.13	0.48
1:a:173:PRO:O	1:a:177:LEU:HG	2.14	0.48
2:A:13:ILE:HD12	2:A:16:ARG:HH21	1.73	0.48
2:A:247:ALA:CB	2:A:314:MET:HE3	2.44	0.48
5:g:72:VAL:HG22	5:g:316:LEU:HB2	1.95	0.48
6:O:10:VAL:HG22	6:P:74:LEU:CD2	2.40	0.48
6:G:57:LEU:O	6:G:61:GLU:N	2.35	0.48
7:p:215:VAL:HG13	7:p:216:LYS:N	2.28	0.48
8:b:114:THR:CA	8:b:117:THR:HG22	2.44	0.48
3:F:280:GLN:O	3:F:284:GLU:HG3	2.14	0.47
6:S:49:ILE:HD11	6:R:40:ALA:CB	2.39	0.47
7:p:128:SER:O	7:p:132:ASP:N	2.40	0.47
9:d:181:THR:O	9:d:221:PHE:HA	2.14	0.47
1:a:73:GLU:OE1	7:p:116:MET:CB	2.57	0.47
1:a:203:VAL:O	1:a:207:LEU:HD13	2.14	0.47
2:C:48:VAL:HG23	2:C:52:GLU:OE1	2.14	0.47
2:C:214:GLN:HG3	2:C:219:MET:CG	2.42	0.47
2:E:52:GLU:HA	2:E:95:ILE:HA	1.96	0.47
2:E:79:ASP:HB3	2:E:81:LEU:HG	1.95	0.47
2:E:100:VAL:HG23	2:E:246:LEU:CD2	2.43	0.47
3:F:50:LYS:HE2	3:F:92:ILE:CD1	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:9:ILE:CG1	7:p:207:ILE:HA	2.41	0.47
3:B:274:ASN:HD21	3:B:328:TYR:CB	2.27	0.47
4:e:91:GLU:N	4:e:91:GLU:CD	2.72	0.47
5:g:202:PHE:HZ	5:g:232:PRO:HG3	1.79	0.47
5:g:335:LYS:O	5:g:339:ILE:HG12	2.14	0.47
6:N:74:LEU:HD22	6:M:10:VAL:HG22	1.93	0.47
6:J:48:LYS:CD	6:I:46:GLU:OE1	2.63	0.47
6:J:74:LEU:CD2	6:I:10:VAL:HG22	2.37	0.47
2:C:156:ALA:O	2:C:372:GLN:NE2	2.46	0.47
2:C:156:ALA:HB2	2:C:438:ILE:HD11	1.96	0.47
3:D:163:ARG:HG2	3:D:374:MET:SD	2.54	0.47
2:A:7:ASP:N	7:p:206:GLN:H	2.03	0.47
2:A:11:LYS:HB2	7:p:206:GLN:OE1	2.14	0.47
2:A:101:SER:HB3	2:A:124:ALA:HA	1.96	0.47
2:A:151:LEU:HB2	2:A:154:ILE:HD13	1.96	0.47
2:A:176:LYS:HZ3	2:A:321:GLU:HB3	1.77	0.47
2:A:424:PRO:HG2	2:A:427:ALA:CB	2.44	0.47
5:g:83:ARG:HH21	5:g:273:THR:CG2	2.19	0.47
6:S:48:LYS:HG2	6:R:46:GLU:OE1	2.13	0.47
6:N:6:ALA:HB1	6:O:80:PHE:CD2	2.43	0.47
6:N:53:LEU:CD2	6:O:52:THR:CG2	2.93	0.47
6:M:48:LYS:O	6:L:46:GLU:OE2	2.32	0.47
6:T:21:SER:OG	6:G:20:ALA:HA	2.14	0.47
6:J:48:LYS:HZ3	6:I:43:PRO:CA	2.26	0.47
7:p:130:VAL:C	8:b:71:ARG:HB2	2.39	0.47
9:d:186:LEU:HD12	9:d:186:LEU:O	2.13	0.47
1:a:35:ILE:HD12	7:p:92:ILE:HG23	1.83	0.47
1:a:47:ILE:CG1	7:p:100:LEU:CB	2.48	0.47
1:a:143:LEU:CD1	7:p:98:LEU:HD23	2.28	0.47
2:C:279:ARG:HH22	5:g:363:CYS:C	2.22	0.47
2:C:461:LEU:HA	2:C:497:GLN:HG2	1.96	0.47
2:C:469:LYS:CE	2:C:493:ALA:CA	2.92	0.47
3:D:313:ILE:HG21	3:D:323:SER:HB3	1.95	0.47
3:D:330:PRO:HD2	3:D:339:PRO:HG3	1.97	0.47
2:E:469:LYS:HZ1	2:E:492:GLU:C	2.22	0.47
3:F:247:MET:CE	3:F:285:VAL:HG21	2.45	0.47
2:A:379:VAL:HG12	2:A:438:ILE:HG22	1.97	0.47
5:g:83:ARG:N	5:g:84:PRO:CD	2.77	0.47
5:g:103:GLU:CB	6:R:41:ARG:HG3	2.43	0.47
5:g:107:VAL:HG21	5:g:292:LEU:HG	1.97	0.47
2:C:56:PHE:CE1	2:C:89:VAL:HB	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:469:LYS:NZ	2:E:492:GLU:C	2.73	0.47
3:F:61:VAL:HG11	3:F:85:LEU:HD11	1.96	0.47
3:B:407:ILE:HG22	3:B:408:LEU:CD2	2.45	0.47
4:e:100:GLU:O	4:e:104:ARG:HG3	2.15	0.47
9:d:98:ASP:OD2	9:d:139:GLN:HG2	2.14	0.47
9:d:195:ALA:HB1	9:d:207:VAL:HG11	1.97	0.47
1:a:69:GLN:NE2	7:p:115:PHE:HD2	2.13	0.47
1:a:130:PRO:O	1:a:133:ASP:OD1	2.32	0.47
2:C:355:ARG:HH12	3:B:389:GLN:NE2	2.12	0.47
3:D:163:ARG:HB2	3:D:166:GLY:HA3	1.95	0.47
3:F:146:LEU:HD22	3:F:374:MET:HE1	1.95	0.47
2:A:6:ALA:C	7:p:206:GLN:CB	2.87	0.47
2:A:22:ARG:HH21	9:d:235:MET:HE2	1.79	0.47
2:A:210:VAL:HG13	2:A:219:MET:HE3	1.97	0.47
3:B:109:ARG:NH2	3:B:122:GLY:O	2.43	0.47
5:g:121:MET:HA	5:g:158:ILE:O	2.14	0.47
5:g:209:LYS:O	5:g:209:LYS:HG2	2.14	0.47
7:p:193:GLU:CA	7:p:196:LYS:HG2	2.44	0.47
7:p:206:GLN:HE21	7:p:210:LEU:HD13	1.79	0.47
8:b:45:GLY:O	8:b:49:LEU:HB2	2.14	0.47
1:a:61:PRO:CA	7:p:119:ARG:HH11	2.23	0.47
1:a:84:LYS:HA	1:a:91:TYR:HB3	1.96	0.47
1:a:134:ILE:CG1	7:p:90:LEU:HD21	2.44	0.47
1:a:139:ALA:HB2	7:p:94:MET:HG2	0.50	0.47
2:C:4:ILE:CB	9:d:74:THR:HG23	2.45	0.47
2:C:140:ARG:NE	3:D:206:THR:CG2	2.68	0.47
2:C:263:ASP:OD1	2:C:319:ILE:HG22	2.15	0.47
2:C:402:ASP:OD2	5:g:71:LYS:NZ	2.47	0.47
2:C:437:THR:HG23	2:C:458:LEU:HD13	1.97	0.47
3:D:148:ILE:HD11	3:D:161:PRO:HB3	1.96	0.47
3:D:361:ILE:HG23	3:D:432:SER:CB	2.31	0.47
3:D:405:ILE:HD13	3:D:410:LEU:HD21	1.97	0.47
2:A:13:ILE:CD1	8:b:141:ARG:O	2.63	0.47
2:A:51:GLY:O	2:A:95:ILE:HG23	2.14	0.47
2:A:185:LEU:HD23	2:A:218:ALA:HB2	1.97	0.47
2:A:420:LEU:HD11	2:A:441:GLY:HA3	1.95	0.47
3:B:101:PRO:O	3:B:256:MET:HE2	2.14	0.47
5:g:240:CYS:HB3	5:g:246:CYS:HA	1.96	0.47
6:O:43:PRO:HB2	6:P:48:LYS:HZ2	1.79	0.47
6:Q:46:GLU:OE1	6:R:48:LYS:CD	2.63	0.47
6:Q:57:LEU:O	6:Q:61:GLU:N	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:131:LYS:HA	8:b:70:LEU:HB2	1.97	0.47
7:p:158:ALA:CB	8:b:96:ARG:CD	2.93	0.47
7:p:207:ILE:HA	8:b:144:VAL:CG2	2.40	0.47
8:b:160:LEU:CG	8:b:163:GLU:HB2	2.45	0.47
9:d:74:THR:HB	9:d:154:ARG:HH12	1.80	0.47
9:d:75:ALA:CB	9:d:160:GLU:CG	2.93	0.47
1:a:47:ILE:HD13	7:p:104:LEU:HD22	1.97	0.47
2:C:137:ILE:HG23	2:C:138:MET:HG2	1.97	0.47
3:D:335:THR:C	5:g:346:GLN:HE22	2.22	0.47
3:D:411:ASP:O	3:D:418:ARG:NH2	2.47	0.47
3:F:237:GLY:H	3:F:249:VAL:HG11	1.80	0.47
3:F:313:ILE:O	3:F:313:ILE:HG22	2.15	0.47
2:A:8:GLU:CG	7:p:203:LEU:HD21	2.43	0.47
2:A:18:GLU:N	7:p:217:LYS:CG	2.76	0.47
5:g:222:LYS:CE	5:g:224:ASP:OD1	2.61	0.47
7:p:140:LEU:HG	8:b:78:LEU:HB3	0.98	0.47
2:C:403:LEU:HD13	2:C:407:THR:CG2	2.45	0.47
3:D:19:ASN:HB2	3:D:93:ASP:HB3	1.97	0.47
3:F:174:ALA:O	3:F:354:ARG:NH2	2.48	0.47
3:F:425:ARG:NH1	3:F:429:ARG:NH2	2.53	0.47
2:A:4:ILE:CG2	7:p:202:SER:HB2	2.45	0.47
2:A:28:ASN:CG	2:A:47:GLU:OE1	2.58	0.47
2:A:63:ILE:HD11	2:A:238:LEU:HD11	1.96	0.47
2:A:349:LEU:HD22	2:A:354:ILE:HD12	1.95	0.47
6:S:43:PRO:CG	6:T:42:GLN:NE2	2.77	0.47
6:N:10:VAL:HG22	6:O:74:LEU:CD2	2.40	0.47
6:O:75:LEU:HD21	6:P:74:LEU:HD21	1.96	0.47
9:d:177:VAL:CG1	9:d:210:LYS:CE	2.93	0.47
1:a:114:LEU:CD1	8:b:37:VAL:C	2.88	0.47
3:D:265:GLU:HG2	3:D:318:GLU:HB3	1.96	0.47
2:E:413:ARG:CZ	2:E:444:GLY:CA	2.92	0.47
2:A:5:ARG:O	7:p:206:GLN:HB3	2.14	0.47
2:A:13:ILE:HD11	8:b:141:ARG:O	2.15	0.47
2:A:120:GLY:CA	8:b:131:PHE:CD1	2.88	0.47
2:A:146:PRO:HG2	2:A:373:ILE:HG23	1.96	0.47
4:e:5:LEU:HD22	4:e:22:ILE:HG21	1.97	0.47
5:g:82:GLY:C	5:g:84:PRO:HD2	2.40	0.47
5:g:138:LEU:HD13	5:g:167:TYR:CG	2.49	0.47
5:g:280:PRO:O	6:N:41:ARG:NH2	2.45	0.47
7:p:130:VAL:HG22	8:b:66:ASN:O	2.14	0.47
1:a:36:HIS:H	7:p:89:THR:HG1	1.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:27:VAL:HG12	2:C:46:ASP:HB2	1.97	0.46
3:F:149:PHE:CZ	3:F:189:ILE:CD1	2.92	0.46
2:A:13:ILE:CG1	7:p:211:SER:HA	2.41	0.46
3:B:267:ASP:OD1	3:B:267:ASP:N	2.47	0.46
5:g:79:VAL:HG13	5:g:306:ARG:NH2	2.30	0.46
6:N:43:PRO:CB	6:O:48:LYS:HZ2	2.20	0.46
6:P:46:GLU:OE1	6:Q:48:LYS:HD3	2.15	0.46
6:L:55:LEU:HD23	6:K:54:LEU:HD11	1.97	0.46
1:a:36:HIS:CD2	7:p:89:THR:OG1	2.45	0.46
1:a:73:GLU:HB2	7:p:116:MET:SD	2.55	0.46
1:a:109:ASN:HB3	1:a:224:SER:HB3	1.96	0.46
2:C:302:ALA:HB2	2:C:314:MET:HG2	1.97	0.46
2:E:282:PRO:CG	5:g:354:LEU:HD22	2.42	0.46
2:A:7:ASP:HB2	7:p:203:LEU:CB	2.44	0.46
2:A:53:LEU:HD22	2:A:61:ILE:CG2	2.45	0.46
3:B:261:ARG:HD3	3:B:321:ILE:CG1	2.46	0.46
5:g:138:LEU:HD13	5:g:167:TYR:CD1	2.49	0.46
6:G:43:PRO:HB3	6:H:48:LYS:CD	2.46	0.46
7:p:181:ILE:HB	8:b:118:LEU:HD13	0.60	0.46
9:d:186:LEU:CD1	9:d:191:LEU:HD21	2.31	0.46
1:a:116:PRO:O	8:b:31:LEU:CD2	2.60	0.46
2:C:146:PRO:HB2	2:C:148:GLN:HE21	1.81	0.46
2:C:239:ALA:N	2:C:240:PRO:HD2	2.31	0.46
3:D:22:ARG:HD2	3:D:88:GLY:O	2.15	0.46
3:D:333:ASP:OD2	5:g:345:ARG:NH2	2.45	0.46
2:A:11:LYS:CA	7:p:206:GLN:NE2	2.77	0.46
2:A:20:TYR:CE1	9:d:242:GLU:OE2	2.63	0.46
2:A:171:ASP:O	2:A:176:LYS:HE2	2.15	0.46
3:B:143:ASP:OD2	3:B:315:SER:CB	2.61	0.46
4:e:21:GLU:CD	4:e:34:LEU:CD2	2.51	0.46
5:g:119:ALA:HB2	5:g:207:VAL:CG1	2.20	0.46
6:S:46:GLU:CD	6:T:48:LYS:HB3	2.38	0.46
6:N:74:LEU:HD21	6:M:75:LEU:HD21	1.97	0.46
7:p:185:LEU:HB3	8:b:121:PHE:CE2	2.46	0.46
1:a:50:LEU:HD21	1:a:107:VAL:HG21	1.96	0.46
1:a:113:ALA:O	8:b:34:LEU:CA	2.40	0.46
1:a:172:LEU:HD11	1:a:176:ILE:HD11	1.98	0.46
2:C:249:TYR:OH	2:C:253:ARG:NH1	2.48	0.46
3:D:183:MET:HB3	3:D:437:VAL:HG11	1.98	0.46
2:E:109:ILE:CG2	2:E:225:VAL:HG22	2.45	0.46
2:E:393:LEU:HD22	2:E:407:THR:HG23	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:48:ILE:CG2	3:F:59:MET:HE2	2.45	0.46
2:A:271:TYR:CD2	2:A:294:LEU:CD2	2.90	0.46
2:A:354:ILE:HG12	2:A:422:LYS:HE2	1.97	0.46
4:e:34:LEU:HB3	4:e:35:PRO:CD	2.45	0.46
5:g:103:GLU:CB	6:R:41:ARG:NE	2.74	0.46
6:P:75:LEU:HD21	6:Q:74:LEU:HD21	1.97	0.46
6:H:81:VAL:CG2	6:I:80:PHE:CZ	2.99	0.46
6:L:74:LEU:HD21	6:K:10:VAL:CG2	2.44	0.46
7:p:214:ILE:CG1	7:p:215:VAL:N	2.76	0.46
8:b:117:THR:HG23	8:b:118:LEU:N	2.31	0.46
1:a:121:GLN:HB3	8:b:26:ILE:HG22	1.96	0.46
1:a:144:THR:HG21	1:a:186:LEU:CD2	2.46	0.46
2:C:214:GLN:CG	2:C:219:MET:HG3	2.42	0.46
2:C:343:ILE:HG22	2:C:358:ILE:HD12	1.98	0.46
3:D:376:GLN:O	3:D:380:VAL:HG22	2.15	0.46
3:F:311:GLU:HB2	2:A:230:ASP:HB3	1.97	0.46
2:A:109:ILE:CD1	2:A:246:LEU:HD11	2.46	0.46
3:B:346:LEU:HD12	3:B:349:THR:HG22	1.98	0.46
7:p:152:ARG:H	8:b:88:VAL:CG1	2.28	0.46
7:p:159:LEU:HD23	8:b:95:PHE:CE2	2.46	0.46
7:p:184:GLU:OE2	8:b:122:GLU:CD	2.59	0.46
1:a:65:PRO:HB3	1:a:70:ASN:HD22	1.75	0.46
1:a:217:MET:SD	8:b:37:VAL:CG2	3.03	0.46
2:C:68:GLU:HA	3:D:25:GLN:HB2	1.96	0.46
2:C:165:ARG:CD	2:C:299:LEU:HB3	2.45	0.46
2:C:379:VAL:CG1	2:C:438:ILE:HB	2.46	0.46
2:C:393:LEU:HD22	2:C:396:PHE:CD2	2.51	0.46
2:C:430:THR:HG22	2:C:431:VAL:H	1.80	0.46
3:D:260:PHE:HD1	3:D:264:ASN:HD22	1.63	0.46
3:D:384:HIS:O	3:D:384:HIS:HD2	1.99	0.46
3:F:269:LEU:HD23	3:F:322:THR:HB	1.97	0.46
3:F:345:HIS:HE1	2:A:229:ALA:HB1	1.81	0.46
2:A:13:ILE:HD12	8:b:145:PHE:HA	1.97	0.46
2:A:141:ARG:HD3	2:A:304:LYS:HE3	1.98	0.46
4:e:19:VAL:HG22	4:e:52:ARG:O	2.15	0.46
6:S:21:SER:OG	6:T:20:ALA:HA	2.16	0.46
6:L:48:LYS:HD3	6:K:46:GLU:OE1	2.16	0.46
9:d:177:VAL:HG13	9:d:210:LYS:HE3	1.98	0.46
9:d:195:ALA:O	9:d:199:GLN:CG	2.50	0.46
3:D:20:LEU:CD2	3:D:92:ILE:HG12	2.46	0.46
3:D:297:GLY:HA3	5:g:353:ILE:HD11	1.90	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:193:ILE:CD1	2:E:250:PHE:CD1	2.99	0.46
3:F:292:MET:CE	2:A:276:LEU:HD23	2.46	0.46
4:e:20:LYS:N	4:e:53:LEU:HD13	2.30	0.46
6:M:80:PHE:CZ	6:L:81:VAL:HG22	2.51	0.46
7:p:214:ILE:HB	7:p:218:VAL:HG13	1.98	0.46
9:d:117:ASN:HA	9:d:118:PRO:HD3	1.65	0.46
2:C:193:ILE:CD1	2:C:250:PHE:CD1	2.98	0.46
3:D:124:VAL:CG1	3:D:126:THR:HG22	2.42	0.46
3:F:50:LYS:O	3:F:57:GLN:NE2	2.49	0.46
2:A:82:MET:HE2	2:A:82:MET:N	2.31	0.46
3:B:398:TYR:CZ	3:B:425:ARG:HD3	2.51	0.46
4:e:43:ALA:HB1	5:g:294:ALA:CB	2.46	0.46
6:P:81:VAL:CG2	6:Q:80:PHE:CZ	2.99	0.46
6:L:48:LYS:HB3	6:K:46:GLU:CD	2.40	0.46
7:p:85:ASP:O	7:p:86:PHE:HD1	1.99	0.46
7:p:106:LYS:O	7:p:111:PRO:CD	2.64	0.46
8:b:147:GLN:O	8:b:150:GLN:N	2.49	0.46
1:a:64:ILE:CG2	8:b:57:LYS:CE	2.74	0.46
1:a:118:LYS:NZ	1:a:126:GLU:HB3	2.29	0.46
2:C:169:ILE:HG23	2:C:344:PHE:HA	1.98	0.46
2:E:109:ILE:HG12	2:E:113:ALA:HA	1.95	0.46
2:A:70:ASN:OD1	9:d:71:VAL:CB	2.61	0.46
3:B:274:ASN:HB3	3:B:277:ARG:HG2	1.97	0.46
4:e:24:LEU:HD12	4:e:24:LEU:C	2.40	0.46
5:g:120:LEU:O	5:g:157:ILE:HA	2.16	0.46
7:p:127:LEU:HA	7:p:130:VAL:HG12	1.81	0.46
7:p:181:ILE:HA	8:b:118:LEU:HD11	1.74	0.46
8:b:82:ARG:O	8:b:85:LEU:CD1	2.62	0.46
1:a:134:ILE:HG21	1:a:191:PHE:CE2	2.38	0.46
1:a:165:ILE:HG12	1:a:172:LEU:HA	1.76	0.46
2:E:105:LEU:CD2	2:E:193:ILE:HG23	2.45	0.46
2:E:180:ALA:HB2	2:E:319:ILE:HD11	1.97	0.46
2:E:494:ILE:C	2:E:498:MET:HE2	2.40	0.46
2:A:48:VAL:CG2	2:A:49:MET:N	2.79	0.46
6:S:74:LEU:HD21	6:R:10:VAL:CG2	2.37	0.46
1:a:58:VAL:HG22	7:p:112:LEU:HA	1.49	0.45
1:a:122:LEU:HA	8:b:23:ASN:C	2.36	0.45
2:C:5:ARG:CZ	9:d:154:ARG:CZ	2.87	0.45
2:C:385:LEU:N	2:C:385:LEU:HD23	2.31	0.45
3:D:179:THR:HG22	3:D:183:MET:HE3	1.97	0.45
2:A:6:ALA:O	7:p:204:ASP:O	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:13:ILE:O	7:p:214:ILE:HG23	2.16	0.45
5:g:148:LEU:N	5:g:148:LEU:HD23	2.31	0.45
5:g:186:PRO:HD3	5:g:312:LEU:CD2	2.46	0.45
6:N:40:ALA:CB	6:O:49:ILE:HD11	2.35	0.45
6:N:80:PHE:CD2	6:M:6:ALA:HB1	2.43	0.45
7:p:112:LEU:O	7:p:116:MET:HG2	2.16	0.45
7:p:139:GLN:N	8:b:78:LEU:HB2	2.30	0.45
7:p:166:THR:HG23	7:p:167:GLN:N	2.30	0.45
8:b:176:PHE:HZ	9:d:223:ILE:HD13	1.81	0.45
1:a:54:ALA:O	7:p:112:LEU:CG	2.64	0.45
1:a:116:PRO:CB	8:b:31:LEU:O	2.54	0.45
2:C:12:ILE:HG12	2:C:43:HIS:CD2	2.51	0.45
2:C:17:ILE:CG1	9:d:148:ILE:CD1	2.95	0.45
2:E:42:ILE:HD12	2:E:74:VAL:HG21	1.97	0.45
2:E:420:LEU:HD23	2:E:458:LEU:HD11	1.97	0.45
2:E:469:LYS:HZ1	2:E:493:ALA:N	2.14	0.45
3:F:412:GLU:OE1	5:g:129:LEU:HA	2.16	0.45
2:A:9:ILE:CB	7:p:210:LEU:HD22	2.31	0.45
2:A:152:ILE:HG22	2:A:423:GLN:NE2	2.30	0.45
6:P:43:PRO:HB3	6:Q:48:LYS:HZ3	1.58	0.45
8:b:88:VAL:O	8:b:91:ASP:N	2.50	0.45
8:b:165:HIS:CE1	9:d:184:VAL:HG21	2.47	0.45
8:b:176:PHE:CE2	8:b:180:ASN:ND2	2.73	0.45
2:C:279:ARG:CZ	5:g:363:CYS:HB2	2.44	0.45
2:E:446:LEU:HD21	2:E:457:TYR:CE2	2.51	0.45
2:A:152:ILE:H	2:A:423:GLN:NE2	2.14	0.45
3:B:113:VAL:HG22	3:B:249:VAL:CG1	2.37	0.45
3:B:477:VAL:HG21	3:B:483:ALA:HB2	1.98	0.45
1:a:103:LEU:HB3	7:p:109:TYR:OH	2.10	0.45
1:a:134:ILE:HG13	7:p:90:LEU:HD21	1.98	0.45
2:C:322:THR:HG22	2:C:332:PRO:HG2	1.99	0.45
2:C:360:VAL:O	2:C:360:VAL:HG22	2.17	0.45
3:F:50:LYS:HZ3	3:F:92:ILE:HD12	1.81	0.45
2:A:68:GLU:O	3:B:87:ARG:NH1	2.49	0.45
3:B:261:ARG:HH11	3:B:321:ILE:HD12	1.80	0.45
5:g:122:VAL:HG23	5:g:157:ILE:HG23	1.98	0.45
5:g:227:ILE:HG21	5:g:242:ILE:CD1	2.47	0.45
5:g:281:ILE:N	6:N:41:ARG:HH21	2.14	0.45
6:S:81:VAL:CG2	6:T:80:PHE:CE2	2.95	0.45
6:M:52:THR:CG2	6:L:53:LEU:CD2	2.95	0.45
6:G:33:GLY:CA	6:H:31:ALA:HA	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:68:LEU:HD22	6:H:66:TYR:CG	2.51	0.45
7:p:136:GLU:HG2	8:b:75:ILE:HG12	1.90	0.45
7:p:137:VAL:HG11	8:b:76:GLU:H	1.26	0.45
8:b:160:LEU:HD22	8:b:163:GLU:CB	2.46	0.45
8:b:160:LEU:CB	8:b:163:GLU:HB2	2.44	0.45
2:C:140:ARG:NH1	2:C:303:ALA:HB3	2.31	0.45
2:C:387:LEU:HD23	2:C:387:LEU:HA	1.66	0.45
3:D:310:GLN:HE21	3:D:345:HIS:HB3	1.82	0.45
3:F:108:GLY:HA2	3:F:222:ILE:HD12	1.98	0.45
5:g:231:LEU:HD23	5:g:233:LEU:CD1	2.47	0.45
6:R:62:ALA:HA	6:R:65:ILE:CG2	2.47	0.45
6:K:48:LYS:HZ3	6:J:43:PRO:HB3	1.60	0.45
8:b:160:LEU:CD1	8:b:163:GLU:CA	2.51	0.45
3:D:53:ASP:OD2	3:D:57:GLN:NE2	2.50	0.45
3:D:425:ARG:HG2	3:D:425:ARG:HH11	1.81	0.45
3:D:426:LYS:HG2	3:D:474:PHE:HD2	1.81	0.45
2:E:149:THR:C	2:E:186:ASN:HD22	2.24	0.45
2:A:6:ALA:CA	7:p:207:ILE:CG1	2.73	0.45
2:A:6:ALA:C	7:p:206:GLN:H	2.19	0.45
3:B:108:GLY:N	3:B:232:VAL:O	2.50	0.45
3:B:423:ARG:HH21	3:B:464:GLY:CA	2.29	0.45
5:g:158:ILE:CD1	5:g:198:VAL:HG22	2.47	0.45
5:g:227:ILE:HG23	5:g:242:ILE:CD1	2.46	0.45
6:G:10:VAL:HG22	6:H:74:LEU:CD2	2.43	0.45
9:d:169:PHE:O	9:d:169:PHE:CD1	2.70	0.45
1:a:215:PRO:O	1:a:218:PHE:HB2	2.17	0.45
2:C:181:THR:HG23	2:C:213:PHE:HE1	1.82	0.45
2:C:279:ARG:HA	3:B:292:MET:HE2	1.98	0.45
2:E:424:PRO:HG2	2:E:427:ALA:HB3	1.99	0.45
3:F:173:GLY:O	3:F:178:LYS:NZ	2.50	0.45
2:A:271:TYR:CG	2:A:294:LEU:HD22	2.51	0.45
2:A:393:LEU:HD12	2:A:411:LEU:HD21	1.98	0.45
4:e:21:GLU:O	4:e:52:ARG:O	2.34	0.45
4:e:50:ARG:HG2	4:e:59:THR:CG2	2.41	0.45
5:g:255:PHE:O	5:g:255:PHE:CD1	2.70	0.45
6:L:49:ILE:HD11	6:K:40:ALA:CB	2.39	0.45
8:b:118:LEU:O	8:b:121:PHE:HB3	2.16	0.45
9:d:74:THR:CG2	9:d:154:ARG:HH12	2.29	0.45
1:a:39:VAL:CB	1:a:133:ASP:OD2	2.65	0.45
2:C:8:GLU:OE2	9:d:154:ARG:NH2	2.50	0.45
2:C:32:VAL:HG22	2:C:56:PHE:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:106:GLY:CA	2:C:219:MET:HE3	2.41	0.45
2:C:302:ALA:HB1	2:C:314:MET:O	2.17	0.45
2:C:449:LEU:CD1	2:C:457:TYR:HD2	2.29	0.45
3:D:293:PRO:CG	5:g:357:VAL:CG2	2.91	0.45
3:F:217:LYS:HA	3:F:222:ILE:O	2.17	0.45
2:A:8:GLU:N	7:p:203:LEU:CD2	2.79	0.45
2:A:56:PHE:CZ	2:A:76:LEU:HD21	2.51	0.45
4:e:119:LEU:HD12	4:e:123:ARG:NH2	2.29	0.45
6:J:37:GLU:OE2	6:J:41:ARG:NH2	2.50	0.45
7:p:144:ALA:HA	8:b:82:ARG:HA	0.92	0.45
7:p:207:ILE:HD11	8:b:140:VAL:HG22	1.98	0.45
7:p:218:VAL:C	9:d:243:GLU:CD	2.85	0.45
8:b:85:LEU:HD12	8:b:86:LYS:CA	2.47	0.45
9:d:114:PHE:CE1	9:d:120:ILE:HG21	2.52	0.45
9:d:224:ARG:NH2	9:d:229:GLY:O	2.50	0.45
2:E:193:ILE:HD13	2:E:250:PHE:CD1	2.51	0.45
2:E:247:ALA:CB	2:E:314:MET:SD	3.05	0.45
2:A:6:ALA:HB1	7:p:204:ASP:HA	0.46	0.45
2:A:184:ILE:HD11	2:A:260:ILE:CG1	2.46	0.45
2:A:322:THR:HG22	2:A:332:PRO:CG	2.47	0.45
3:B:237:GLY:HA3	3:B:249:VAL:HG21	1.98	0.45
5:g:284:PHE:CD1	5:g:291:ILE:CD1	2.89	0.45
6:S:62:ALA:HA	6:S:65:ILE:CG2	2.47	0.45
6:Q:62:ALA:HA	6:Q:65:ILE:CG2	2.47	0.45
6:G:75:LEU:HD21	6:H:74:LEU:HD21	1.99	0.45
7:p:144:ALA:C	8:b:85:LEU:H	2.25	0.45
1:a:51:LEU:HD21	7:p:104:LEU:C	2.41	0.45
1:a:201:VAL:HG13	8:b:33:ASN:ND2	2.31	0.45
2:C:95:ILE:HG13	2:C:95:ILE:O	2.17	0.45
3:D:384:HIS:O	3:D:384:HIS:CD2	2.70	0.45
2:E:153:ALA:HB3	2:E:358:ILE:CD1	2.41	0.45
2:E:156:ALA:O	2:E:372:GLN:NE2	2.49	0.45
2:E:494:ILE:O	2:E:498:MET:CG	2.63	0.45
2:A:9:ILE:CG2	7:p:207:ILE:O	2.64	0.45
2:A:12:ILE:CG2	7:p:210:LEU:HD11	2.45	0.45
2:A:57:GLU:OE1	2:A:87:SER:HB2	2.16	0.45
2:A:284:ARG:HH21	3:B:296:VAL:HG12	1.81	0.45
2:A:390:PHE:CD1	2:A:390:PHE:C	2.95	0.45
2:A:390:PHE:CD1	2:A:390:PHE:O	2.70	0.45
2:A:439:TYR:CD2	2:A:490:LEU:HD21	2.51	0.45
3:B:191:LYS:NZ	3:B:219:SER:CB	2.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S:42:GLN:HE22	6:R:43:PRO:CG	2.22	0.45
6:L:62:ALA:HA	6:L:65:ILE:CG2	2.47	0.45
6:J:80:PHE:CZ	6:I:81:VAL:HG22	2.52	0.45
7:p:162:MET:SD	8:b:100:TYR:CE2	3.10	0.45
7:p:193:GLU:CG	7:p:196:LYS:CE	2.58	0.45
2:E:247:ALA:HB3	2:E:314:MET:SD	2.57	0.44
2:A:17:ILE:CD1	7:p:218:VAL:CG2	2.73	0.44
3:B:18:LYS:O	3:B:18:LYS:HG2	2.17	0.44
5:g:104:ASP:HB2	6:S:41:ARG:CZ	2.47	0.44
5:g:123:VAL:CG2	5:g:308:LEU:HD21	2.48	0.44
6:S:10:VAL:HG22	6:T:74:LEU:HD22	1.98	0.44
6:K:48:LYS:HD3	6:J:46:GLU:OE1	2.17	0.44
1:a:28:TRP:CB	1:a:34:GLN:HB2	2.43	0.44
2:C:271:TYR:CD1	2:C:294:LEU:CD1	3.01	0.44
3:D:425:ARG:HG2	3:D:425:ARG:NH1	2.32	0.44
2:E:390:PHE:CD2	2:E:418:ARG:NH2	2.80	0.44
3:F:134:ARG:HE	3:F:258:GLU:CD	2.22	0.44
2:A:18:GLU:N	7:p:217:LYS:HB3	2.18	0.44
2:A:106:GLY:HA2	2:A:219:MET:HG3	1.98	0.44
2:A:119:ARG:CB	8:b:127:GLU:OE2	2.63	0.44
2:A:237:TYR:OH	2:A:294:LEU:CD1	2.59	0.44
2:A:322:THR:HG22	2:A:332:PRO:HG2	1.99	0.44
6:M:51:GLY:C	6:L:50:ARG:NH2	2.76	0.44
6:M:62:ALA:HA	6:M:65:ILE:CG2	2.47	0.44
6:H:57:LEU:O	6:H:61:GLU:N	2.35	0.44
6:K:62:ALA:HA	6:K:65:ILE:CG2	2.47	0.44
9:d:187:GLU:HB2	9:d:190:HIS:CE1	2.52	0.44
1:a:164:TYR:CE2	1:a:166:GLN:HA	2.52	0.44
2:C:457:TYR:CD1	2:C:457:TYR:C	2.93	0.44
2:E:176:LYS:HD2	2:E:319:ILE:HG23	1.99	0.44
2:A:12:ILE:CG2	8:b:141:ARG:CG	2.91	0.44
2:A:449:LEU:C	2:A:449:LEU:HD12	2.42	0.44
2:A:457:TYR:O	2:A:457:TYR:CD1	2.70	0.44
3:B:79:MET:HE3	3:B:113:VAL:HG11	1.99	0.44
5:g:103:GLU:CG	6:R:41:ARG:HG3	2.48	0.44
6:P:62:ALA:HA	6:P:65:ILE:CG2	2.47	0.44
6:T:62:ALA:HA	6:T:65:ILE:CG2	2.47	0.44
7:p:134:SER:HB2	8:b:70:LEU:HB3	1.47	0.44
7:p:137:VAL:HG13	8:b:71:ARG:O	2.16	0.44
7:p:211:SER:H	8:b:144:VAL:HG13	1.72	0.44
2:C:117:ASP:OD2	2:C:119:ARG:HD3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:202:VAL:N	3:F:273:ASP:O	2.45	0.44
3:B:426:LYS:NZ	3:B:467:ASP:HA	2.32	0.44
5:g:213:LEU:HD12	5:g:213:LEU:C	2.43	0.44
6:M:55:LEU:HD21	6:L:54:LEU:CG	2.47	0.44
6:G:43:PRO:CA	6:H:48:LYS:HZ3	2.28	0.44
8:b:160:LEU:CD1	8:b:164:LEU:HB3	2.42	0.44
1:a:35:ILE:CD1	7:p:92:ILE:HG23	2.38	0.44
1:a:40:LEU:HA	7:p:93:ILE:CD1	2.47	0.44
1:a:168:THR:CG2	1:a:170:ILE:HG12	2.47	0.44
2:C:25:LYS:HB3	2:C:27:VAL:HG13	1.98	0.44
2:C:457:TYR:CD1	2:C:457:TYR:O	2.71	0.44
2:E:379:VAL:HG12	2:E:438:ILE:HG21	1.99	0.44
2:E:390:PHE:CE1	2:E:414:GLY:HA3	2.51	0.44
2:E:497:GLN:HA	2:E:497:GLN:HE21	1.79	0.44
3:F:148:ILE:HG12	3:F:149:PHE:H	1.82	0.44
3:F:274:ASN:HB3	3:F:277:ARG:HG2	1.99	0.44
2:A:96:ALA:HB1	2:A:130:ILE:HD12	2.00	0.44
2:A:249:TYR:CD1	2:A:249:TYR:C	2.96	0.44
2:A:424:PRO:HG2	2:A:427:ALA:HB3	2.00	0.44
2:A:457:TYR:CD1	2:A:457:TYR:C	2.94	0.44
3:B:180:VAL:HG23	12:B:501:ADP:O1A	2.18	0.44
4:e:10:PRO:HD3	5:g:85:PHE:CE2	2.53	0.44
5:g:85:PHE:CD1	5:g:85:PHE:O	2.71	0.44
6:N:62:ALA:HA	6:N:65:ILE:CG2	2.47	0.44
6:J:62:ALA:HA	6:J:65:ILE:CG2	2.47	0.44
7:p:193:GLU:HG3	7:p:196:LYS:HE3	1.83	0.44
8:b:61:LEU:CD1	8:b:61:LEU:C	2.86	0.44
9:d:133:ILE:HD13	9:d:143:ALA:HB1	1.98	0.44
9:d:136:SER:OG	9:d:138:LEU:HD23	2.15	0.44
1:a:69:GLN:NE2	7:p:116:MET:HE1	2.33	0.44
1:a:201:VAL:HG13	8:b:33:ASN:HD22	1.82	0.44
2:C:5:ARG:HD2	2:C:70:ASN:HD21	1.80	0.44
2:C:147:LEU:CD2	2:C:258:LEU:HD13	2.47	0.44
3:D:23:ILE:HG21	3:D:26:ILE:CD1	2.47	0.44
2:E:435:VAL:CG1	2:E:436:MET:N	2.80	0.44
3:F:221:VAL:HG12	3:F:232:VAL:CG2	2.43	0.44
3:F:275:ILE:CG1	3:F:327:VAL:HG22	2.48	0.44
3:F:299:GLN:O	3:F:299:GLN:HG2	2.16	0.44
3:F:427:ILE:HD11	3:F:462:LEU:HD21	1.99	0.44
2:A:151:LEU:HD12	2:A:154:ILE:HD13	2.00	0.44
3:B:118:VAL:O	3:B:118:VAL:CG1	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:387:ILE:HG13	3:B:388:ALA:N	2.33	0.44
4:e:90:GLN:C	4:e:90:GLN:CD	2.85	0.44
6:N:53:LEU:CD2	6:O:52:THR:HG23	2.47	0.44
6:P:43:PRO:HB2	6:Q:48:LYS:HZ3	1.56	0.44
6:G:62:ALA:HA	6:G:65:ILE:CG2	2.47	0.44
6:L:62:ALA:O	6:L:63:LEU:C	2.61	0.44
6:J:80:PHE:CD2	6:I:6:ALA:HB1	2.46	0.44
1:a:58:VAL:HG11	7:p:111:PRO:C	2.42	0.44
1:a:161:PHE:CD1	1:a:162:GLY:N	2.85	0.44
3:D:42:ASN:OD1	3:D:42:ASN:N	2.49	0.44
3:D:405:ILE:HD11	3:D:421:VAL:CG2	2.47	0.44
3:F:279:VAL:HG13	3:F:302:LEU:CD1	2.48	0.44
2:A:227:GLU:OE1	2:A:227:GLU:HA	2.16	0.44
3:B:146:LEU:HD22	3:B:374:MET:CE	2.34	0.44
5:g:251:GLU:CD	5:g:270:MET:SD	2.97	0.44
6:S:81:VAL:CG2	6:T:80:PHE:CZ	3.01	0.44
6:N:75:LEU:HD11	6:O:70:VAL:HG13	1.98	0.44
6:J:62:ALA:O	6:J:63:LEU:C	2.61	0.44
7:p:144:ALA:C	7:p:147:VAL:HG12	2.32	0.44
9:d:165:PHE:CE1	9:d:169:PHE:HB2	2.53	0.44
9:d:233:VAL:O	9:d:233:VAL:HG23	2.18	0.44
3:D:336:ASP:O	3:D:339:PRO:HD2	2.17	0.44
2:E:148:GLN:HG3	2:E:431:VAL:CG2	2.48	0.44
3:F:29:PRO:HD2	3:F:288:LEU:CD1	2.47	0.44
3:F:170:LEU:HD23	3:F:350:THR:HB	1.99	0.44
3:F:473:ALA:HB1	3:F:487:ALA:HB2	1.99	0.44
2:A:16:ARG:HH21	8:b:145:PHE:CA	2.31	0.44
2:A:439:TYR:HB3	2:A:490:LEU:HD21	2.00	0.44
4:e:22:ILE:CG2	4:e:51:ILE:CD1	2.95	0.44
6:S:43:PRO:HB3	6:T:48:LYS:CE	2.46	0.44
6:N:20:ALA:HA	6:M:21:SER:OG	2.18	0.44
6:N:57:LEU:O	6:N:61:GLU:N	2.35	0.44
6:O:62:ALA:O	6:O:63:LEU:C	2.61	0.44
6:P:46:GLU:OE1	6:Q:48:LYS:CD	2.66	0.44
7:p:123:ILE:CD1	8:b:64:ILE:HD11	2.23	0.44
7:p:174:LEU:HD11	8:b:114:THR:HG1	1.70	0.44
8:b:33:ASN:O	8:b:33:ASN:OD1	2.35	0.44
8:b:160:LEU:HD22	8:b:163:GLU:HB3	1.98	0.44
9:d:102:LEU:CD2	9:d:146:ILE:HD11	2.48	0.44
1:a:47:ILE:HD12	7:p:100:LEU:HD12	1.04	0.44
2:C:246:LEU:HD23	2:C:246:LEU:HA	1.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:302:ALA:HB2	2:C:314:MET:CE	2.40	0.44
2:C:374:LYS:HB2	2:C:480:LYS:O	2.18	0.44
2:E:379:VAL:HG21	2:E:435:VAL:HG23	2.00	0.44
2:E:416:ARG:NE	2:E:447:ASP:HA	2.32	0.44
2:A:109:ILE:HD11	2:A:225:VAL:HG22	1.99	0.44
2:A:392:GLU:OE2	3:B:429:ARG:CZ	2.66	0.44
3:B:170:LEU:HB2	3:B:326:ALA:HA	1.99	0.44
3:B:288:LEU:HA	3:B:288:LEU:HD23	1.70	0.44
6:Q:62:ALA:O	6:Q:63:LEU:C	2.61	0.44
6:T:33:GLY:CA	6:G:31:ALA:HA	2.47	0.44
6:H:62:ALA:O	6:H:63:LEU:C	2.61	0.44
6:H:62:ALA:HA	6:H:65:ILE:CG2	2.47	0.44
7:p:107:ILE:O	7:p:111:PRO:CG	2.64	0.44
7:p:166:THR:O	7:p:170:VAL:HB	2.18	0.44
9:d:157:LEU:HD12	9:d:161:ILE:CD1	2.48	0.44
9:d:157:LEU:CD1	9:d:161:ILE:HD11	2.48	0.44
1:a:39:VAL:HG21	1:a:133:ASP:CB	2.48	0.43
1:a:143:LEU:HD23	1:a:143:LEU:HA	1.78	0.43
1:a:161:PHE:CE1	1:a:163:LYS:N	2.81	0.43
2:C:376:MET:CE	2:C:438:ILE:HD12	2.48	0.43
3:F:25:GLN:HB2	3:F:32:ASP:HB2	1.99	0.43
3:F:345:HIS:HE1	2:A:229:ALA:CB	2.31	0.43
2:A:4:ILE:CA	7:p:199:THR:CA	2.81	0.43
2:A:6:ALA:CB	7:p:207:ILE:CG1	2.96	0.43
2:A:13:ILE:N	7:p:213:ASP:CB	2.70	0.43
2:A:14:ARG:HG3	7:p:213:ASP:N	2.25	0.43
4:e:38:ALA:HA	6:M:42:GLN:NE2	2.33	0.43
6:S:43:PRO:HB2	6:T:48:LYS:HZ3	1.49	0.43
6:N:66:TYR:CG	6:M:68:LEU:HD22	2.53	0.43
6:M:62:ALA:O	6:M:63:LEU:C	2.61	0.43
6:T:53:LEU:CD2	6:G:52:THR:HG23	2.48	0.43
6:I:62:ALA:HA	6:I:65:ILE:CG2	2.47	0.43
7:p:189:LEU:CG	8:b:125:LYS:HD2	2.48	0.43
8:b:160:LEU:HD12	8:b:160:LEU:C	2.34	0.43
1:a:42:THR:HG23	1:a:117:TRP:HZ3	1.83	0.43
2:C:261:TYR:CZ	2:C:298:LEU:HD11	2.54	0.43
3:D:330:PRO:CD	3:D:339:PRO:HG3	2.48	0.43
3:F:50:LYS:CE	3:F:92:ILE:CD1	2.96	0.43
3:B:254:LEU:HD21	3:B:312:ARG:HB2	1.99	0.43
3:B:401:LEU:O	3:B:404:ILE:HG12	2.19	0.43
4:e:52:ARG:HA	4:e:57:TRP:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:S:80:PHE:CZ	6:R:81:VAL:CG2	3.01	0.43
6:O:62:ALA:HA	6:O:65:ILE:CG2	2.47	0.43
6:O:81:VAL:HG21	6:P:80:PHE:CZ	2.53	0.43
6:L:20:ALA:HA	6:K:21:SER:OG	2.18	0.43
6:J:70:VAL:HG13	6:I:75:LEU:HD11	2.00	0.43
6:I:5:ILE:HG22	6:I:81:VAL:HG13	2.00	0.43
7:p:127:LEU:HD23	7:p:127:LEU:C	2.43	0.43
7:p:147:VAL:HB	8:b:85:LEU:HD22	1.75	0.43
7:p:214:ILE:HB	7:p:218:VAL:CG1	2.49	0.43
9:d:86:ALA:HB1	9:d:95:THR:CG2	2.48	0.43
9:d:180:VAL:CG2	9:d:223:ILE:HG22	2.42	0.43
1:a:46:VAL:HG12	7:p:100:LEU:HD21	2.00	0.43
1:a:64:ILE:CD1	8:b:61:LEU:CB	2.87	0.43
2:C:140:ARG:NE	3:D:206:THR:HG21	2.32	0.43
3:F:237:GLY:CA	3:F:249:VAL:HG21	2.29	0.43
3:B:261:ARG:HD3	3:B:321:ILE:HD11	1.98	0.43
5:g:121:MET:HB3	5:g:158:ILE:HB	2.00	0.43
6:S:62:ALA:O	6:S:63:LEU:C	2.61	0.43
6:N:62:ALA:O	6:N:63:LEU:C	2.61	0.43
6:P:10:VAL:CG2	6:Q:74:LEU:HD21	2.35	0.43
6:M:74:LEU:HD22	6:L:10:VAL:HG22	1.92	0.43
6:T:62:ALA:O	6:T:63:LEU:C	2.61	0.43
6:L:31:ALA:HA	6:K:33:GLY:CA	2.45	0.43
6:K:20:ALA:HA	6:J:21:SER:OG	2.19	0.43
7:p:130:VAL:HA	8:b:71:ARG:HB3	2.00	0.43
7:p:148:MET:C	8:b:88:VAL:HG21	2.44	0.43
7:p:151:ALA:HB3	8:b:88:VAL:O	1.88	0.43
8:b:48:VAL:HG22	8:b:52:LEU:HD13	2.00	0.43
8:b:60:ILE:C	8:b:63:THR:HG22	2.40	0.43
8:b:88:VAL:C	8:b:90:MET:H	2.24	0.43
1:a:165:ILE:HG21	1:a:169:PRO:O	2.18	0.43
2:C:279:ARG:HH22	5:g:363:CYS:CA	2.25	0.43
3:D:178:LYS:O	3:D:182:ILE:HG13	2.18	0.43
3:D:353:SER:HB3	3:D:356:LEU:HD13	2.00	0.43
2:E:28:ASN:O	2:E:90:LYS:HA	2.18	0.43
2:E:183:THR:O	2:E:187:GLN:HG2	2.18	0.43
7:p:139:GLN:CA	8:b:78:LEU:CD1	2.44	0.43
7:p:144:ALA:HB2	8:b:83:ALA:H	1.84	0.43
7:p:145:ASN:H	8:b:81:ALA:HB1	1.82	0.43
8:b:82:ARG:CA	8:b:85:LEU:HG	2.46	0.43
9:d:102:LEU:HD22	9:d:146:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:d:188:ASN:N	9:d:188:ASN:ND2	2.66	0.43
2:C:157:MET:HA	2:C:384:LYS:HE2	2.00	0.43
2:C:237:TYR:CD2	2:C:274:MET:HE1	2.54	0.43
2:E:185:LEU:HA	2:E:185:LEU:HD23	1.78	0.43
2:E:326:ASP:HA	5:g:343:ARG:NH2	2.32	0.43
2:E:424:PRO:HB3	2:E:455:ARG:HH12	1.83	0.43
2:A:10:SER:N	7:p:206:GLN:NE2	2.67	0.43
2:A:13:ILE:HB	7:p:213:ASP:HB2	1.93	0.43
5:g:149:LYS:CE	5:g:155:TYR:CE1	2.69	0.43
5:g:253:GLU:HB3	5:g:270:MET:CA	2.48	0.43
6:O:53:LEU:CD2	6:P:52:THR:CG2	2.97	0.43
9:d:129:LEU:HD22	9:d:150:ILE:CD1	2.48	0.43
9:d:183:VAL:CG2	9:d:214:ASP:O	2.63	0.43
2:C:128:ARG:HH22	2:C:252:TYR:HE2	1.65	0.43
2:E:39:ILE:HD12	2:E:278:LEU:HD21	1.97	0.43
2:E:413:ARG:CZ	2:E:444:GLY:N	2.82	0.43
5:g:149:LYS:NZ	5:g:155:TYR:CE1	2.76	0.43
6:S:12:ALA:HB2	6:R:11:ILE:HA	2.00	0.43
6:G:62:ALA:O	6:G:63:LEU:C	2.61	0.43
6:K:48:LYS:CD	6:J:46:GLU:OE1	2.66	0.43
6:K:62:ALA:O	6:K:63:LEU:C	2.61	0.43
7:p:107:ILE:O	7:p:111:PRO:HD2	2.18	0.43
8:b:100:TYR:C	8:b:103:ILE:HG22	2.41	0.43
9:d:149:LEU:HD13	9:d:158:VAL:HG22	2.01	0.43
1:a:114:LEU:HD13	8:b:38:LEU:HA	0.55	0.43
1:a:133:ASP:C	1:a:191:PHE:CE1	2.89	0.43
2:C:180:ALA:HB1	2:C:260:ILE:HG21	1.99	0.43
2:E:450:GLU:HB2	2:E:453:GLN:CG	2.48	0.43
5:g:121:MET:HE3	5:g:121:MET:HB2	1.85	0.43
6:R:62:ALA:O	6:R:63:LEU:C	2.61	0.43
6:T:43:PRO:HB3	6:G:48:LYS:CE	2.48	0.43
6:J:3:PRO:HD2	6:J:5:ILE:CD1	2.49	0.43
8:b:165:HIS:HE1	9:d:184:VAL:CG2	2.28	0.43
1:a:116:PRO:C	8:b:31:LEU:CD2	2.91	0.43
2:C:490:LEU:HD23	2:C:494:ILE:HG13	2.01	0.43
3:D:474:PHE:CD1	3:D:483:ALA:HB1	2.54	0.43
3:F:385:TYR:OH	3:F:389:GLN:NE2	2.52	0.43
3:B:403:ASP:OD2	5:g:53:SER:HB3	2.18	0.43
3:B:408:LEU:HB3	3:B:412:GLU:HG3	1.99	0.43
4:e:8:LEU:HD12	5:g:85:PHE:HD2	1.84	0.43
4:e:62:LEU:C	4:e:63:MET:HE2	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:10:VAL:HG21	6:O:74:LEU:HD22	1.93	0.43
6:R:57:LEU:HD23	6:R:60:MET:HE3	2.01	0.43
6:M:80:PHE:CD2	6:L:6:ALA:HB1	2.43	0.43
9:d:222:THR:HG21	9:d:234:ASP:CG	2.42	0.43
2:C:114:LYS:HB2	2:C:114:LYS:HE2	1.79	0.43
3:D:269:LEU:HD13	3:D:271:PHE:CZ	2.54	0.43
2:E:77:MET:HB3	2:E:112:LEU:HD21	2.00	0.43
2:E:107:ARG:NH2	2:E:117:ASP:OD1	2.50	0.43
2:A:4:ILE:CG2	7:p:202:SER:CB	2.92	0.43
2:A:5:ARG:HH21	7:p:200:ILE:HG23	1.22	0.43
2:A:7:ASP:HB2	7:p:203:LEU:CG	2.34	0.43
2:A:82:MET:HE2	2:A:82:MET:CA	2.48	0.43
3:B:64:GLU:O	3:B:76:ALA:HA	2.19	0.43
3:B:412:GLU:OE1	5:g:319:ARG:NH2	2.52	0.43
6:N:3:PRO:HD2	6:N:5:ILE:CD1	2.49	0.43
6:Q:3:PRO:HD2	6:Q:5:ILE:CD1	2.49	0.43
6:M:3:PRO:HD2	6:M:5:ILE:CD1	2.49	0.43
6:M:74:LEU:HD22	6:L:10:VAL:HG21	1.92	0.43
6:G:75:LEU:HD11	6:H:70:VAL:HG13	2.00	0.43
7:p:133:THR:CB	8:b:71:ARG:O	2.42	0.43
8:b:175:MET:O	8:b:179:MET:HG2	2.19	0.43
1:a:65:PRO:CG	1:a:70:ASN:ND2	2.64	0.43
2:C:14:ARG:CB	9:d:85:VAL:HG23	2.49	0.43
3:D:48:ILE:HD12	3:D:94:THR:CG2	2.48	0.43
2:E:227:GLU:HG3	2:E:239:ALA:HB2	2.01	0.43
3:B:186:ILE:O	3:B:190:ALA:CB	2.67	0.43
5:g:265:THR:OG1	5:g:266:VAL:N	2.52	0.43
6:S:9:SER:CB	6:R:10:VAL:HG21	2.48	0.43
6:P:3:PRO:HD2	6:P:5:ILE:CD1	2.49	0.43
6:P:21:SER:OG	6:Q:20:ALA:HA	2.19	0.43
6:P:62:ALA:O	6:P:63:LEU:C	2.61	0.43
6:R:3:PRO:HD2	6:R:5:ILE:CD1	2.49	0.43
6:M:66:TYR:CD1	6:L:68:LEU:HD22	2.54	0.43
6:T:3:PRO:HD2	6:T:5:ILE:CD1	2.49	0.43
6:T:53:LEU:CD2	6:G:52:THR:CG2	2.97	0.43
6:J:9:SER:CB	6:I:10:VAL:HG21	2.49	0.43
7:p:100:LEU:O	7:p:104:LEU:HB3	2.18	0.43
7:p:179:LYS:HD3	7:p:183:VAL:HG23	1.99	0.43
8:b:133:GLN:O	8:b:137:ILE:CG1	2.66	0.43
2:A:17:ILE:O	7:p:217:LYS:CB	2.30	0.42
3:B:57:GLN:OE1	3:B:57:GLN:HA	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:g:130:CYS:HA	5:g:319:ARG:HA	2.01	0.42
6:S:3:PRO:HD2	6:S:5:ILE:CD1	2.49	0.42
6:N:57:LEU:HD23	6:N:60:MET:HE3	2.01	0.42
6:O:3:PRO:HD2	6:O:5:ILE:CD1	2.49	0.42
7:p:171:GLU:HA	8:b:110:LEU:HD23	2.01	0.42
8:b:89:GLU:O	8:b:93:ASP:CG	2.62	0.42
8:b:155:THR:O	8:b:159:CYS:SG	2.75	0.42
9:d:198:VAL:C	9:d:201:ILE:HG12	2.44	0.42
9:d:199:GLN:CD	9:d:207:VAL:HG12	2.40	0.42
1:a:79:ILE:CD1	1:a:99:GLY:HA3	2.41	0.42
1:a:193:ASN:ND2	1:a:227:GLN:CD	2.74	0.42
1:a:239:ILE:O	1:a:242:SER:OG	2.27	0.42
2:C:90:LYS:HG3	2:C:90:LYS:O	2.19	0.42
3:F:251:LEU:HD23	3:F:251:LEU:N	2.35	0.42
3:F:261:ARG:O	3:F:265:GLU:HA	2.19	0.42
3:F:387:ILE:CG2	3:F:388:ALA:N	2.82	0.42
2:A:48:VAL:CG2	2:A:52:GLU:HB3	2.49	0.42
2:A:119:ARG:HB3	8:b:127:GLU:CD	2.44	0.42
2:A:240:PRO:HG2	2:A:267:GLN:NE2	2.34	0.42
4:e:110:ARG:CD	5:g:206:GLU:OE2	2.67	0.42
5:g:239:ILE:HG13	5:g:303:GLN:HE22	1.83	0.42
6:S:48:LYS:HB3	6:R:46:GLU:CD	2.42	0.42
6:S:57:LEU:HD23	6:S:60:MET:HE3	2.01	0.42
6:N:39:ILE:CG1	6:N:49:ILE:HG21	2.50	0.42
6:N:53:LEU:HD23	6:O:52:THR:HG23	2.01	0.42
6:O:39:ILE:CG1	6:O:49:ILE:HG21	2.49	0.42
6:P:57:LEU:HD23	6:P:60:MET:HE3	2.01	0.42
6:R:39:ILE:CG1	6:R:49:ILE:HG21	2.49	0.42
6:T:57:LEU:HD23	6:T:60:MET:HE3	2.01	0.42
6:G:3:PRO:HD2	6:G:5:ILE:CD1	2.49	0.42
6:G:57:LEU:HD23	6:G:60:MET:HE3	2.01	0.42
6:L:63:LEU:HD21	6:K:61:GLU:OE1	2.19	0.42
6:K:3:PRO:HD2	6:K:5:ILE:CD1	2.49	0.42
7:p:127:LEU:HA	8:b:67:SER:HB3	1.46	0.42
9:d:241:LEU:HD23	9:d:244:ILE:HD12	2.02	0.42
3:D:61:VAL:HG13	3:D:80:SER:HB2	2.01	0.42
2:E:196:TYR:HD2	2:E:224:VAL:HG13	1.84	0.42
2:E:247:ALA:HB1	2:E:257:THR:HG21	2.01	0.42
3:B:49:VAL:HG22	3:B:91:VAL:HG22	2.01	0.42
3:B:387:ILE:HD11	3:B:455:ILE:HG12	2.00	0.42
5:g:253:GLU:CA	5:g:270:MET:HA	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Q:57:LEU:HD23	6:Q:60:MET:HE3	2.01	0.42
6:J:39:ILE:CG1	6:J:49:ILE:HG21	2.50	0.42
7:p:159:LEU:HD12	7:p:160:ASN:CA	2.47	0.42
1:a:47:ILE:HG23	7:p:104:LEU:HB2	2.01	0.42
3:D:374:MET:HE3	3:D:374:MET:HB3	1.54	0.42
3:B:408:LEU:HD11	5:g:60:ILE:HG22	2.01	0.42
5:g:212:MET:HE3	5:g:212:MET:HB2	1.78	0.42
6:S:39:ILE:CG1	6:S:49:ILE:HG21	2.50	0.42
6:L:3:PRO:HD2	6:L:5:ILE:CD1	2.49	0.42
6:I:62:ALA:O	6:I:63:LEU:C	2.61	0.42
7:p:140:LEU:HD12	8:b:75:ILE:CA	2.49	0.42
7:p:148:MET:HA	8:b:85:LEU:O	2.18	0.42
7:p:211:SER:OG	8:b:144:VAL:HA	2.19	0.42
7:p:218:VAL:HG12	9:d:243:GLU:HB3	2.02	0.42
1:a:35:ILE:HB	7:p:92:ILE:HB	1.51	0.42
1:a:117:TRP:C	1:a:120:ILE:HG22	2.44	0.42
2:E:154:ILE:HD11	2:E:358:ILE:CD1	2.44	0.42
3:F:221:VAL:CG1	3:F:232:VAL:CB	2.98	0.42
2:A:106:GLY:HA2	2:A:219:MET:O	2.20	0.42
2:A:169:ILE:HD11	2:A:322:THR:HG23	1.98	0.42
3:B:167:LYS:CE	3:B:310:GLN:OE1	2.68	0.42
5:g:186:PRO:HD3	5:g:312:LEU:HD22	2.00	0.42
6:O:57:LEU:HD23	6:O:60:MET:HE3	2.01	0.42
6:H:3:PRO:HD2	6:H:5:ILE:CD1	2.49	0.42
6:I:39:ILE:CG1	6:I:49:ILE:HG21	2.50	0.42
6:I:57:LEU:HD23	6:I:60:MET:HE3	2.01	0.42
7:p:87:ASN:OD1	7:p:89:THR:CG2	2.61	0.42
7:p:144:ALA:HA	8:b:85:LEU:CB	2.49	0.42
8:b:147:GLN:O	8:b:148:ALA:C	2.62	0.42
2:C:393:LEU:HD22	2:C:396:PHE:CE2	2.54	0.42
2:C:432:GLU:H	2:C:432:GLU:CD	2.27	0.42
3:D:417:ASP:O	3:D:421:VAL:HG23	2.19	0.42
2:E:340:ASP:O	2:E:366:ARG:HB2	2.20	0.42
2:E:379:VAL:HG21	2:E:435:VAL:CG2	2.49	0.42
2:E:495:GLN:O	2:E:499:GLU:CG	2.68	0.42
3:B:110:ILE:HD13	3:B:110:ILE:HG21	1.85	0.42
4:e:4:ASN:HB2	4:e:18:GLU:OE2	2.19	0.42
6:N:11:ILE:HA	6:O:12:ALA:HB2	2.02	0.42
6:O:75:LEU:HD11	6:P:70:VAL:HG13	2.01	0.42
6:T:6:ALA:HB1	6:G:80:PHE:CD2	2.48	0.42
6:T:75:LEU:HD21	6:G:74:LEU:HD21	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:10:VAL:HG22	6:I:74:LEU:HD22	1.97	0.42
6:H:57:LEU:HD23	6:H:60:MET:HE3	2.01	0.42
6:L:57:LEU:HD23	6:L:60:MET:HE3	2.01	0.42
6:K:39:ILE:CG1	6:K:49:ILE:HG21	2.50	0.42
6:K:48:LYS:CE	6:J:43:PRO:HB3	2.49	0.42
6:K:57:LEU:HD23	6:K:60:MET:HE3	2.01	0.42
9:d:172:ILE:CG2	9:d:173:THR:N	2.83	0.42
9:d:234:ASP:OD1	9:d:238:LYS:HD2	2.20	0.42
1:a:64:ILE:HD12	8:b:61:LEU:CA	2.50	0.42
2:C:299:LEU:HD23	2:C:299:LEU:HA	1.77	0.42
2:E:132:SER:HB2	2:E:133:PRO:HD2	2.01	0.42
2:E:241:TYR:OH	2:E:294:LEU:O	2.38	0.42
2:A:237:TYR:CZ	2:A:294:LEU:HD11	2.53	0.42
3:B:261:ARG:NH1	3:B:321:ILE:HD12	2.34	0.42
3:B:427:ILE:HD11	3:B:462:LEU:CD2	2.49	0.42
5:g:65:LYS:HD3	5:g:324:SER:HB2	2.02	0.42
5:g:72:VAL:CG2	5:g:316:LEU:HB2	2.50	0.42
5:g:232:PRO:O	5:g:233:LEU:C	2.63	0.42
6:M:39:ILE:CG1	6:M:49:ILE:HG21	2.49	0.42
6:T:10:VAL:HG22	6:G:74:LEU:HD22	1.99	0.42
6:T:39:ILE:CG1	6:T:49:ILE:HG21	2.50	0.42
7:p:132:ASP:HB3	8:b:71:ARG:HD3	2.01	0.42
7:p:143:GLN:C	8:b:82:ARG:HA	2.40	0.42
7:p:144:ALA:HA	7:p:147:VAL:HG12	2.02	0.42
7:p:159:LEU:CD2	8:b:95:PHE:CE2	2.86	0.42
8:b:160:LEU:CD2	8:b:164:LEU:N	2.79	0.42
9:d:180:VAL:HG13	9:d:223:ILE:CG2	2.49	0.42
2:C:379:VAL:CG1	2:C:438:ILE:CB	2.97	0.42
2:E:471:GLU:CB	2:E:489:LEU:HD11	2.46	0.42
2:A:436:MET:CE	2:A:462:ARG:HA	2.50	0.42
6:O:42:GLN:NE2	6:O:44:GLU:HB3	2.32	0.42
6:M:57:LEU:HD23	6:M:60:MET:HE3	2.01	0.42
6:K:52:THR:HG23	6:J:53:LEU:CD2	2.50	0.42
6:J:57:LEU:HD23	6:J:60:MET:HE3	2.01	0.42
7:p:155:ILE:HG12	8:b:96:ARG:HB3	1.99	0.42
7:p:211:SER:C	8:b:148:ALA:HB2	2.40	0.42
8:b:160:LEU:HD11	8:b:164:LEU:N	0.39	0.42
3:D:293:PRO:HG2	5:g:353:ILE:CG2	2.38	0.42
3:D:395:LEU:HD23	3:D:395:LEU:HA	1.87	0.42
3:F:221:VAL:HG12	3:F:232:VAL:CB	2.49	0.42
3:F:251:LEU:HD23	3:F:309:LEU:CD1	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:261:ARG:HG3	3:F:319:GLY:HA3	2.02	0.42
2:A:3:THR:CB	7:p:196:LYS:C	2.93	0.42
2:A:8:GLU:N	7:p:203:LEU:HD21	2.35	0.42
2:A:12:ILE:HB	7:p:210:LEU:HD22	2.02	0.42
2:A:237:TYR:HE1	2:A:271:TYR:CG	2.34	0.42
2:A:237:TYR:CZ	2:A:271:TYR:CD1	3.06	0.42
2:A:342:GLN:HG3	2:A:344:PHE:CE2	2.55	0.42
4:e:43:ALA:O	5:g:286:GLN:NE2	2.52	0.42
6:Q:39:ILE:CG1	6:Q:49:ILE:HG21	2.50	0.42
6:G:43:PRO:HB2	6:H:48:LYS:HZ2	1.81	0.42
7:p:137:VAL:O	8:b:77:GLN:C	2.59	0.42
8:b:105:ARG:O	8:b:108:MET:HB2	2.19	0.42
1:a:123:PRO:HG2	8:b:23:ASN:H	0.84	0.42
1:a:166:GLN:N	1:a:167:PRO:CD	2.82	0.42
2:C:148:GLN:O	2:C:186:ASN:ND2	2.49	0.42
2:C:176:LYS:HG2	2:C:345:LEU:HD12	2.02	0.42
2:C:264:LEU:HD23	2:C:264:LEU:HA	1.83	0.42
3:D:119:ASP:O	3:D:120:ASN:HB3	2.19	0.42
2:E:420:LEU:HD22	2:E:437:THR:CG2	2.50	0.42
2:A:3:THR:HB	7:p:196:LYS:O	2.08	0.42
2:A:392:GLU:CD	3:B:429:ARG:CZ	2.92	0.42
5:g:123:VAL:CG2	5:g:308:LEU:CD2	2.98	0.42
6:T:29:GLY:O	6:G:31:ALA:HB2	2.19	0.42
6:T:46:GLU:OE1	6:G:48:LYS:HD3	2.19	0.42
6:H:39:ILE:CG1	6:H:49:ILE:HG21	2.50	0.42
1:a:103:LEU:CB	7:p:109:TYR:HH	2.21	0.41
1:a:126:GLU:O	1:a:126:GLU:HG2	2.19	0.41
2:C:390:PHE:CE2	2:C:418:ARG:CD	2.99	0.41
3:D:387:ILE:CG2	3:D:388:ALA:N	2.83	0.41
5:g:43:ASN:O	5:g:47:LEU:HG	2.20	0.41
7:p:192:LEU:HB3	8:b:129:ILE:HG12	1.75	0.41
1:a:30:ILE:HG23	1:a:32:GLY:H	1.83	0.41
1:a:63:THR:O	7:p:123:ILE:CD1	2.68	0.41
1:a:77:GLU:OE1	8:b:56:ARG:HD2	2.20	0.41
1:a:172:LEU:N	1:a:173:PRO:CD	2.82	0.41
2:E:7:ASP:CB	9:d:104:ARG:HH11	2.33	0.41
3:B:191:LYS:HE3	3:B:219:SER:CB	2.41	0.41
3:B:463:SER:OG	3:B:465:GLU:HG3	2.20	0.41
4:e:4:ASN:HB3	4:e:18:GLU:CD	2.44	0.41
4:e:42:THR:HG22	5:g:285:GLU:CB	2.46	0.41
6:N:29:GLY:O	6:O:31:ALA:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:P:68:LEU:HD22	6:Q:66:TYR:CG	2.55	0.41
7:p:141:GLU:N	8:b:78:LEU:N	2.30	0.41
1:a:39:VAL:C	7:p:93:ILE:CD1	2.93	0.41
1:a:51:LEU:HD23	7:p:104:LEU:HD12	2.01	0.41
1:a:123:PRO:HG2	8:b:22:PHE:CD2	2.55	0.41
2:C:98:ILE:CD1	2:C:242:THR:HG23	2.47	0.41
3:D:124:VAL:CG1	3:D:126:THR:CG2	2.98	0.41
2:E:7:ASP:OD1	2:E:8:GLU:N	2.53	0.41
2:E:164:GLN:CD	2:E:367:VAL:CG2	2.92	0.41
2:E:282:PRO:HB2	2:E:286:ALA:HA	2.02	0.41
2:A:5:ARG:C	7:p:203:LEU:HB3	2.45	0.41
3:B:61:VAL:HG21	3:B:85:LEU:HD11	2.02	0.41
4:e:62:LEU:HD12	4:e:62:LEU:O	2.20	0.41
6:O:44:GLU:O	6:O:44:GLU:CD	2.63	0.41
6:P:39:ILE:CG1	6:P:49:ILE:HG21	2.50	0.41
6:M:52:THR:HG23	6:L:53:LEU:HD23	2.02	0.41
6:T:46:GLU:OE1	6:G:48:LYS:CD	2.67	0.41
6:K:48:LYS:NZ	6:J:43:PRO:C	2.71	0.41
8:b:31:LEU:HD12	8:b:32:ILE:HD13	2.03	0.41
2:C:17:ILE:N	9:d:148:ILE:CD1	2.83	0.41
2:C:302:ALA:CB	2:C:314:MET:CG	2.97	0.41
3:D:296:VAL:CA	5:g:350:THR:OG1	2.65	0.41
2:E:154:ILE:CD1	2:E:358:ILE:HD13	2.48	0.41
2:E:359:ASN:O	2:E:363:SER:OG	2.32	0.41
3:F:386:GLU:O	3:F:390:ARG:HG3	2.19	0.41
2:A:20:TYR:CE1	9:d:242:GLU:CD	2.97	0.41
2:A:178:ALA:O	2:A:182:ASP:CG	2.63	0.41
2:A:392:GLU:OE2	3:B:429:ARG:NH2	2.50	0.41
3:B:79:MET:HE1	3:B:248:ARG:HG3	2.02	0.41
4:e:48:ILE:HA	4:e:61:ALA:HA	2.02	0.41
4:e:51:ILE:O	4:e:51:ILE:CG2	2.67	0.41
5:g:71:LYS:HB3	5:g:316:LEU:CD1	2.49	0.41
7:p:141:GLU:HB2	8:b:77:GLN:HG2	1.48	0.41
7:p:185:LEU:HD22	8:b:121:PHE:CG	2.39	0.41
8:b:104:GLU:O	8:b:108:MET:HG3	2.20	0.41
1:a:71:PHE:HE1	8:b:49:LEU:HD13	1.63	0.41
2:C:7:ASP:OD2	2:C:70:ASN:C	2.63	0.41
2:C:20:TYR:OH	9:d:151:ASP:HB2	2.21	0.41
3:D:334:LEU:HD22	3:D:343:PHE:CE2	2.56	0.41
2:E:97:GLN:HG2	2:E:129:LEU:HD23	2.03	0.41
2:E:420:LEU:CD2	2:E:458:LEU:CD1	2.97	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:436:MET:HG3	2:E:490:LEU:HD13	1.98	0.41
2:A:170:GLY:O	2:A:321:GLU:HA	2.21	0.41
3:B:227:ILE:HD12	3:B:227:ILE:HA	1.94	0.41
6:O:33:GLY:CA	6:P:31:ALA:HA	2.50	0.41
6:R:62:ALA:HA	6:R:65:ILE:HG22	2.03	0.41
6:G:25:GLY:O	6:H:27:GLY:HA3	2.20	0.41
8:b:155:THR:O	8:b:159:CYS:N	2.53	0.41
8:b:162:ASN:O	8:b:166:LEU:CB	2.69	0.41
9:d:92:LEU:HD11	9:d:172:ILE:CD1	2.50	0.41
2:C:433:GLU:HA	2:C:436:MET:HE3	2.02	0.41
2:E:7:ASP:CB	9:d:104:ARG:NH1	2.84	0.41
3:F:462:LEU:HD23	3:F:462:LEU:HA	1.78	0.41
2:A:10:SER:HB2	7:p:205:SER:O	2.20	0.41
2:A:13:ILE:HG22	7:p:213:ASP:CA	2.50	0.41
2:A:13:ILE:HG21	7:p:211:SER:HA	2.03	0.41
2:A:126:GLU:OE2	2:A:253:ARG:NH2	2.54	0.41
2:A:237:TYR:CE1	2:A:271:TYR:CB	3.03	0.41
3:B:29:PRO:HD2	3:B:288:LEU:CD1	2.51	0.41
5:g:253:GLU:OE1	5:g:253:GLU:N	2.53	0.41
6:M:51:GLY:C	6:L:50:ARG:HH21	2.28	0.41
6:J:66:TYR:HD2	6:I:64:THR:HG22	1.85	0.41
9:d:217:LEU:HD23	9:d:236:SER:HG	1.83	0.41
1:a:39:VAL:C	7:p:93:ILE:HD13	2.44	0.41
2:C:10:SER:O	2:C:10:SER:OG	2.38	0.41
2:C:322:THR:HG22	2:C:332:PRO:CG	2.51	0.41
3:D:405:ILE:CG1	3:D:413:LEU:HD11	2.47	0.41
3:D:415:GLU:O	3:D:419:LEU:HG	2.21	0.41
2:E:432:GLU:CA	2:E:435:VAL:HG12	2.51	0.41
3:F:63:CYS:HB3	3:F:76:ALA:HB1	2.03	0.41
3:F:246:ARG:NH2	3:F:284:GLU:OE1	2.53	0.41
2:A:11:LYS:O	7:p:213:ASP:OD2	2.38	0.41
5:g:253:GLU:CB	5:g:270:MET:CA	2.99	0.41
6:Q:81:VAL:CG2	6:R:80:PHE:CZ	3.04	0.41
6:G:39:ILE:CG1	6:G:49:ILE:HG21	2.50	0.41
6:L:39:ILE:CG1	6:L:49:ILE:HG21	2.49	0.41
6:L:65:ILE:HD12	6:L:68:LEU:HD23	2.03	0.41
6:K:52:THR:CG2	6:J:53:LEU:CD2	2.99	0.41
8:b:85:LEU:CD1	8:b:86:LYS:N	2.68	0.41
1:a:217:MET:HG2	8:b:37:VAL:HG21	2.02	0.41
2:C:117:ASP:OD1	2:C:117:ASP:N	2.49	0.41
3:D:238:GLN:HB2	3:D:241:GLU:HG2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:151:LEU:N	2:E:151:LEU:HD12	2.36	0.41
2:E:495:GLN:HA	2:E:498:MET:HE3	2.03	0.41
3:F:183:MET:HE1	3:F:212:LEU:HD22	2.02	0.41
3:F:412:GLU:O	3:F:413:LEU:C	2.64	0.41
3:F:464:GLY:C	3:F:466:LEU:N	2.75	0.41
2:A:14:ARG:HG2	7:p:213:ASP:C	2.45	0.41
2:A:81:LEU:C	2:A:82:MET:HE2	2.45	0.41
2:A:235:LEU:HD23	2:A:235:LEU:HA	1.75	0.41
3:B:189:ILE:HG22	3:B:269:LEU:CD1	2.34	0.41
3:B:462:LEU:HD23	3:B:462:LEU:HA	1.73	0.41
4:e:34:LEU:CB	6:L:42:GLN:HE21	2.22	0.41
6:S:55:LEU:HD21	6:R:54:LEU:HD11	1.99	0.41
6:N:50:ARG:HG2	6:N:54:LEU:HD13	2.03	0.41
6:N:65:ILE:HD12	6:N:68:LEU:HD23	2.03	0.41
6:P:65:ILE:HD12	6:P:68:LEU:HD23	2.03	0.41
6:Q:50:ARG:HG2	6:Q:54:LEU:HD13	2.03	0.41
6:R:65:ILE:HD12	6:R:68:LEU:HD23	2.03	0.41
6:M:55:LEU:HD21	6:L:54:LEU:HG	2.03	0.41
6:L:62:ALA:HA	6:L:65:ILE:HG22	2.03	0.41
1:a:207:LEU:CD1	6:H:76:PHE:CD2	2.97	0.41
2:C:199:ILE:HG12	2:C:240:PRO:HD3	2.03	0.41
2:C:324:ALA:CB	5:g:45:ARG:HD3	2.51	0.41
2:C:439:TYR:CZ	2:C:487:GLU:HG3	2.55	0.41
2:C:465:VAL:O	2:C:465:VAL:HG12	2.20	0.41
3:D:48:ILE:HD12	3:D:94:THR:HG22	2.02	0.41
3:D:50:LYS:NZ	3:D:92:ILE:CD1	2.81	0.41
3:F:151:THR:HG22	3:F:189:ILE:HD11	2.02	0.41
3:F:182:ILE:O	3:F:186:ILE:HG13	2.21	0.41
3:F:231:LYS:O	3:F:232:VAL:HG23	2.21	0.41
3:F:251:LEU:HD21	3:F:309:LEU:HD13	1.93	0.41
2:A:29:THR:OG1	9:d:230:SER:O	2.31	0.41
2:A:46:ASP:OD2	9:d:227:ASN:HB2	2.20	0.41
2:A:109:ILE:HD11	2:A:246:LEU:CD1	2.50	0.41
2:A:387:LEU:HD11	2:A:421:LEU:HD11	2.02	0.41
3:B:168:ILE:CD1	3:B:324:ILE:HG12	2.51	0.41
3:B:246:ARG:NH2	3:B:284:GLU:OE1	2.54	0.41
3:B:405:ILE:O	3:B:409:GLY:N	2.53	0.41
4:e:26:THR:HG23	4:e:29:GLY:H	1.86	0.41
4:e:38:ALA:CB	6:L:41:ARG:CA	2.81	0.41
4:e:52:ARG:CG	4:e:57:TRP:HB3	2.50	0.41
5:g:83:ARG:HH21	5:g:273:THR:HG22	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:g:206:GLU:HG3	5:g:207:VAL:HG23	2.02	0.41
5:g:227:ILE:HG21	5:g:242:ILE:HD11	2.02	0.41
5:g:337:LEU:HD23	5:g:337:LEU:HA	1.86	0.41
6:S:50:ARG:HG2	6:S:54:LEU:HD13	2.03	0.41
6:S:62:ALA:HA	6:S:65:ILE:HG22	2.03	0.41
6:P:50:ARG:HG2	6:P:54:LEU:HD13	2.03	0.41
6:M:50:ARG:HG2	6:M:54:LEU:HD13	2.03	0.41
6:M:65:ILE:HD12	6:M:68:LEU:HD23	2.03	0.41
6:G:65:ILE:HD12	6:G:68:LEU:HD23	2.03	0.41
6:H:53:LEU:CD2	6:I:52:THR:CG2	2.99	0.41
6:K:62:ALA:HA	6:K:65:ILE:HG22	2.03	0.41
6:K:65:ILE:HD12	6:K:68:LEU:HD23	2.03	0.41
6:K:80:PHE:CD2	6:J:6:ALA:HB1	2.49	0.41
6:J:65:ILE:HD12	6:J:68:LEU:HD23	2.03	0.41
6:I:65:ILE:HD12	6:I:68:LEU:HD23	2.03	0.41
7:p:87:ASN:OD1	7:p:87:ASN:C	2.64	0.41
7:p:127:LEU:CD1	8:b:63:THR:HA	2.48	0.41
8:b:87:LYS:O	8:b:90:MET:N	2.53	0.41
9:d:169:PHE:CD1	9:d:169:PHE:C	2.96	0.41
1:a:163:LYS:HE2	1:a:179:ASP:CB	2.51	0.41
1:a:212:VAL:N	1:a:213:PRO:HD2	2.36	0.41
2:E:273:GLN:O	2:E:277:LEU:HG	2.21	0.41
2:E:417:LEU:HD23	2:E:417:LEU:HA	1.79	0.41
2:E:439:TYR:CD2	2:E:490:LEU:HD23	2.56	0.41
3:F:142:LEU:HD21	3:F:314:THR:HG21	2.02	0.41
2:A:13:ILE:CD1	8:b:144:VAL:C	2.94	0.41
2:A:24:VAL:HG23	2:A:24:VAL:O	2.11	0.41
3:B:182:ILE:CG2	3:B:183:MET:N	2.83	0.41
4:e:22:ILE:HG13	4:e:33:VAL:HG21	1.70	0.41
6:N:54:LEU:CG	6:O:55:LEU:HD21	2.51	0.41
6:Q:65:ILE:HD12	6:Q:68:LEU:HD23	2.03	0.41
6:R:50:ARG:HG2	6:R:54:LEU:HD13	2.03	0.41
6:T:65:ILE:HD12	6:T:68:LEU:HD23	2.03	0.41
6:H:21:SER:OG	6:I:20:ALA:HA	2.21	0.41
6:H:32:ALA:O	6:H:36:VAL:HG23	2.21	0.41
7:p:136:GLU:O	7:p:140:LEU:HG	2.21	0.41
1:a:36:HIS:HB2	7:p:89:THR:OG1	2.13	0.40
1:a:51:LEU:HD23	7:p:108:TYR:CB	2.46	0.40
2:C:137:ILE:HG23	2:C:138:MET:N	2.37	0.40
2:C:469:LYS:CE	2:C:493:ALA:HA	2.51	0.40
2:E:194:CYS:O	2:E:222:THR:HA	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:168:ILE:HB	3:F:324:ILE:HA	2.03	0.40
2:A:7:ASP:O	7:p:206:GLN:CA	2.62	0.40
2:A:44:GLY:HA2	9:d:228:GLU:HG3	2.02	0.40
2:A:120:GLY:N	8:b:131:PHE:CD1	2.89	0.40
3:B:273:ASP:HA	3:B:274:ASN:HA	1.86	0.40
3:B:353:SER:HB2	3:B:366:ASP:HB2	2.02	0.40
6:N:25:GLY:O	6:O:27:GLY:HA3	2.21	0.40
6:O:50:ARG:HG2	6:O:54:LEU:HD13	2.03	0.40
6:O:65:ILE:HD12	6:O:68:LEU:HD23	2.03	0.40
6:M:62:ALA:HA	6:M:65:ILE:HG22	2.03	0.40
6:G:50:ARG:HG2	6:G:54:LEU:HD13	2.03	0.40
6:H:81:VAL:CG2	6:I:80:PHE:CE2	3.01	0.40
7:p:134:SER:HA	8:b:74:ALA:N	2.12	0.40
7:p:148:MET:SD	8:b:88:VAL:HG23	2.60	0.40
7:p:171:GLU:HA	8:b:110:LEU:HD21	2.02	0.40
1:a:27:TYR:OH	1:a:122:LEU:HD11	2.18	0.40
2:C:137:ILE:CD1	3:D:236:TYR:CE2	3.04	0.40
2:C:503:LEU:O	2:C:504:GLN:CG	2.70	0.40
3:D:19:ASN:CG	3:D:39:LYS:HB3	2.47	0.40
2:E:379:VAL:HG12	2:E:438:ILE:HG22	2.00	0.40
2:A:119:ARG:CB	8:b:127:GLU:HG2	2.45	0.40
4:e:110:ARG:HB3	5:g:204:SER:OG	2.20	0.40
5:g:104:ASP:HB2	6:S:41:ARG:HH22	1.85	0.40
6:Q:62:ALA:HA	6:Q:65:ILE:HG22	2.03	0.40
6:T:54:LEU:HD11	6:G:55:LEU:HD21	1.99	0.40
6:H:65:ILE:HD12	6:H:68:LEU:HD23	2.03	0.40
6:L:32:ALA:O	6:L:36:VAL:HG23	2.21	0.40
6:L:50:ARG:HG2	6:L:54:LEU:HD13	2.03	0.40
6:K:50:ARG:HG2	6:K:54:LEU:HD13	2.03	0.40
6:J:50:ARG:HG2	6:J:54:LEU:HD13	2.03	0.40
7:p:90:LEU:CB	7:p:91:PRO:CD	2.96	0.40
3:D:50:LYS:HB2	3:D:90:GLU:HG3	2.04	0.40
3:D:63:CYS:HB3	3:D:76:ALA:HB1	2.03	0.40
3:D:163:ARG:CG	3:D:374:MET:HG3	2.51	0.40
3:D:186:ILE:HG21	3:D:221:VAL:HG11	2.01	0.40
3:D:195:GLY:HA2	3:D:266:GLN:HB3	2.04	0.40
2:E:137:ILE:HD11	3:F:209:GLY:C	2.47	0.40
3:F:410:LEU:CD2	3:F:413:LEU:HD12	2.49	0.40
2:A:29:THR:O	9:d:230:SER:O	2.40	0.40
3:B:103:GLY:O	3:B:106:THR:OG1	2.32	0.40
4:e:23:ILE:CD1	6:K:42:GLN:NE2	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:88:ASP:HA	4:e:89:PRO:HD3	1.95	0.40
6:S:46:GLU:OE1	6:T:48:LYS:HD3	2.20	0.40
6:T:50:ARG:HG2	6:T:54:LEU:HD13	2.03	0.40
6:T:81:VAL:CG2	6:G:80:PHE:CZ	3.05	0.40
6:H:50:ARG:HG2	6:H:54:LEU:HD13	2.03	0.40
6:J:49:ILE:HD11	6:I:40:ALA:CB	2.45	0.40
6:I:32:ALA:O	6:I:36:VAL:HG23	2.21	0.40
6:I:50:ARG:HG2	6:I:54:LEU:HD13	2.03	0.40
9:d:241:LEU:HD23	9:d:241:LEU:HA	1.77	0.40
1:a:27:TYR:OH	1:a:122:LEU:HG	2.18	0.40
1:a:121:GLN:HG3	8:b:25:ASP:HA	1.31	0.40
3:D:247:MET:SD	3:D:282:GLY:HA2	2.60	0.40
2:E:460:GLU:HA	2:E:460:GLU:OE1	2.21	0.40
3:F:353:SER:HB2	3:F:366:ASP:HB2	2.03	0.40
2:A:12:ILE:HG21	8:b:141:ARG:CD	2.49	0.40
2:A:376:MET:O	2:A:376:MET:HG3	2.20	0.40
5:g:227:ILE:HG23	5:g:242:ILE:CG1	2.51	0.40
5:g:227:ILE:CG2	5:g:242:ILE:HD11	2.51	0.40
5:g:273:THR:O	5:g:273:THR:OG1	2.38	0.40
6:M:32:ALA:O	6:M:36:VAL:HG23	2.21	0.40
6:T:35:ALA:HB2	6:T:53:LEU:HD13	2.04	0.40
6:J:62:ALA:HA	6:J:65:ILE:HG22	2.03	0.40
7:p:133:THR:HG22	8:b:71:ARG:NH2	1.87	0.40
7:p:169:GLU:CG	8:b:107:LYS:NZ	2.85	0.40
7:p:205:SER:O	7:p:206:GLN:C	2.64	0.40
8:b:61:LEU:HD13	8:b:65:ARG:CD	2.44	0.40
9:d:222:THR:HB	9:d:234:ASP:HB3	2.01	0.40
2:C:67:LEU:HD23	2:C:72:VAL:HG13	2.04	0.40
3:D:297:GLY:CA	5:g:353:ILE:HD13	2.32	0.40
2:E:344:PHE:CE2	2:E:362:ILE:CG2	3.02	0.40
3:F:258:GLU:CD	3:F:312:ARG:HH21	2.30	0.40
2:A:14:ARG:HH12	7:p:216:LYS:CG	2.23	0.40
2:A:177:THR:O	2:A:177:THR:HG22	2.21	0.40
2:A:403:LEU:C	2:A:403:LEU:HD12	2.47	0.40
3:B:491:GLU:HG2	3:B:495:LYS:HE3	2.03	0.40
6:N:35:ALA:HB2	6:N:53:LEU:HD13	2.04	0.40
6:P:35:ALA:HB2	6:P:53:LEU:HD13	2.04	0.40
6:M:31:ALA:HA	6:L:33:GLY:CA	2.51	0.40
6:G:32:ALA:O	6:G:36:VAL:HG23	2.21	0.40
6:H:3:PRO:HA	6:I:5:ILE:HD11	2.03	0.40
6:K:32:ALA:O	6:K:36:VAL:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:p:130:VAL:O	8:b:71:ARG:CA	2.66	0.40
9:d:198:VAL:O	9:d:202:THR:N	2.44	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	221/247 (90%)	211 (96%)	10 (4%)	0	100	100
2	A	500/507 (99%)	483 (97%)	17 (3%)	0	100	100
2	C	499/507 (98%)	483 (97%)	16 (3%)	0	100	100
2	E	495/507 (98%)	480 (97%)	15 (3%)	0	100	100
3	B	478/498 (96%)	463 (97%)	14 (3%)	1 (0%)	44	77
3	D	477/498 (96%)	463 (97%)	13 (3%)	1 (0%)	44	77
3	F	476/498 (96%)	445 (94%)	30 (6%)	1 (0%)	44	77
4	e	129/134 (96%)	122 (95%)	7 (5%)	0	100	100
5	g	319/364 (88%)	306 (96%)	13 (4%)	0	100	100
6	G	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	H	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	I	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	J	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	K	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	L	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	M	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	N	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	O	77/81 (95%)	74 (96%)	3 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	P	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	Q	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	R	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	S	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
6	T	77/81 (95%)	74 (96%)	3 (4%)	0	100	100
7	p	141/222 (64%)	130 (92%)	11 (8%)	0	100	100
8	b	157/184 (85%)	151 (96%)	6 (4%)	0	100	100
9	d	177/257 (69%)	170 (96%)	6 (3%)	1 (1%)	22	59
All	All	5147/5557 (93%)	4943 (96%)	200 (4%)	4 (0%)	50	82

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
9	d	217	LEU
3	F	296	VAL
3	D	296	VAL
3	B	296	VAL

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	187/207 (90%)	187 (100%)	0	100	100
2	A	411/414 (99%)	411 (100%)	0	100	100
2	C	410/414 (99%)	409 (100%)	1 (0%)	92	94
2	E	407/414 (98%)	407 (100%)	0	100	100
3	B	391/408 (96%)	390 (100%)	1 (0%)	91	92
3	D	390/408 (96%)	387 (99%)	3 (1%)	79	84
3	F	389/408 (95%)	389 (100%)	0	100	100
4	e	109/112 (97%)	109 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	g	276/315 (88%)	275 (100%)	1 (0%)	89 91
6	G	51/53 (96%)	51 (100%)	0	100 100
6	H	51/53 (96%)	51 (100%)	0	100 100
6	I	51/53 (96%)	51 (100%)	0	100 100
6	J	51/53 (96%)	51 (100%)	0	100 100
6	K	51/53 (96%)	51 (100%)	0	100 100
6	L	51/53 (96%)	51 (100%)	0	100 100
6	M	51/53 (96%)	51 (100%)	0	100 100
6	N	51/53 (96%)	51 (100%)	0	100 100
6	O	51/53 (96%)	51 (100%)	0	100 100
6	P	51/53 (96%)	51 (100%)	0	100 100
6	Q	51/53 (96%)	51 (100%)	0	100 100
6	R	51/53 (96%)	51 (100%)	0	100 100
6	S	51/53 (96%)	51 (100%)	0	100 100
6	T	51/53 (96%)	51 (100%)	0	100 100
7	p	124/197 (63%)	124 (100%)	0	100 100
8	b	142/161 (88%)	142 (100%)	0	100 100
9	d	156/220 (71%)	156 (100%)	0	100 100
All	All	4106/4420 (93%)	4100 (100%)	6 (0%)	92 94

All (6) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	C	298	LEU
3	D	222	ILE
3	D	374	MET
3	D	433	GLN
3	B	279	VAL
5	g	292	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (72) such sidechains are listed below:

Mol	Chain	Res	Type
1	a	24	GLN
1	a	34	GLN

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Mol	Chain	Res	Type
1	a	70	ASN
1	a	86	GLN
1	a	193	ASN
1	a	227	GLN
2	C	34	GLN
2	C	70	ASN
2	C	148	GLN
2	C	208	GLN
3	D	25	GLN
3	D	264	ASN
3	D	280	GLN
3	D	310	GLN
3	D	384	HIS
2	E	66	ASN
2	E	148	GLN
2	E	186	ASN
2	E	187	GLN
2	E	188	GLN
2	E	201	GLN
2	E	214	GLN
2	E	256	HIS
2	E	409	ASN
2	E	423	GLN
2	E	497	GLN
3	F	112	ASN
3	F	210	ASN
3	F	238	GLN
3	F	345	HIS
3	F	389	GLN
2	A	187	GLN
2	A	267	GLN
2	A	408	GLN
2	A	409	ASN
2	A	423	GLN
3	B	60	ASN
3	B	67	GLN
3	B	71	ASN
3	B	72	ASN
3	B	389	GLN
4	e	27	ASN
5	g	81	ASN
5	g	228	HIS

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Mol	Chain	Res	Type
5	g	303	GLN
5	g	346	GLN
5	g	361	ASN
6	S	42	GLN
6	N	28	GLN
6	N	42	GLN
6	O	42	GLN
6	P	42	GLN
6	Q	42	GLN
6	R	28	GLN
6	R	42	GLN
6	M	42	GLN
6	T	28	GLN
6	T	42	GLN
6	G	42	GLN
6	H	42	GLN
6	L	42	GLN
6	K	42	GLN
6	J	42	GLN
6	I	42	GLN
7	p	167	GLN
8	b	30	ASN
8	b	161	ASN
8	b	165	HIS
9	d	141	HIS
9	d	170	ASN
9	d	188	ASN
9	d	199	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 10 ligands modelled in this entry, 5 are monoatomic - leaving 5 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
12	ADP	B	501	10	24,29,29	1.32	3 (12%)	29,45,45	1.48	4 (13%)
11	ATP	E	600	10	26,33,33	1.07	1 (3%)	31,52,52	1.36	4 (12%)
11	ATP	A	600	10	26,33,33	0.96	1 (3%)	31,52,52	1.52	6 (19%)
11	ATP	C	602	10	26,33,33	1.20	3 (11%)	31,52,52	1.53	7 (22%)
12	ADP	F	600	10	24,29,29	1.09	1 (4%)	29,45,45	1.48	4 (13%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
12	ADP	B	501	10	-	5/12/32/32	0/3/3/3
11	ATP	E	600	10	-	3/18/38/38	0/3/3/3
11	ATP	A	600	10	-	0/18/38/38	0/3/3/3
11	ATP	C	602	10	-	4/18/38/38	0/3/3/3
12	ADP	F	600	10	-	5/12/32/32	0/3/3/3

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	B	501	ADP	C2'-C1'	-2.73	1.49	1.53
11	C	602	ATP	C2'-C1'	-2.57	1.49	1.53
12	F	600	ADP	C2'-C1'	-2.35	1.50	1.53
12	B	501	ADP	PB-O3B	-2.24	1.46	1.54
11	C	602	ATP	PG-O2G	-2.18	1.46	1.54
11	A	600	ATP	C2'-C1'	-2.16	1.50	1.53
11	E	600	ATP	C5-C4	2.06	1.46	1.40
12	B	501	ADP	O4'-C4'	-2.06	1.40	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	C	602	ATP	PG-O3G	-2.04	1.47	1.54

All (25) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	C	602	ATP	N3-C2-N1	-3.95	122.51	128.68
12	B	501	ADP	N3-C2-N1	-3.86	122.64	128.68
11	E	600	ATP	N3-C2-N1	-3.47	123.25	128.68
11	A	600	ATP	N3-C2-N1	-3.46	123.26	128.68
12	F	600	ADP	C3'-C2'-C1'	3.27	105.90	100.98
12	F	600	ADP	N3-C2-N1	-3.26	123.59	128.68
12	F	600	ADP	PA-O3A-PB	-3.25	121.68	132.83
11	C	602	ATP	C4-C5-N7	-3.18	106.09	109.40
11	A	600	ATP	C4-C5-N7	-2.67	106.61	109.40
11	E	600	ATP	O2B-PB-O1B	2.58	125.02	112.24
11	A	600	ATP	C2-N1-C6	2.55	123.11	118.75
12	B	501	ADP	C4-C5-N7	-2.53	106.77	109.40
11	C	602	ATP	C2-N1-C6	2.52	123.06	118.75
11	A	600	ATP	C3'-C2'-C1'	2.43	104.64	100.98
11	C	602	ATP	C3'-C2'-C1'	2.43	104.64	100.98
12	F	600	ADP	C4-C5-N7	-2.42	106.88	109.40
12	B	501	ADP	C2-N1-C6	2.33	122.75	118.75
12	B	501	ADP	O3B-PB-O2B	2.27	116.33	107.64
11	A	600	ATP	PB-O3B-PG	-2.24	125.13	132.83
11	E	600	ATP	C2-N1-C6	2.21	122.54	118.75
11	A	600	ATP	C1'-N9-C4	-2.20	122.78	126.64
11	C	602	ATP	O2B-PB-O1B	2.17	122.98	112.24
11	C	602	ATP	PB-O3B-PG	-2.11	125.59	132.83
11	C	602	ATP	C5'-C4'-C3'	-2.07	107.43	115.18
11	E	600	ATP	O4'-C1'-C2'	-2.05	103.92	106.93

There are no chirality outliers.

All (17) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
12	F	600	ADP	C5'-O5'-PA-O2A
12	B	501	ADP	C5'-O5'-PA-O1A
12	B	501	ADP	C5'-O5'-PA-O2A
12	F	600	ADP	O4'-C4'-C5'-O5'
12	F	600	ADP	C3'-C4'-C5'-O5'
11	E	600	ATP	PB-O3B-PG-O1G
11	E	600	ATP	PB-O3B-PG-O2G

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Mol	Chain	Res	Type	Atoms
12	F	600	ADP	C5'-O5'-PA-O3A
11	C	602	ATP	PG-O3B-PB-O2B
11	C	602	ATP	PA-O3A-PB-O2B
12	B	501	ADP	PB-O3A-PA-O2A
12	F	600	ADP	C5'-O5'-PA-O1A
12	B	501	ADP	O4'-C4'-C5'-O5'
11	C	602	ATP	PA-O3A-PB-O1B
11	E	600	ATP	PA-O3A-PB-O2B
12	B	501	ADP	C5'-O5'-PA-O3A
11	C	602	ATP	PG-O3B-PB-O1B

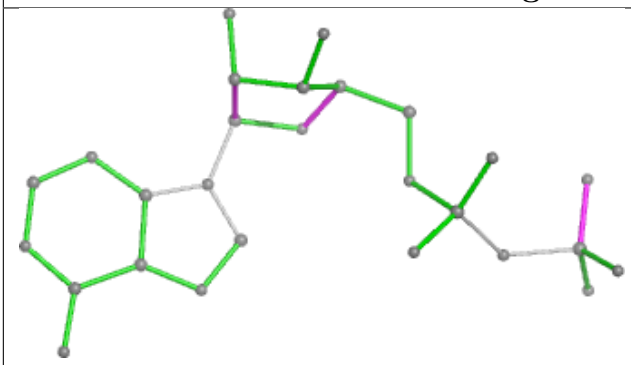
There are no ring outliers.

4 monomers are involved in 5 short contacts:

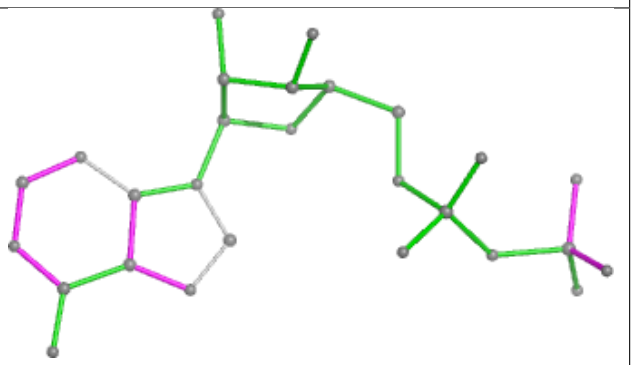
Mol	Chain	Res	Type	Clashes	Symm-Clashes
12	B	501	ADP	2	0
11	E	600	ATP	1	0
11	A	600	ATP	1	0
11	C	602	ATP	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

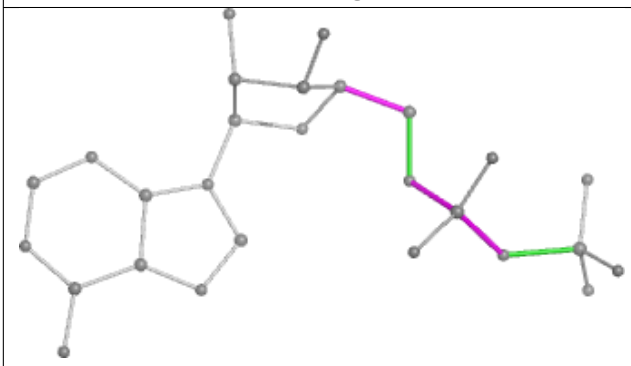
Ligand ADP B 501



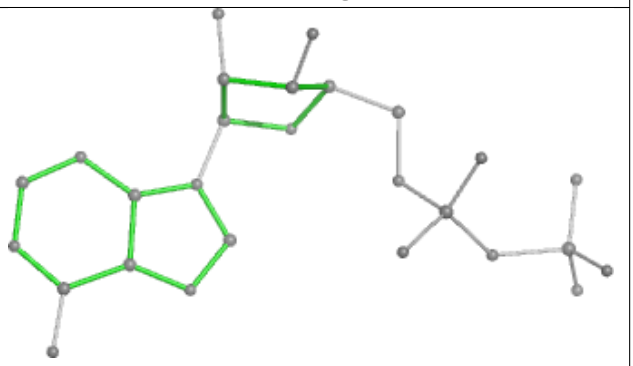
Bond lengths



Bond angles

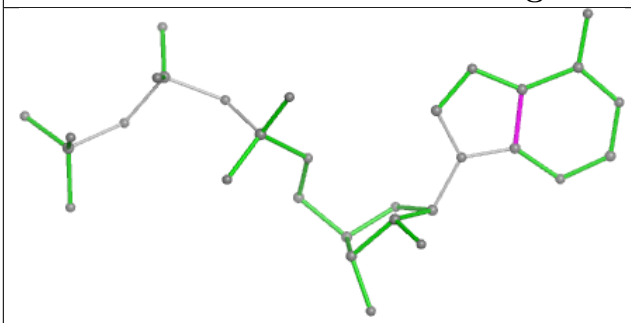


Torsions

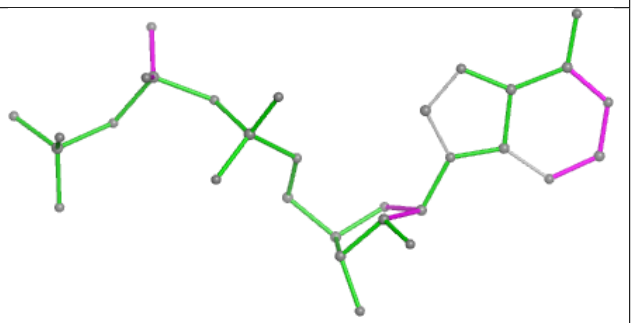


Rings

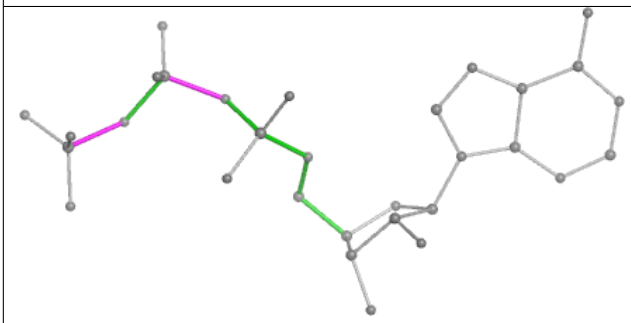
Ligand ATP E 600



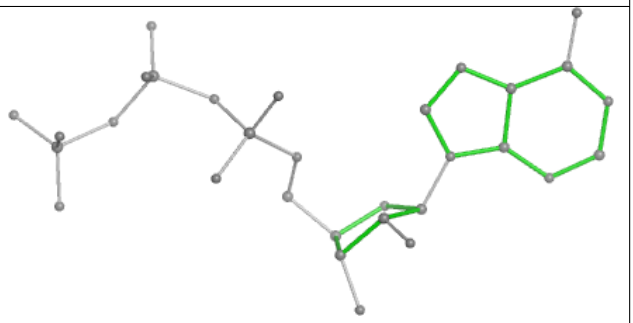
Bond lengths



Bond angles

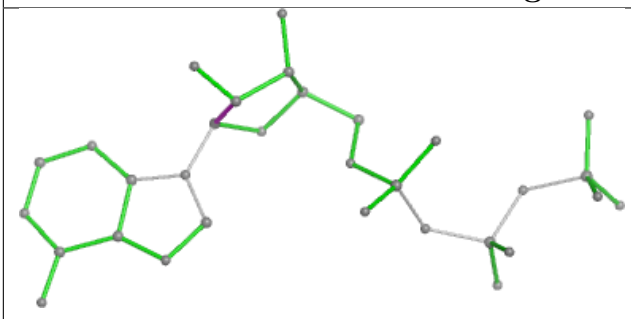


Torsions

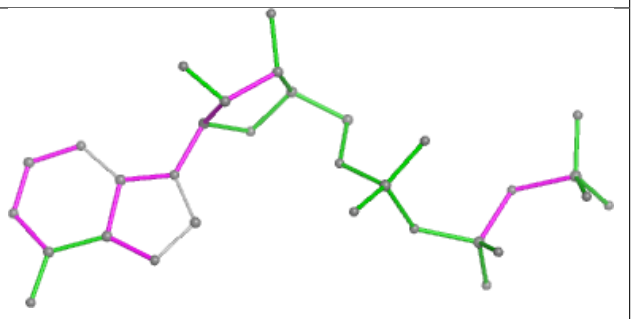


Rings

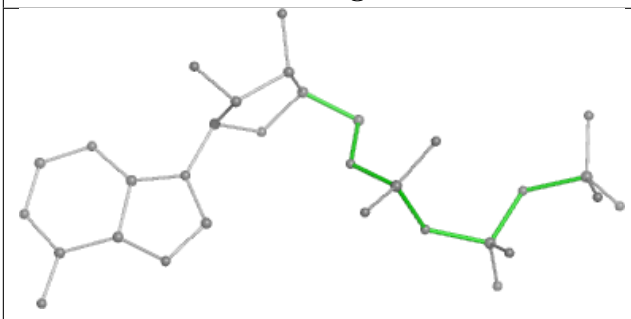
Ligand ATP A 600



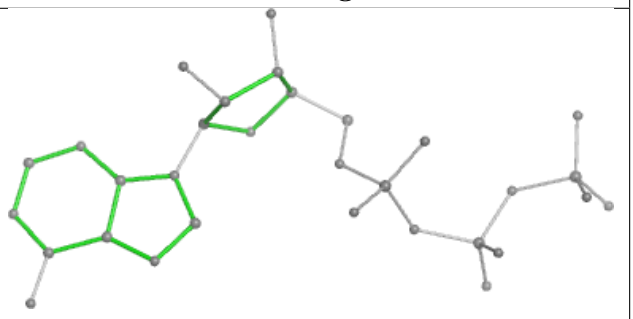
Bond lengths



Bond angles

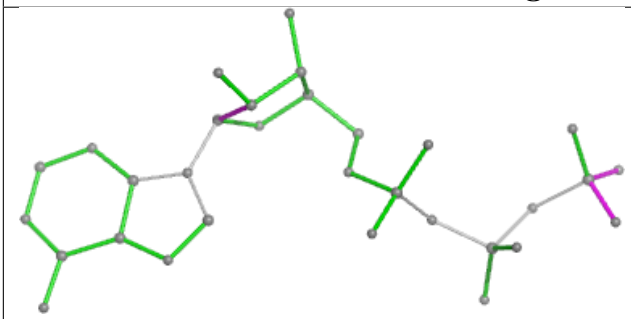


Torsions

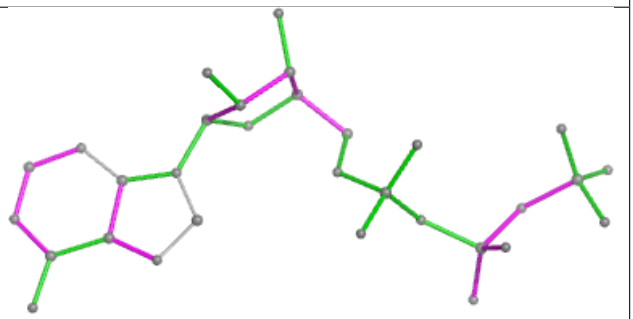


Rings

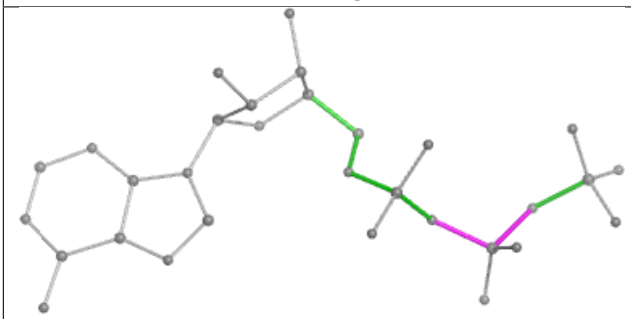
Ligand ATP C 602



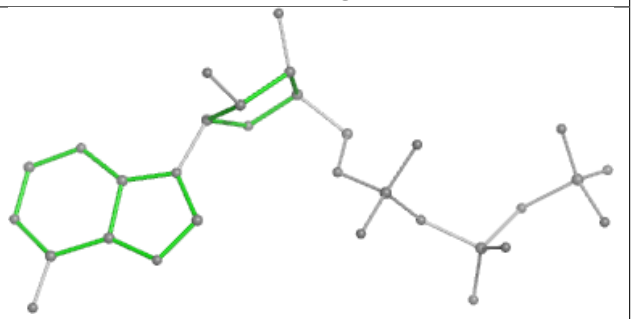
Bond lengths



Bond angles

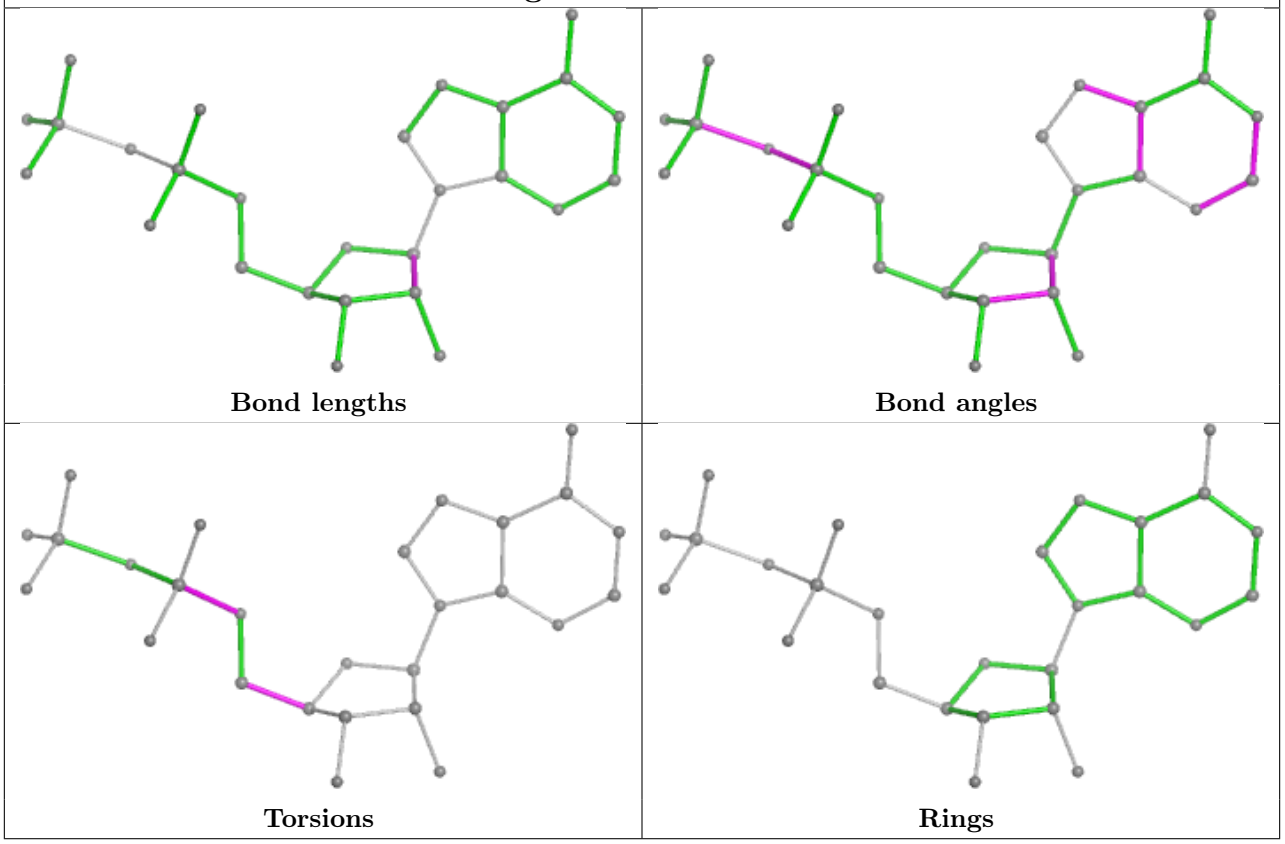


Torsions



Rings

Ligand ADP F 600



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
8	b	1
2	C	1
2	E	1
7	p	1
3	D	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	b	77:GLN	C	78:LEU	N	2.25
1	C	30:GLY	C	31:THR	N	1.73

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	E	30:GLY	C	31:THR	N	1.64
1	p	105:ASP	C	106:LYS	N	1.17
1	D	276:PHE	C	277:ARG	N	0.97

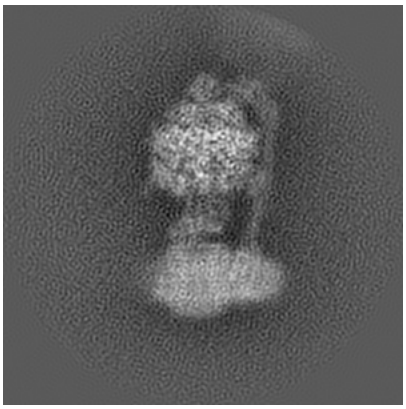
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-4271. These allow visual inspection of the internal detail of the map and identification of artifacts.

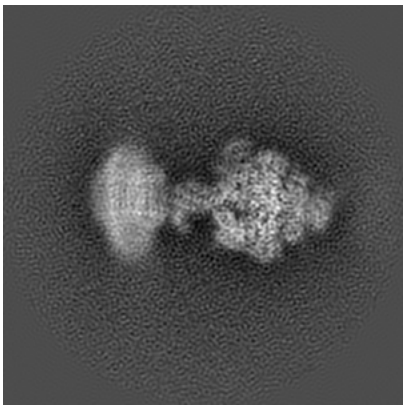
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

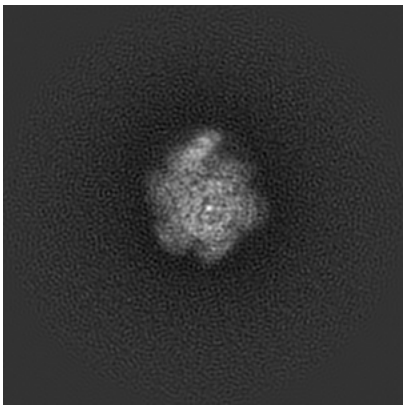
6.1.1 Primary map



X

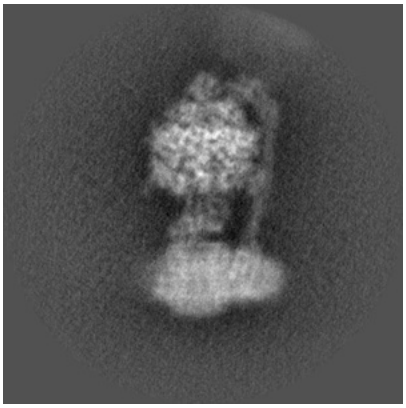


Y

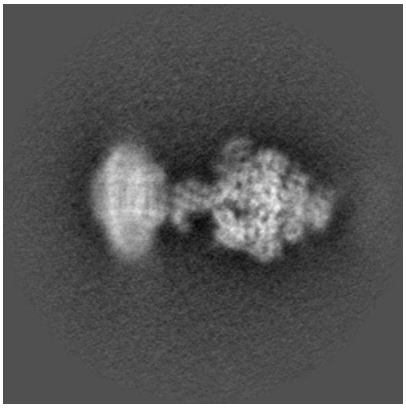


Z

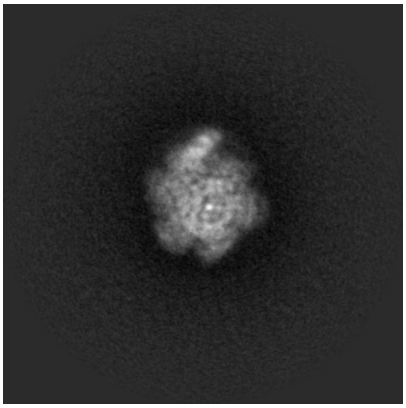
6.1.2 Raw map



X



Y

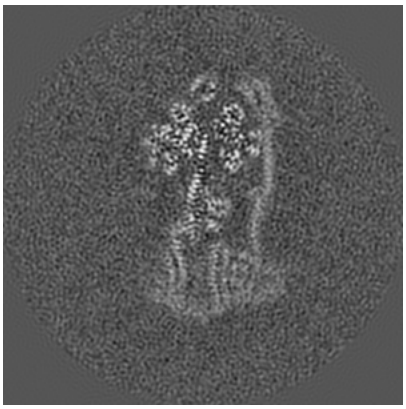


Z

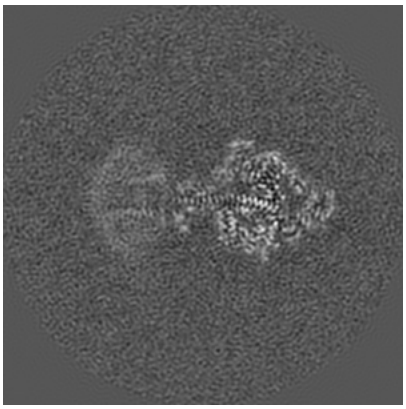
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

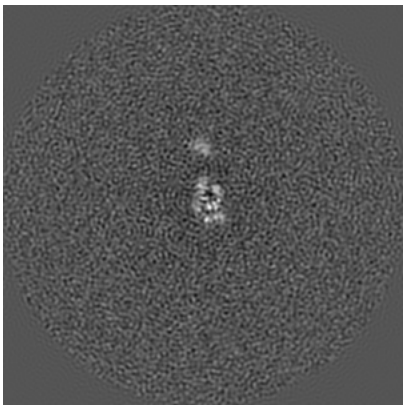
6.2.1 Primary map



X Index: 175

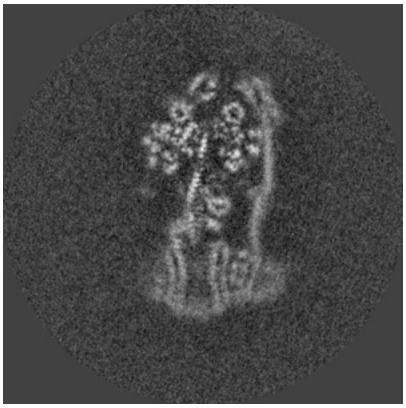


Y Index: 175

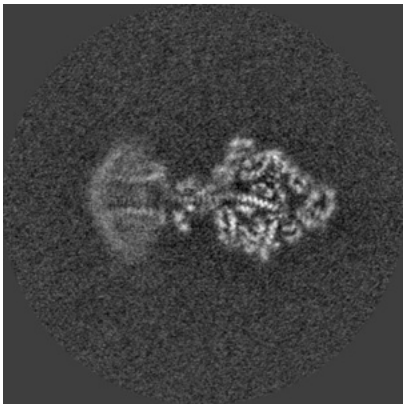


Z Index: 175

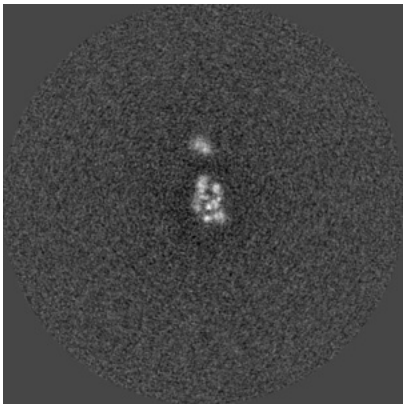
6.2.2 Raw map



X Index: 175



Y Index: 175

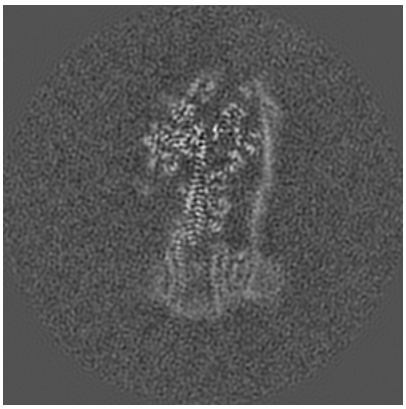


Z Index: 175

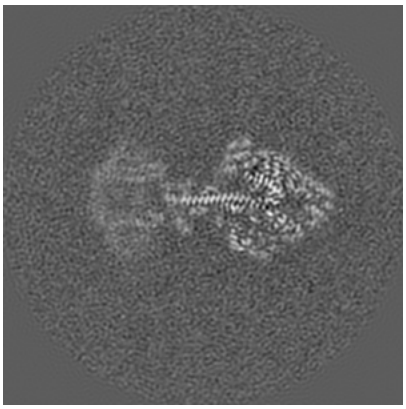
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

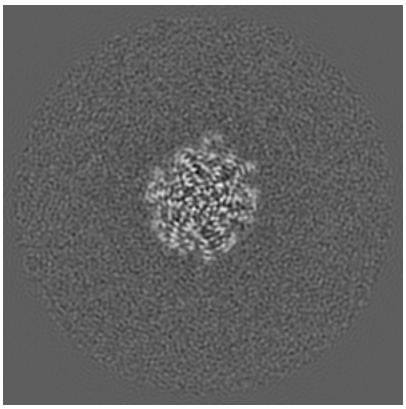
6.3.1 Primary map



X Index: 177

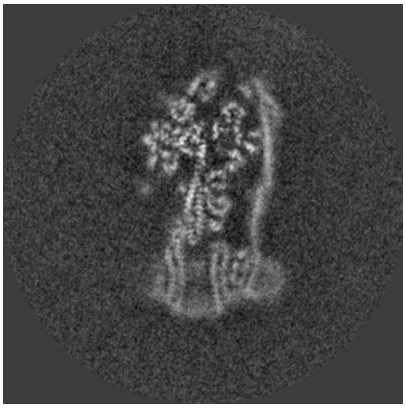


Y Index: 171

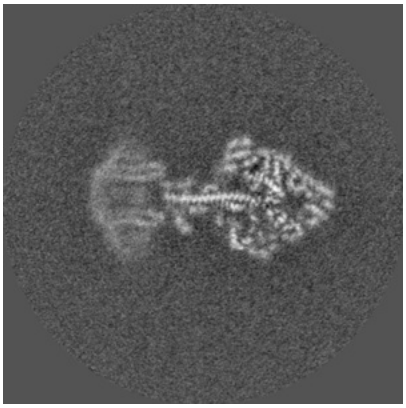


Z Index: 234

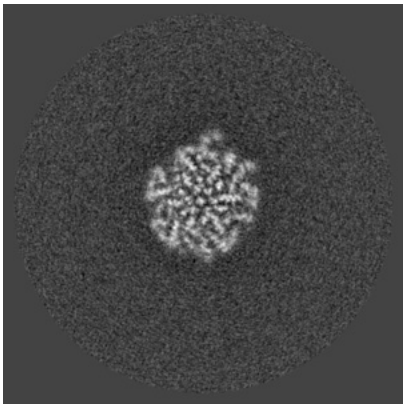
6.3.2 Raw map



X Index: 177



Y Index: 171

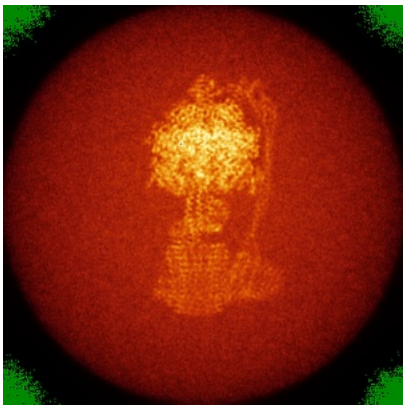


Z Index: 235

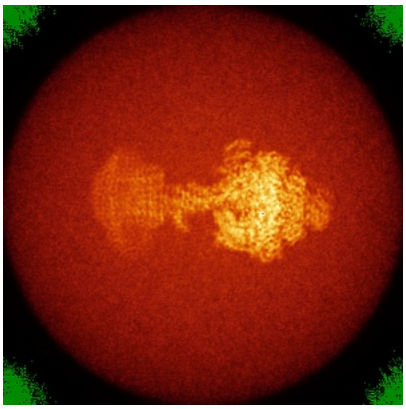
The images above show the largest variance slices of the map in three orthogonal directions.

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

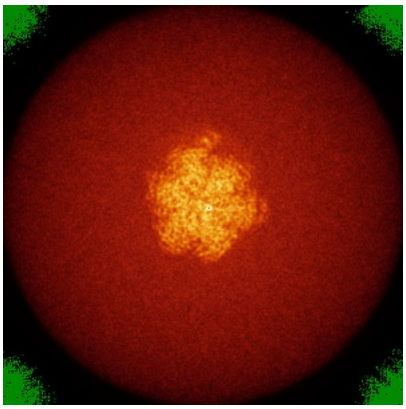
6.4.1 Primary map



X

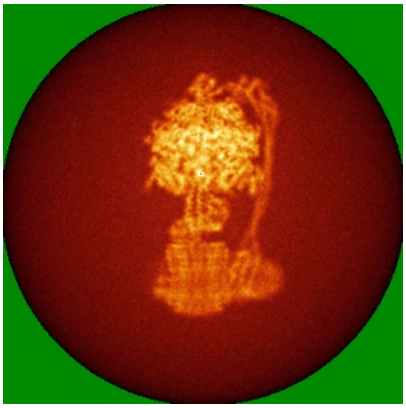


Y

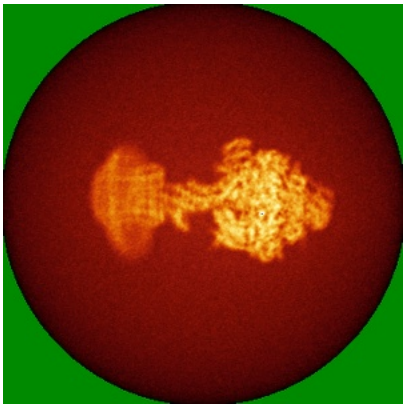


Z

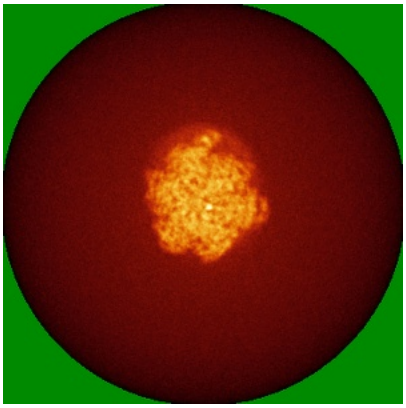
6.4.2 Raw map



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.

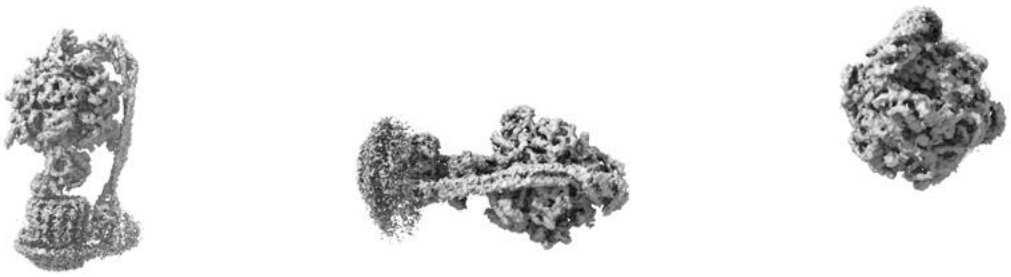
6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.05. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



X Y Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

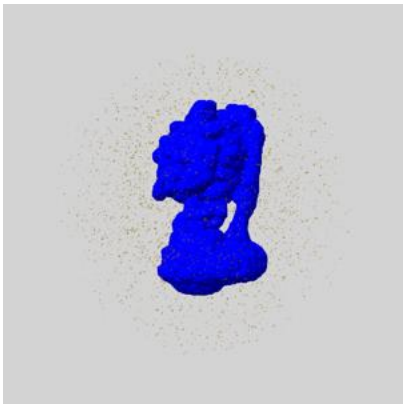
6.6 Mask visualisation

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

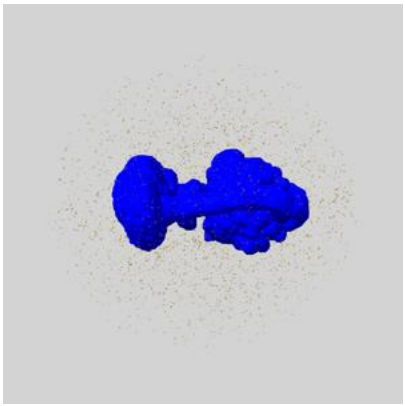
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

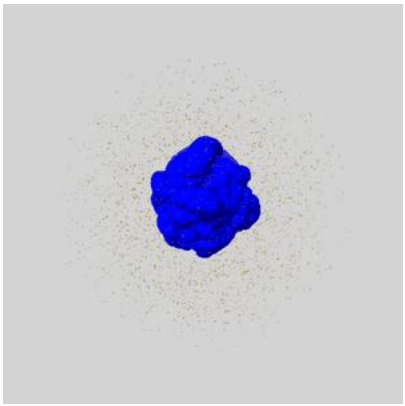
6.6.1 emd_4271_msk_1.map



X



Y

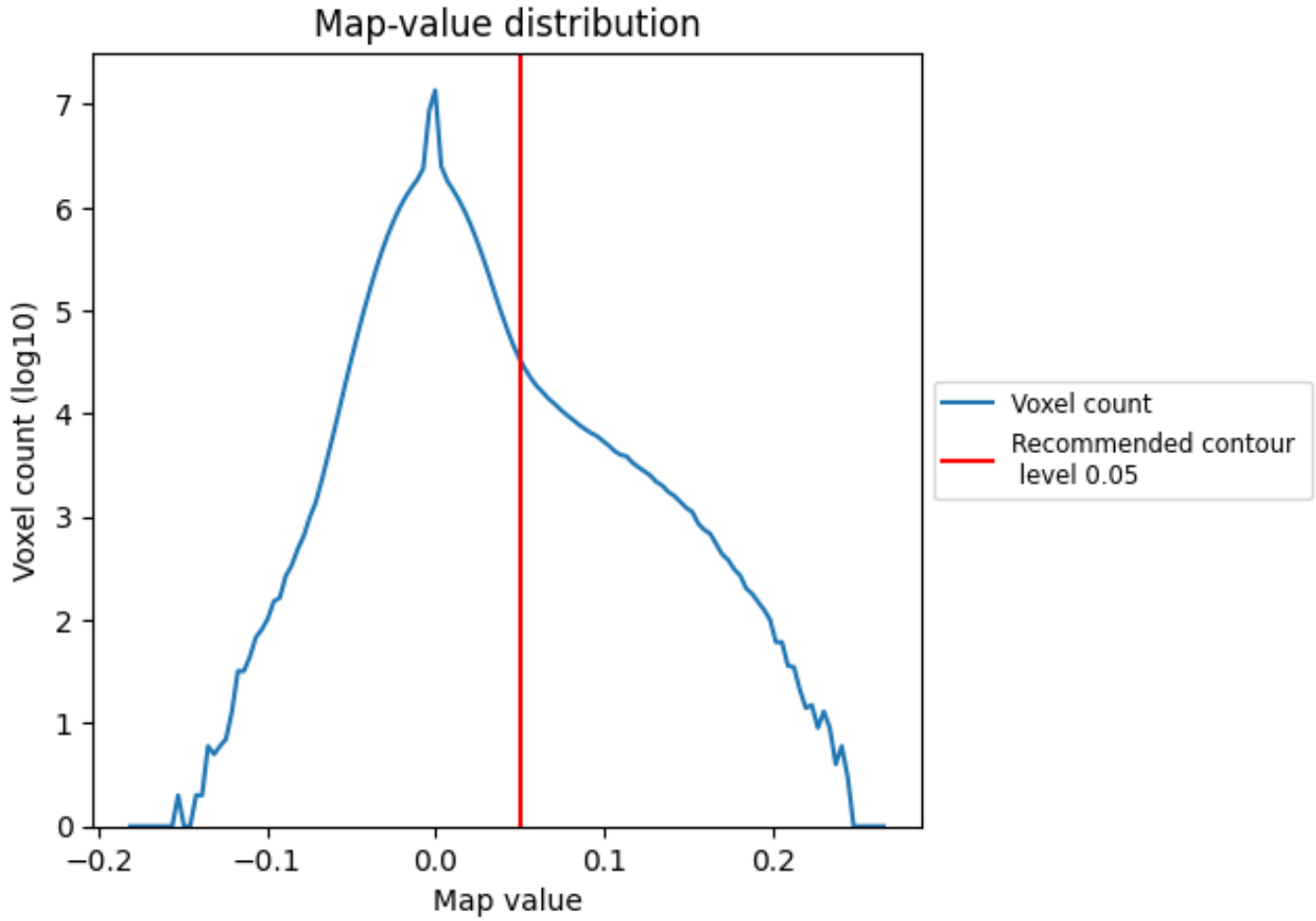


Z

7 Map analysis

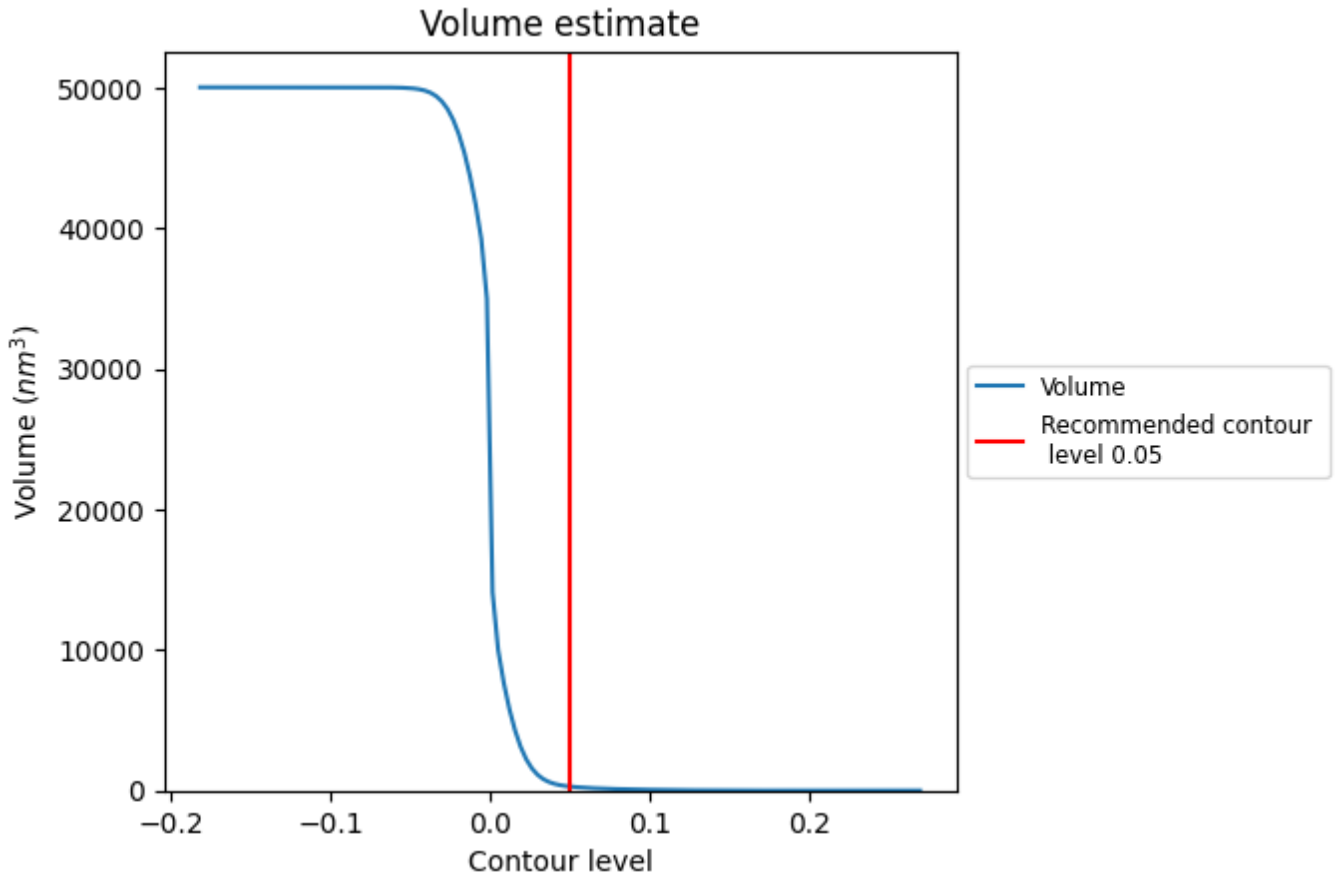
This section contains the results of statistical analysis of the map.

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.

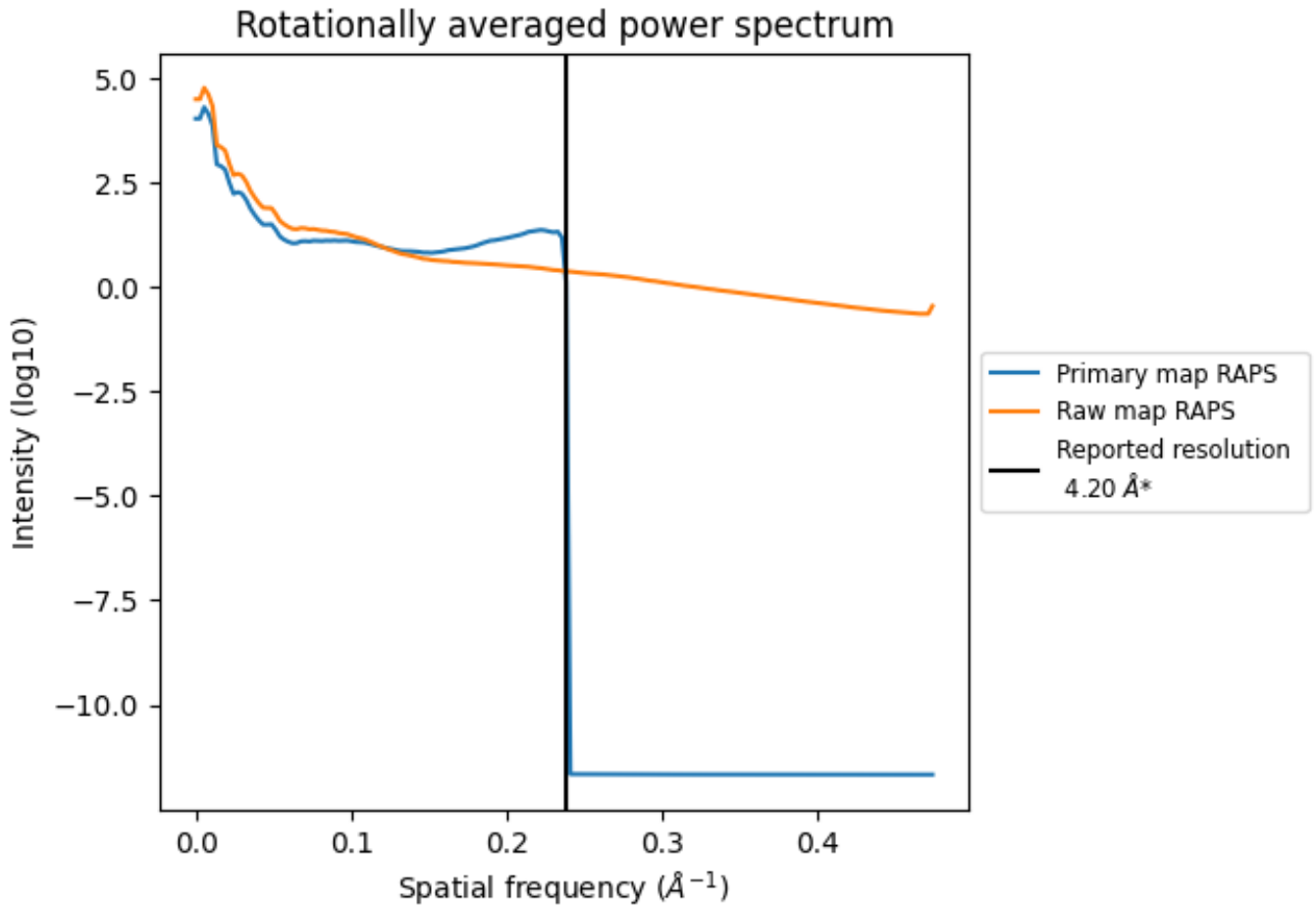
7.2 Volume estimate



The volume at the recommended contour level is 291 nm^3; this corresponds to an approximate mass of 263 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 (i)

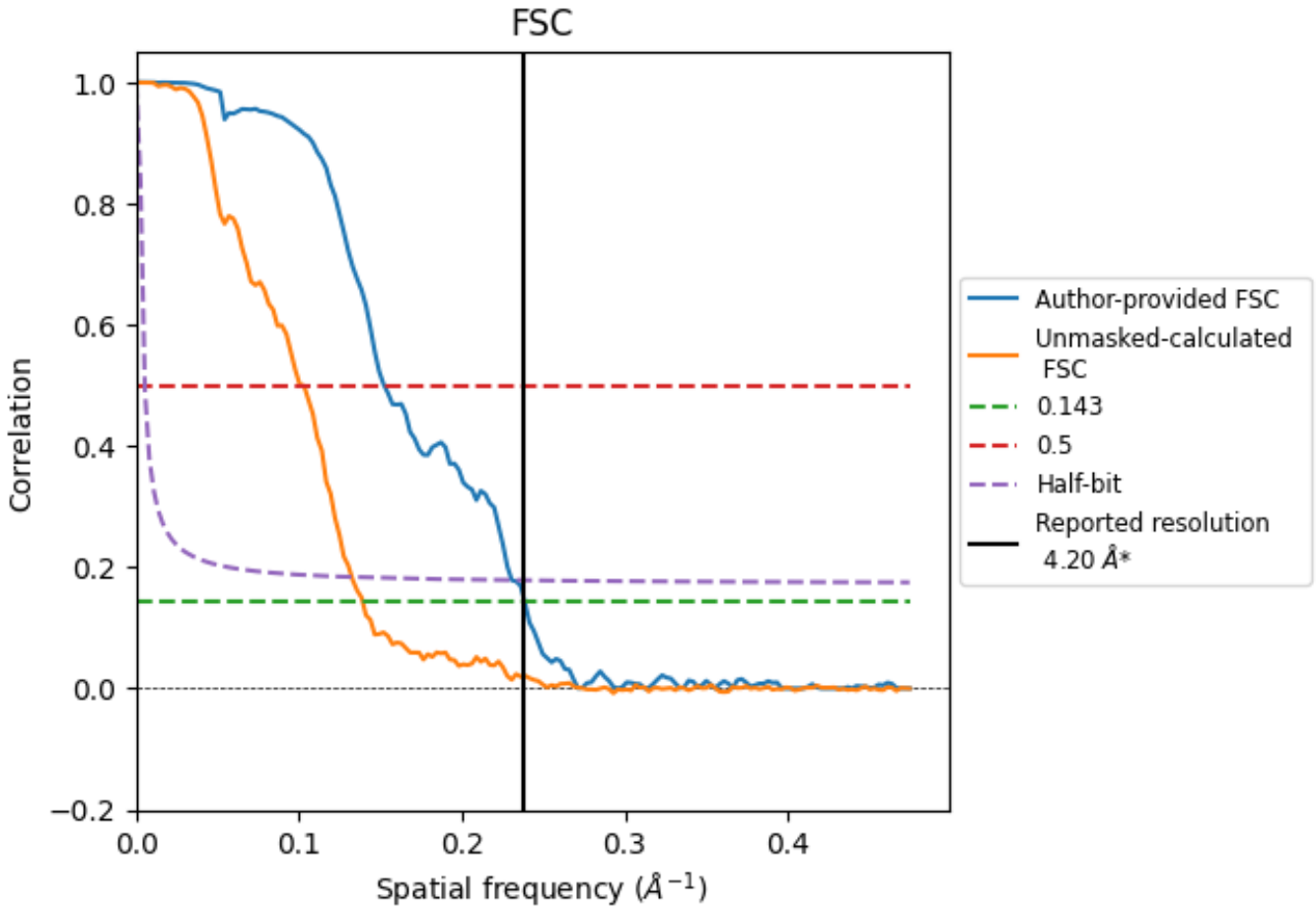


*Reported resolution corresponds to spatial frequency of 0.238 Å^{-1}

8 Fourier-Shell correlation

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.238 Å^{-1}

8.2 Resolution estimates (i)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.20	-	-
Author-provided FSC curve	4.19	6.57	4.33
Unmasked-calculated*	7.19	9.79	7.55

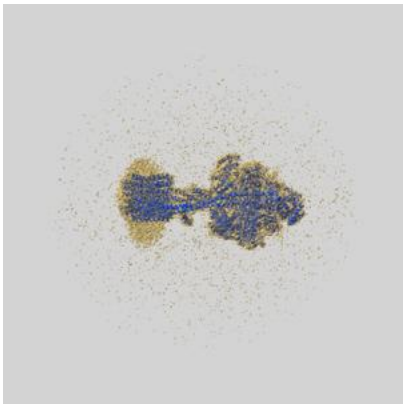
*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 7.19 differs from the reported value 4.2 by more than 10 %

9 Map-model fit

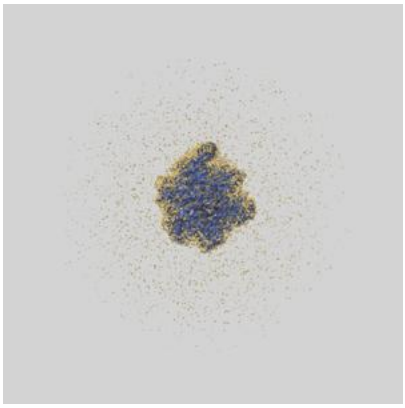
This section contains information regarding the fit between EMDB map EMD-4271 and PDB model 6FKH. Per-residue inclusion information can be found in section 3 on page 8.

9.1 Map-model overlay

X



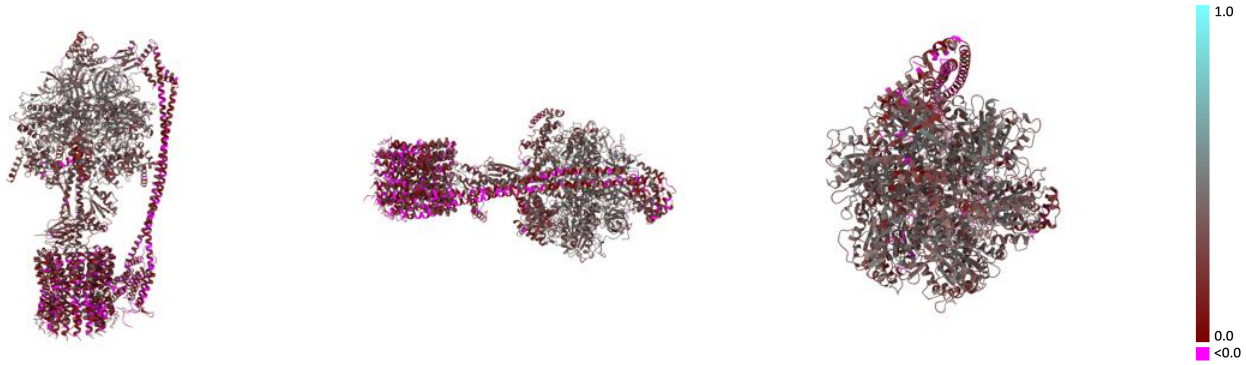
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.05 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.

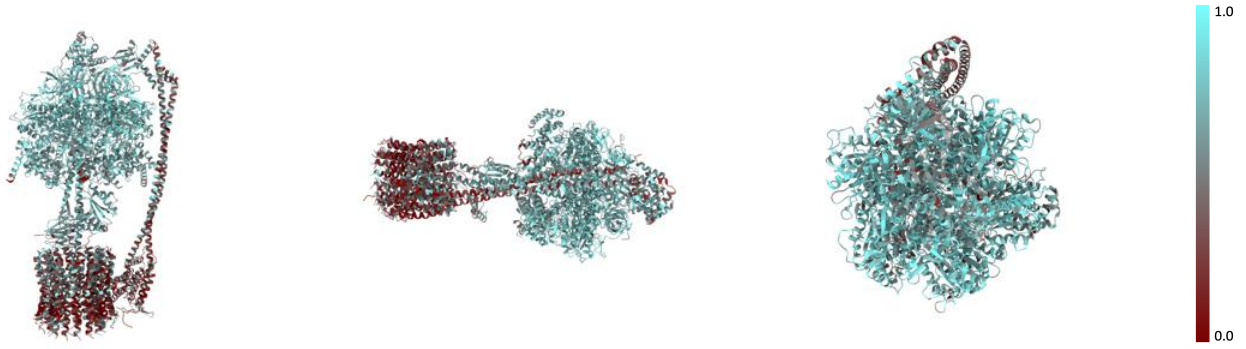
9.2 Q-score mapped to coordinate model



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.

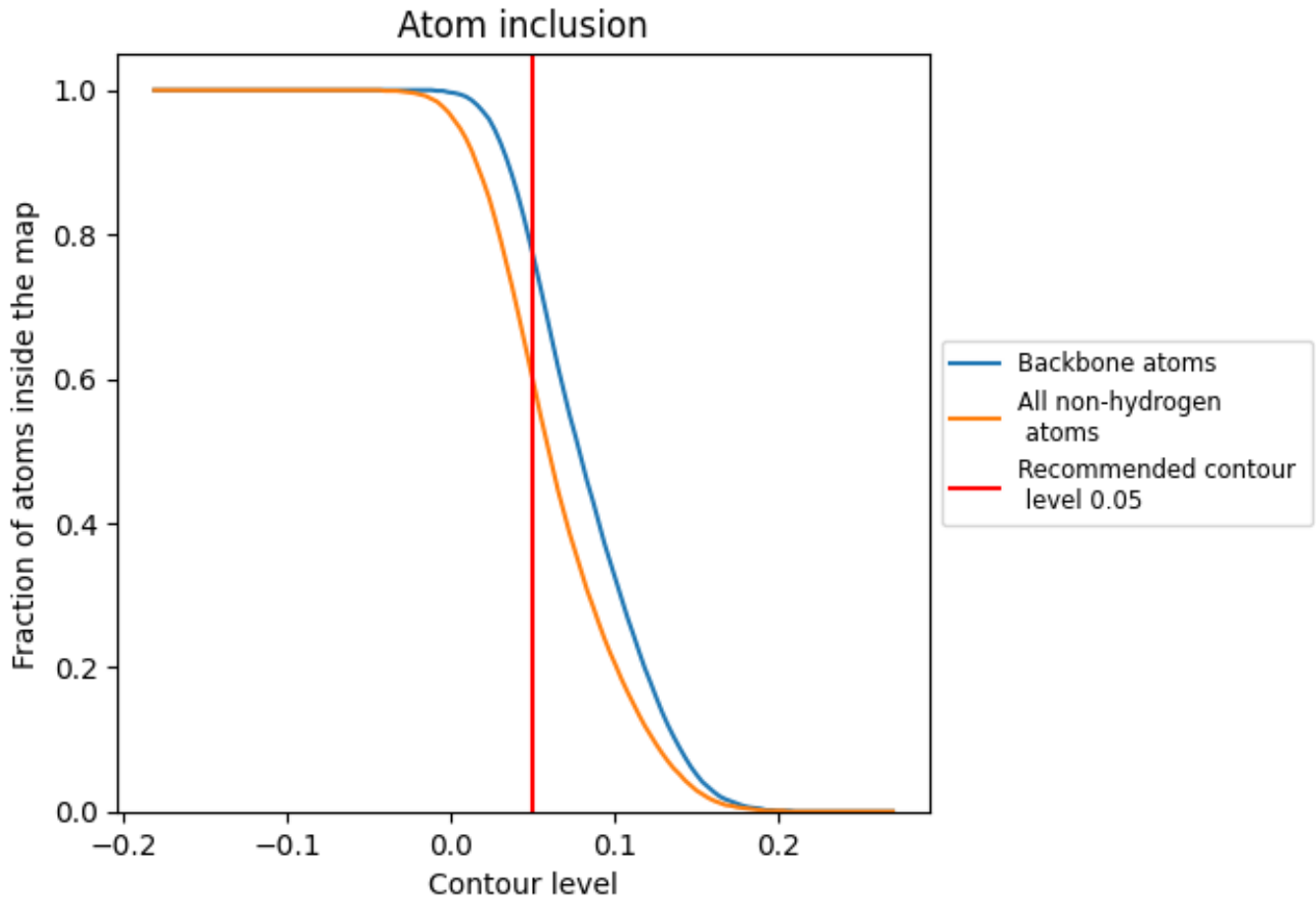
9.3 Atom inclusion mapped to coordinate model



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 (0.05).

9.4 Atom inclusion (i)



At the recommended contour level, 77% of all backbone atoms, 60% 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 (0.05) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5960	0.2790
A	0.6980	0.3490
B	0.7370	0.3700
C	0.7140	0.3530
D	0.7350	0.3630
E	0.6900	0.3270
F	0.7270	0.3760
G	0.4190	0.2070
H	0.3620	0.1460
I	0.3620	0.1840
J	0.3230	0.1620
K	0.3880	0.1670
L	0.4380	0.1970
M	0.4290	0.1620
N	0.4060	0.1570
O	0.3750	0.1420
P	0.3690	0.1520
Q	0.3190	0.1260
R	0.2710	0.0930
S	0.2890	0.1190
T	0.3650	0.1760
a	0.3150	0.1120
b	0.3940	0.0880
d	0.6170	0.2870
e	0.5730	0.2070
g	0.6380	0.2910
p	0.3170	0.0760