



Full wwPDB X-ray Structure Validation Report ⓘ

Oct 26, 2023 – 06:28 PM EDT

PDB ID : 3L4G
Title : Crystal structure of Homo Sapiens cytoplasmic Phenylalanyl-tRNA synthetase
Authors : Finarov, I.; Moor, N.; Kessler, N.; Klipcan, L.; Safro, M.G.
Deposited on : 2009-12-20
Resolution : 3.30 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtrriage (Phenix) : 1.13
EDS : 2.36
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

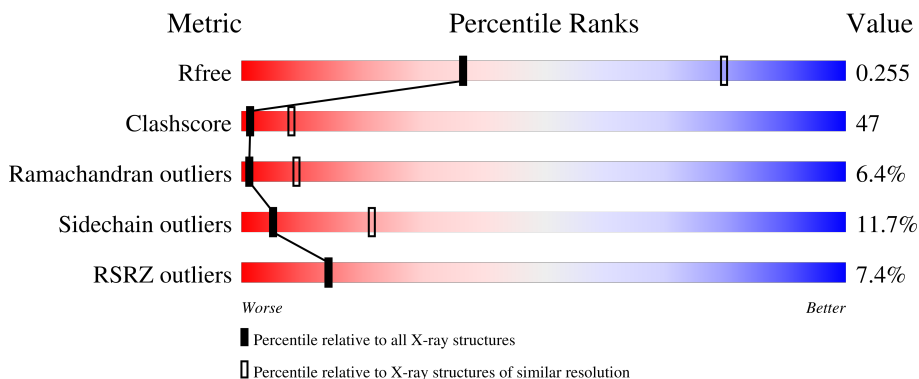
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 Å.

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



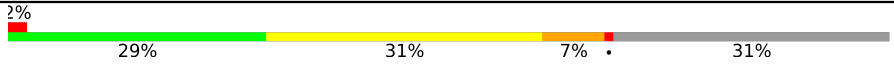


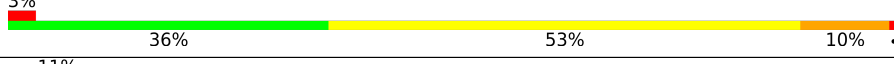
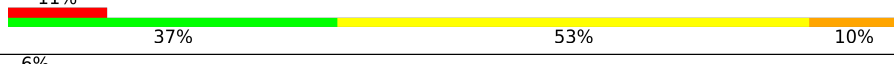
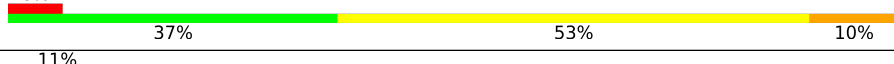
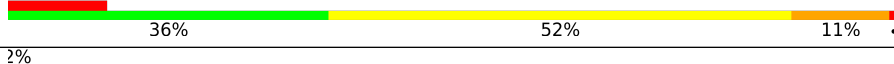
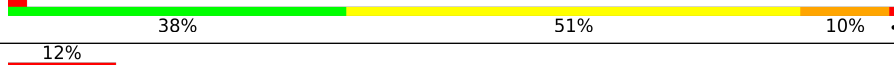
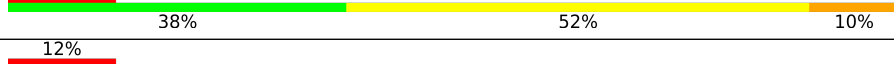
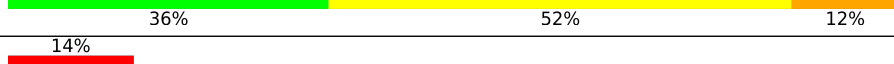
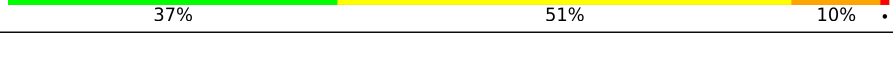
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1149 (3.34-3.26)
Clashscore	141614	1205 (3.34-3.26)
Ramachandran outliers	138981	1183 (3.34-3.26)
Sidechain outliers	138945	1182 (3.34-3.26)
RSRZ outliers	127900	1115 (3.34-3.26)

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

Mol	Chain	Length	Quality of chain
1	A	508	
1	C	508	
1	E	508	
1	G	508	
1	I	508	

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Mol	Chain	Length	Quality of chain
1	K	508	
1	M	508	
1	O	508	
2	B	589	
2	D	589	
2	F	589	
2	H	589	
2	J	589	
2	L	589	
2	N	589	
2	P	589	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	PHE	A	509	-	-	X	-
3	PHE	K	509	-	-	X	-

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 59395 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Phenylalanyl-tRNA synthetase alpha chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	318	Total 2589	C 1661	N 453	O 464	S 11	0	0	0
1	C	508	Total 4058	C 2571	N 724	O 747	S 16	0	0	0
1	E	309	Total 2517	C 1618	N 439	O 449	S 11	0	0	0
1	G	309	Total 2521	C 1620	N 440	O 450	S 11	0	0	0
1	I	313	Total 2551	C 1639	N 445	O 456	S 11	0	0	0
1	K	349	Total 2746	C 1755	N 482	O 498	S 11	0	0	0
1	M	321	Total 2582	C 1652	N 456	O 463	S 11	0	0	0
1	O	309	Total 2527	C 1623	N 443	O 450	S 11	0	0	0

- Molecule 2 is a protein called Phenylalanyl-tRNA synthetase beta chain.

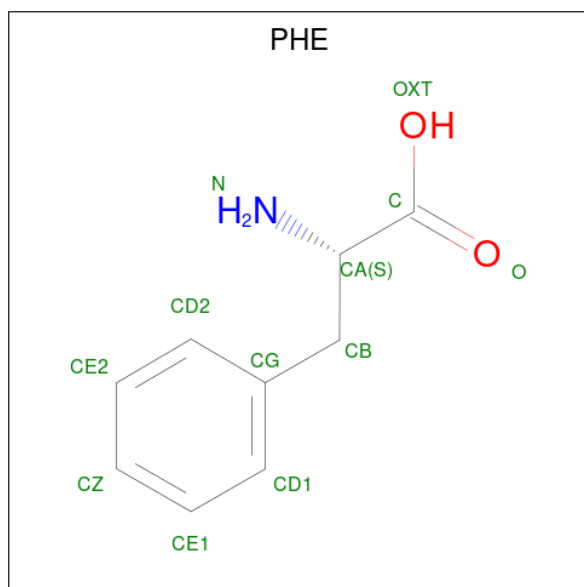
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	589	Total 4651	C 2981	N 781	O 866	S 23	0	0	0
2	D	589	Total 4651	C 2981	N 781	O 866	S 23	0	0	0
2	F	589	Total 4651	C 2981	N 781	O 866	S 23	0	0	0
2	H	589	Total 4651	C 2981	N 781	O 866	S 23	0	0	0
2	J	589	Total 4651	C 2981	N 781	O 866	S 23	0	0	0
2	L	589	Total 4651	C 2981	N 781	O 866	S 23	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	N	589	Total	C	N	O	S	0	0	0
			4651	2981	781	866	23			
2	P	589	Total	C	N	O	S	0	0	0
			4651	2981	781	866	23			

- Molecule 3 is PHENYLALANINE (three-letter code: PHE) (formula: C₉H₁₁NO₂).

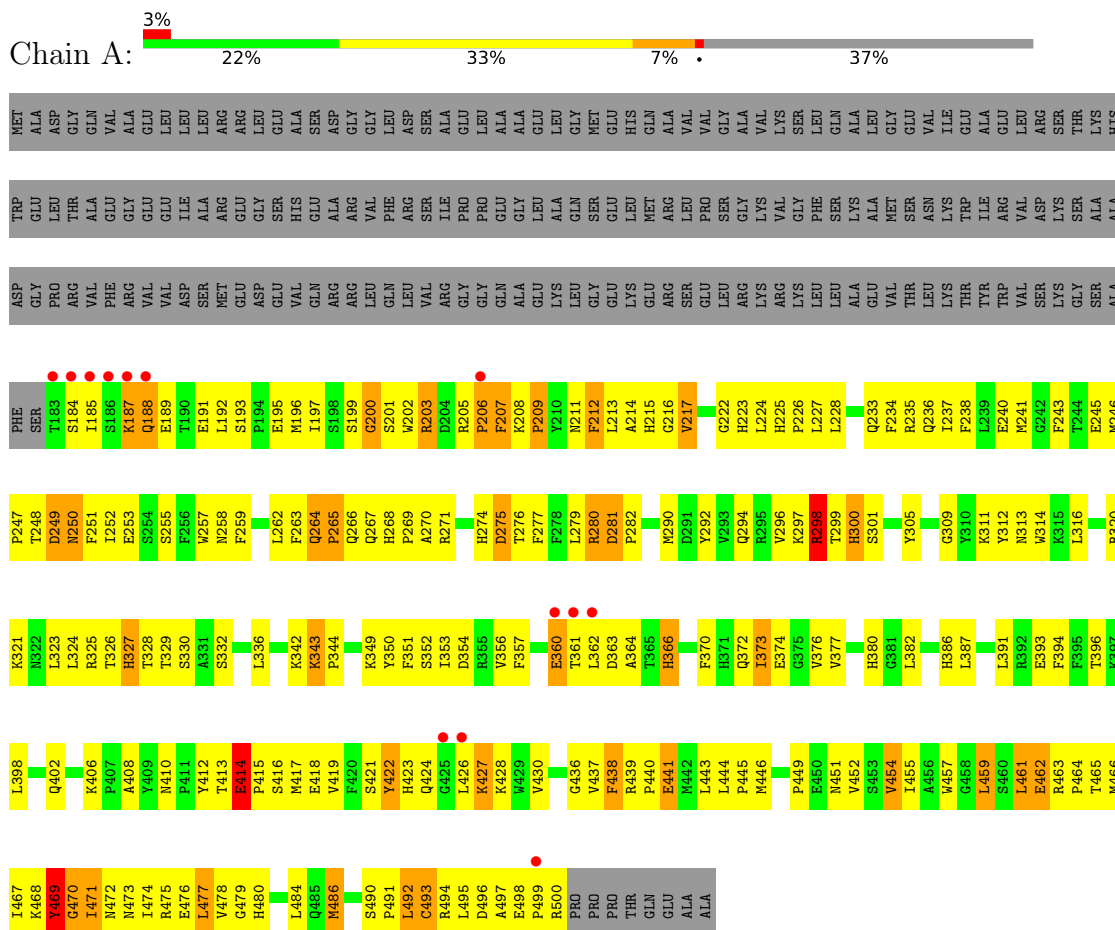


Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	A	1	Total	C	N	O	0	0
			12	9	1	2		
3	C	1	Total	C	N	O	0	0
			12	9	1	2		
3	E	1	Total	C	N	O	0	0
			12	9	1	2		
3	G	1	Total	C	N	O	0	0
			12	9	1	2		
3	I	1	Total	C	N	O	0	0
			12	9	1	2		
3	K	1	Total	C	N	O	0	0
			12	9	1	2		
3	M	1	Total	C	N	O	0	0
			12	9	1	2		
3	O	1	Total	C	N	O	0	0
			12	9	1	2		

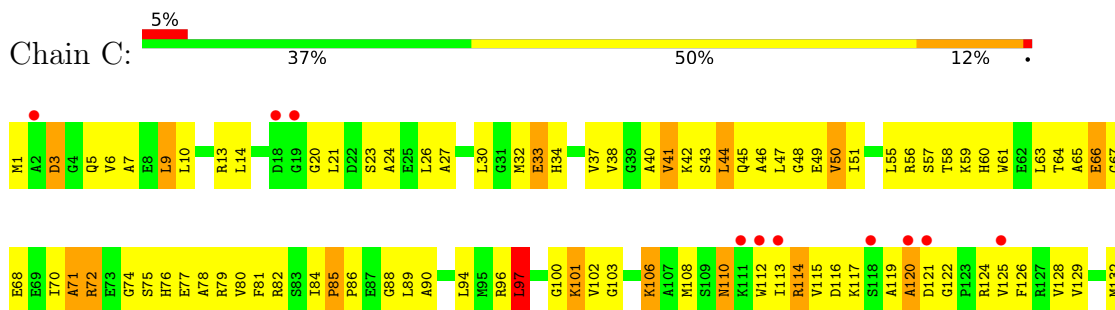
3 Residue-property plots

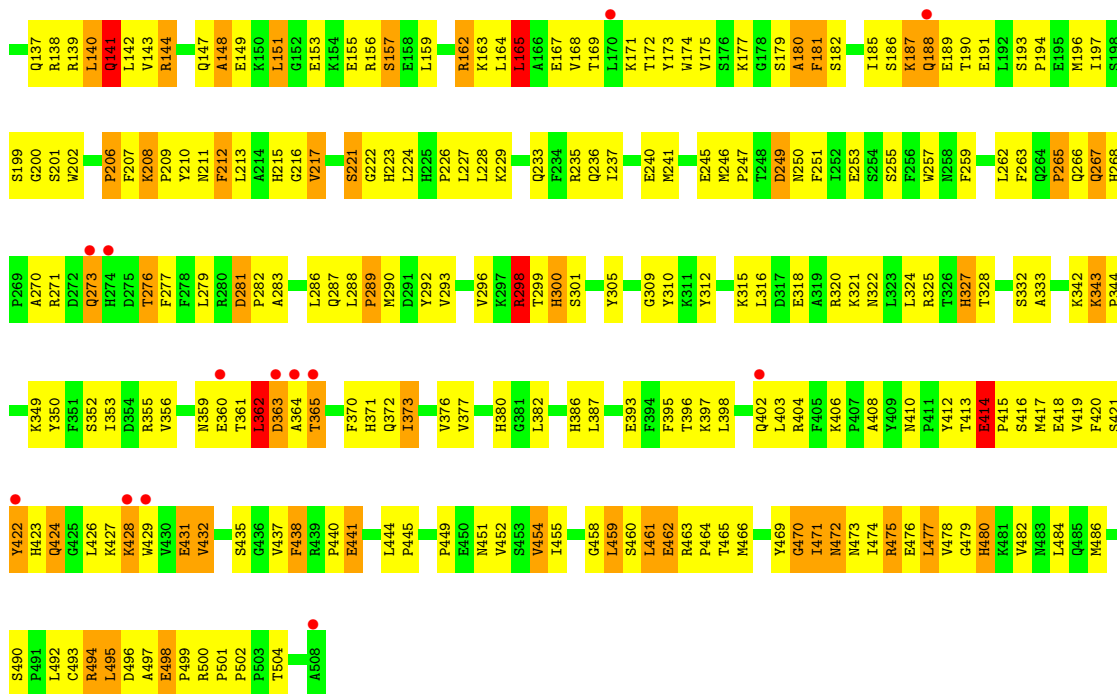
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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 dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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: Phenylalanyl-tRNA synthetase alpha chain

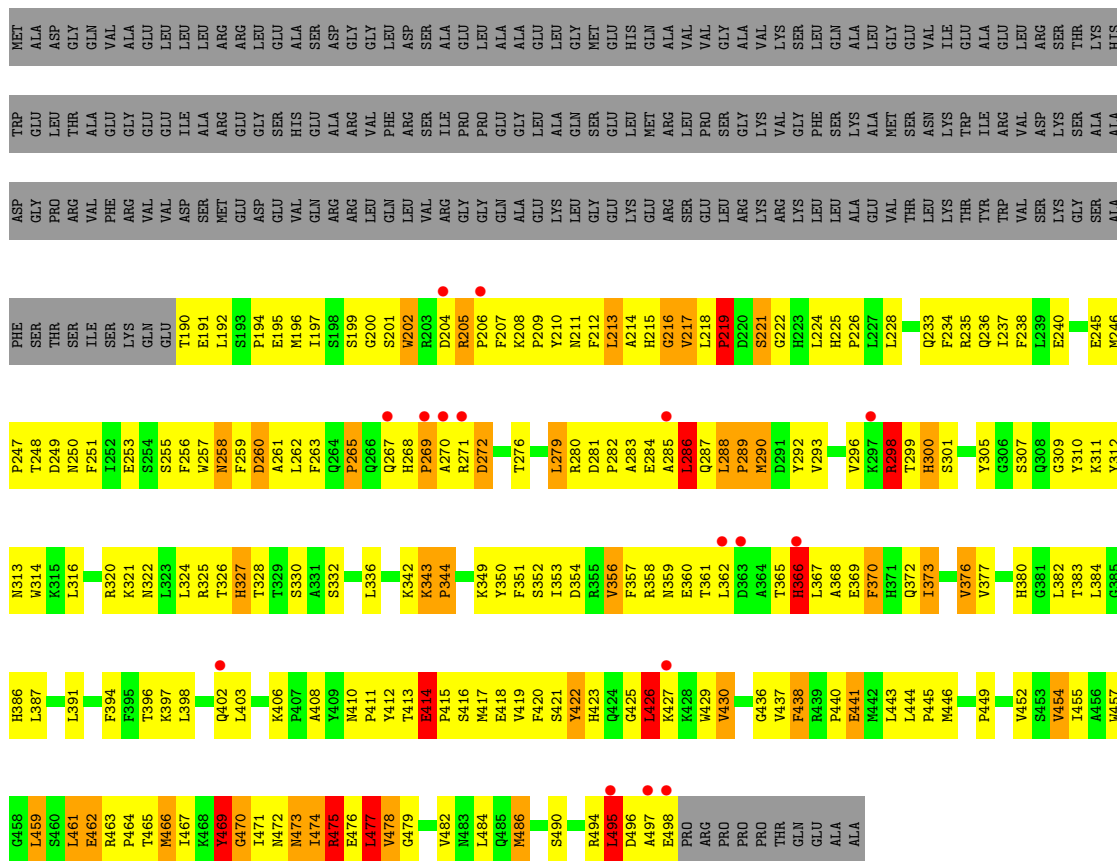


- Molecule 1: Phenylalanyl-tRNA synthetase alpha chain

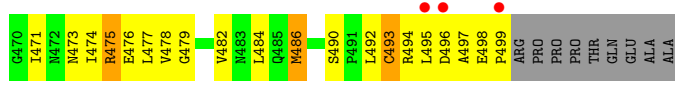
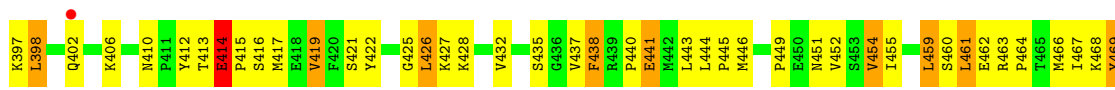




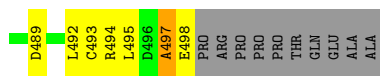
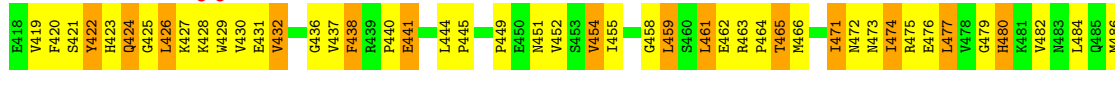
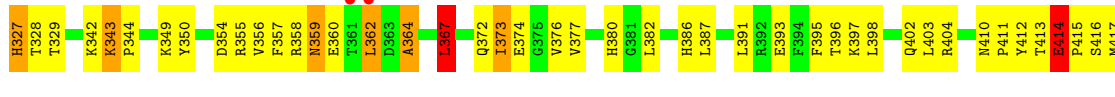
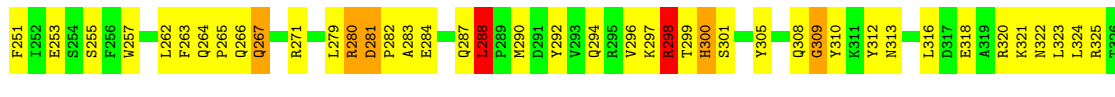
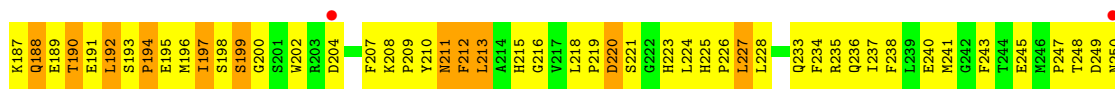
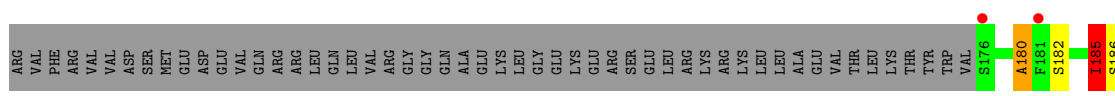
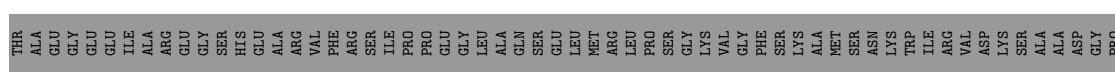
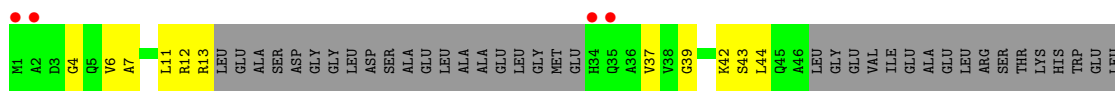
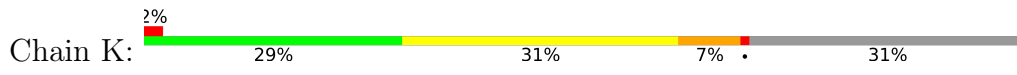
• Molecule 1: Phenylalanyl-tRNA synthetase alpha chain



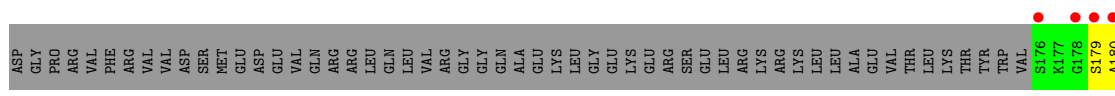
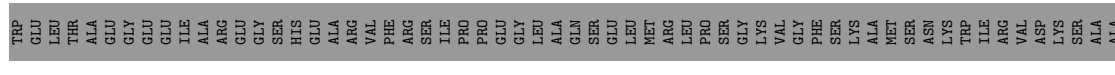
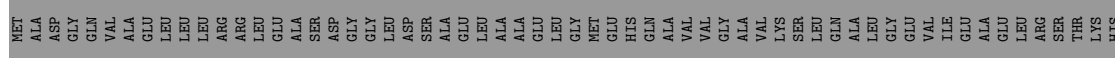
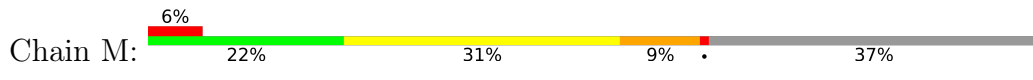
• Molecule 1: Phenylalanyl-tRNA synthetase alpha chain

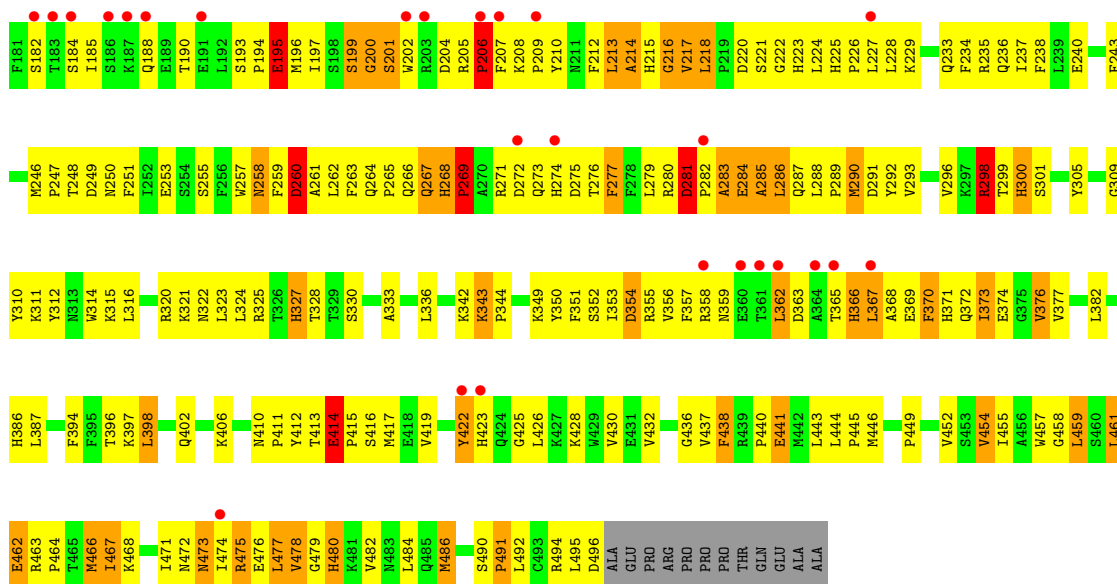


● Molecule 1: Phenylalanyl-tRNA synthetase alpha chain

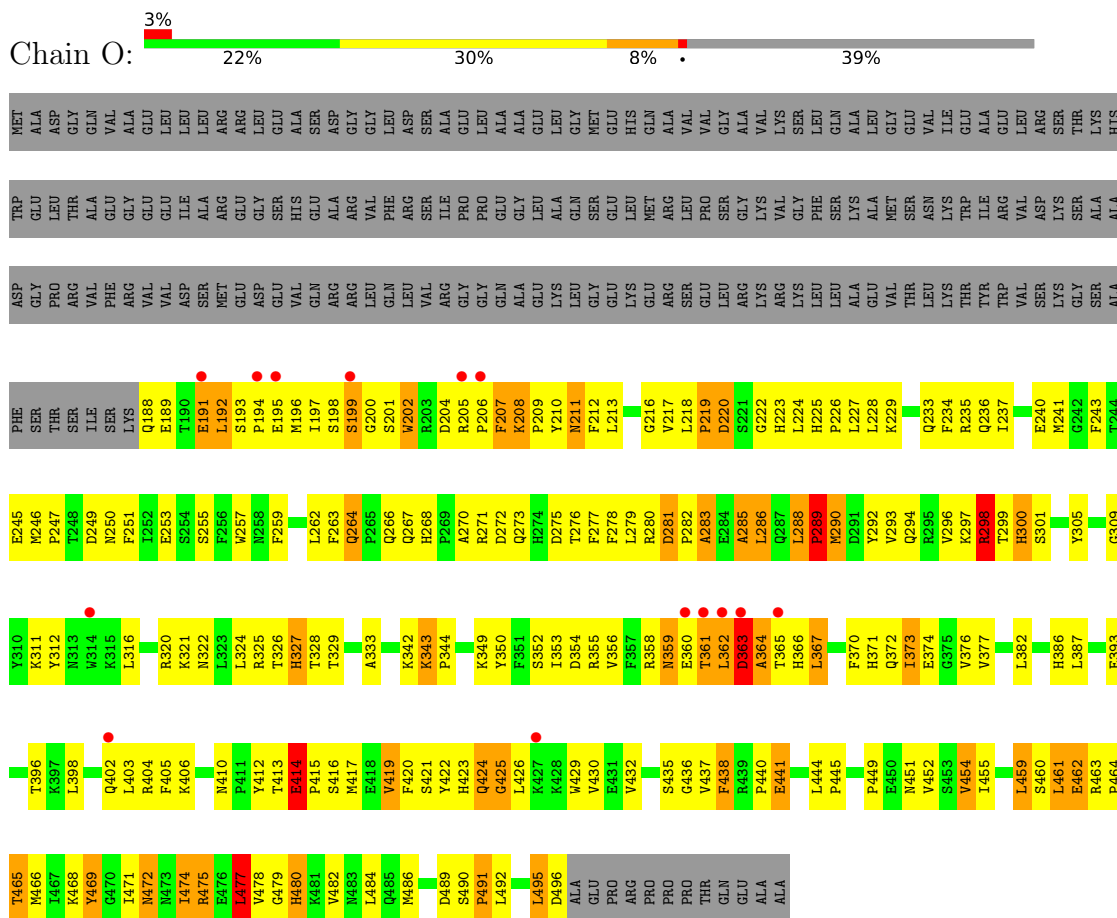


● Molecule 1: Phenylalanyl-tRNA synthetase alpha chain



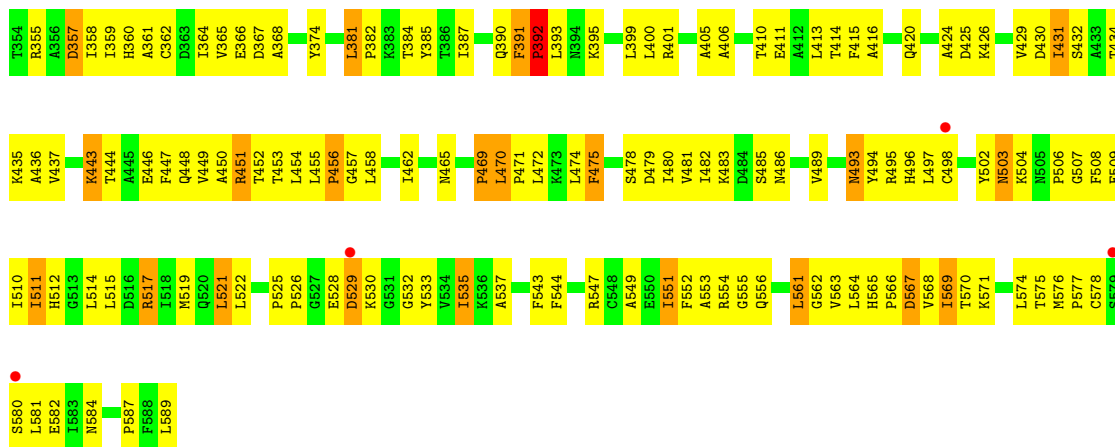


• Molecule 1: Phenylalanyl-tRNA synthetase alpha chain

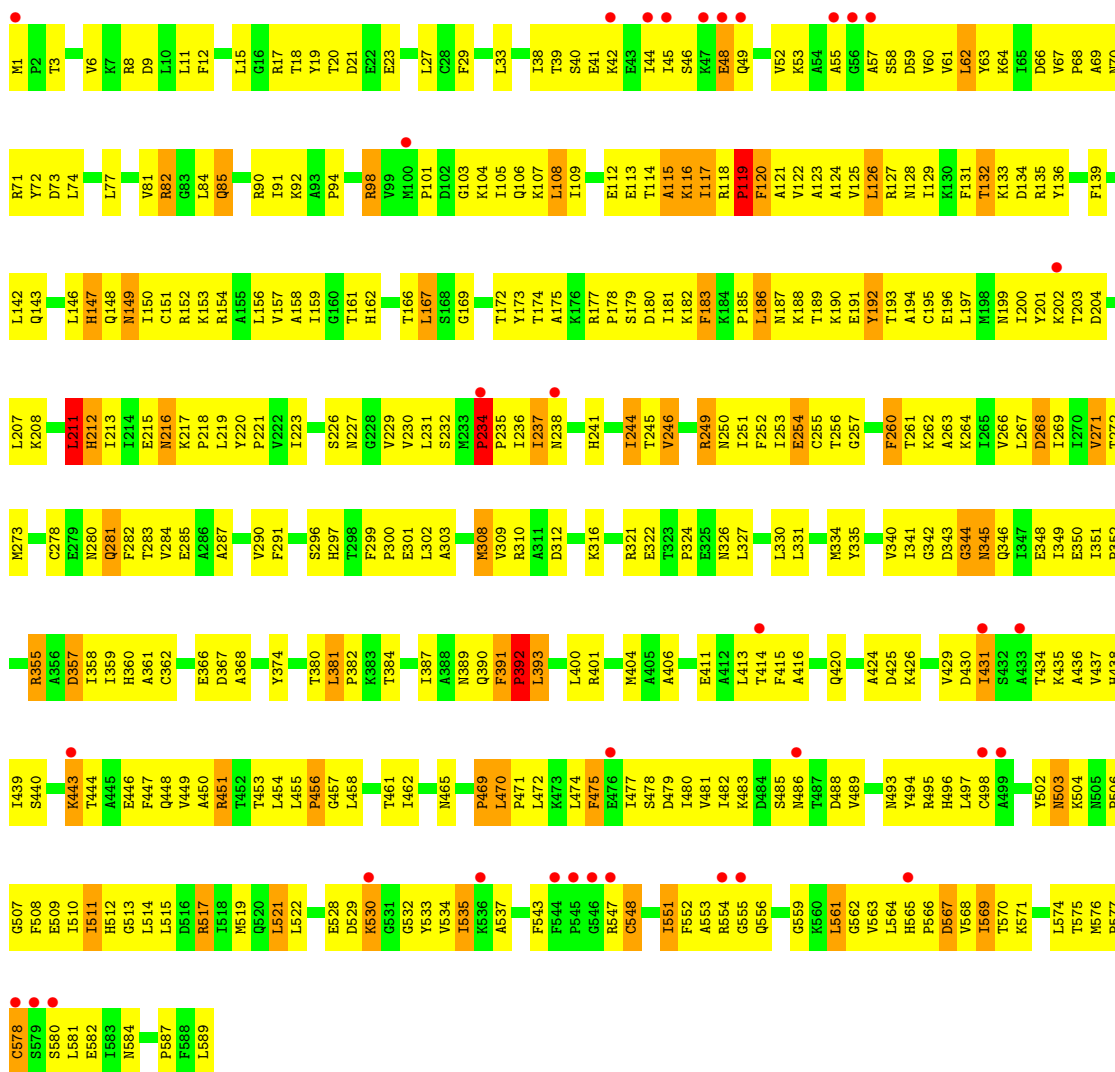


• Molecule 2: Phenylalanyl-tRNA synthetase beta chain

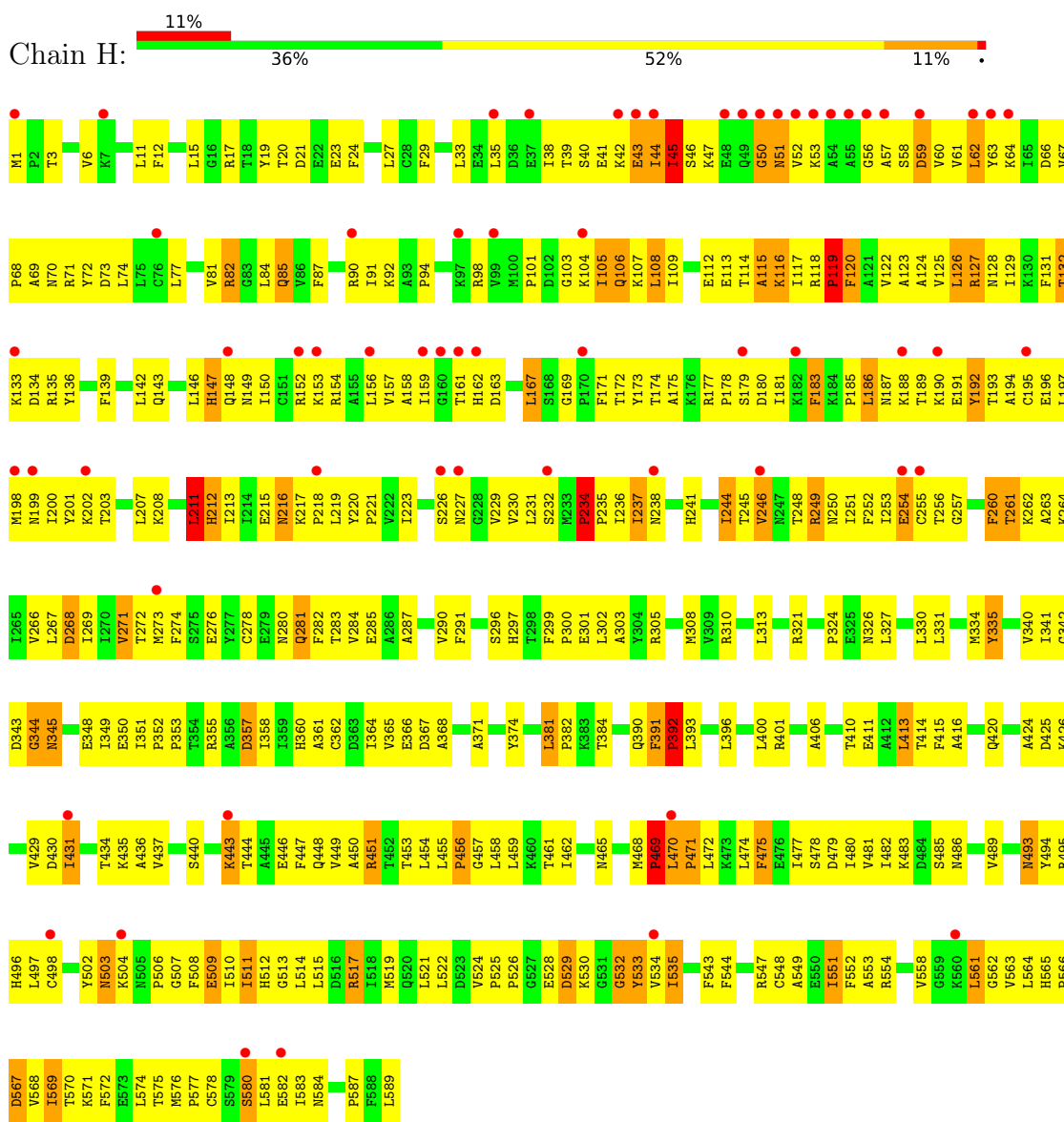




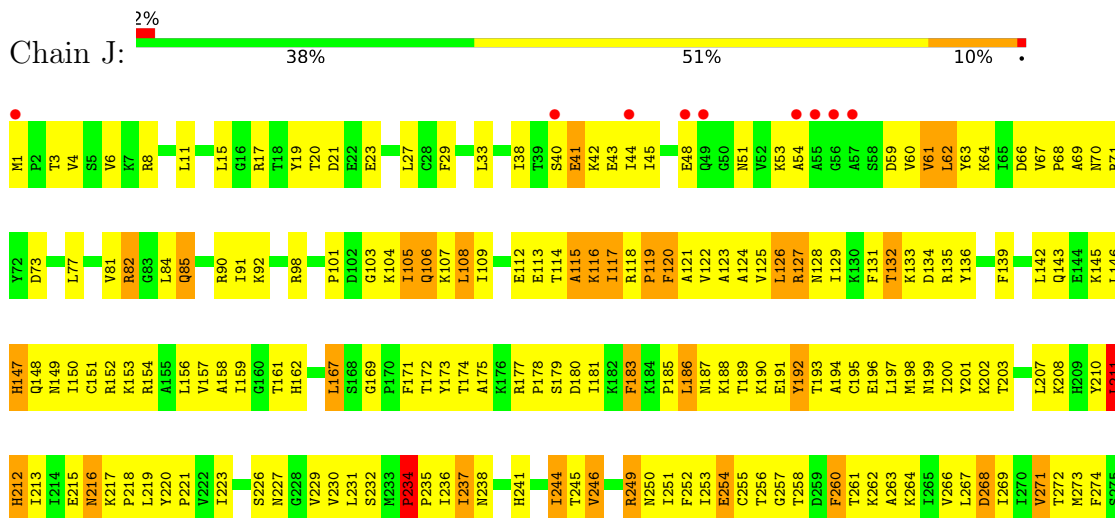
• Molecule 2: Phenylalanyl-tRNA synthetase beta chain

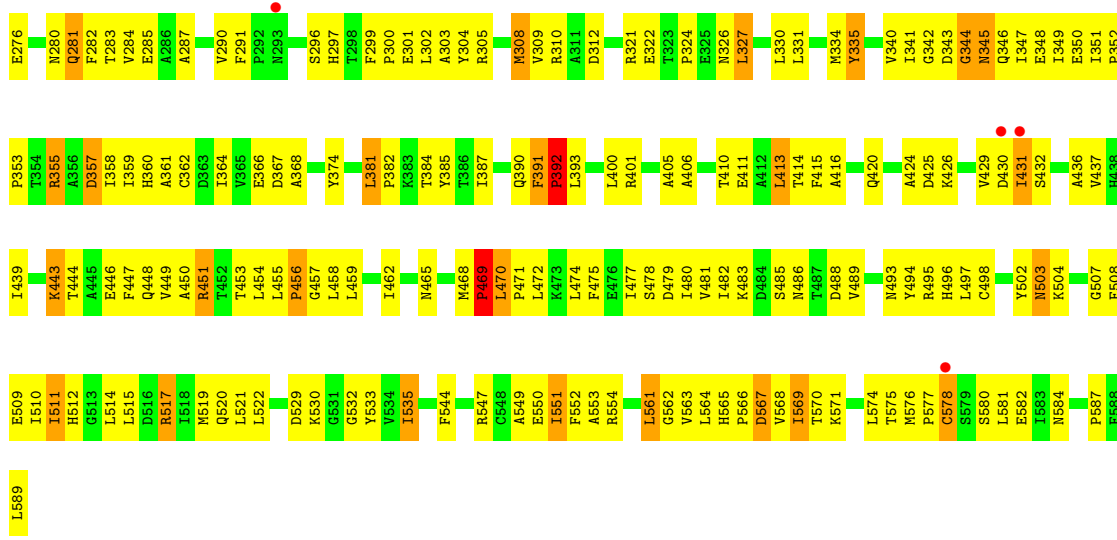


• Molecule 2: Phenylalanyl-tRNA synthetase beta chain

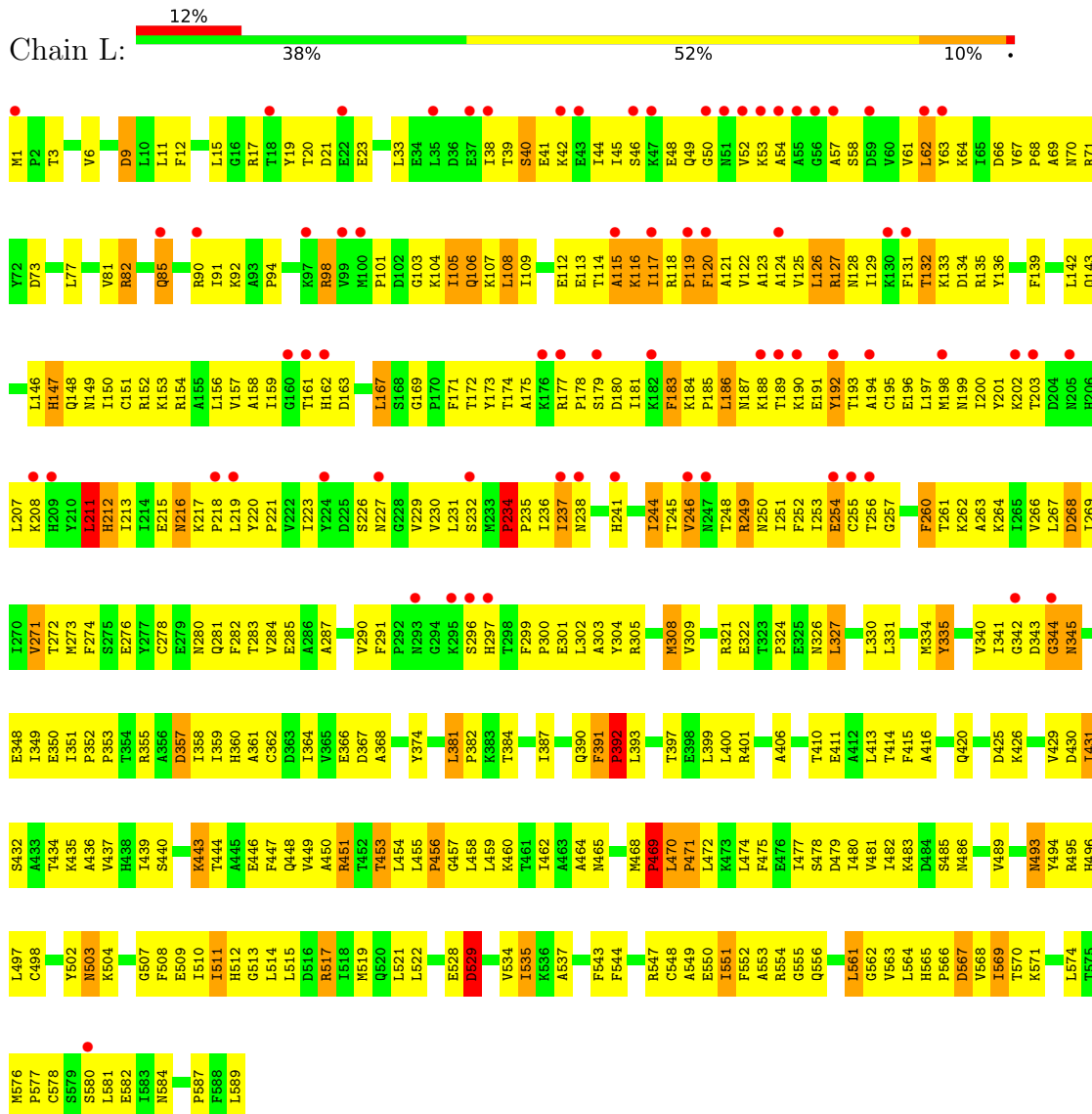


• Molecule 2: Phenylalanyl-tRNA synthetase beta chain

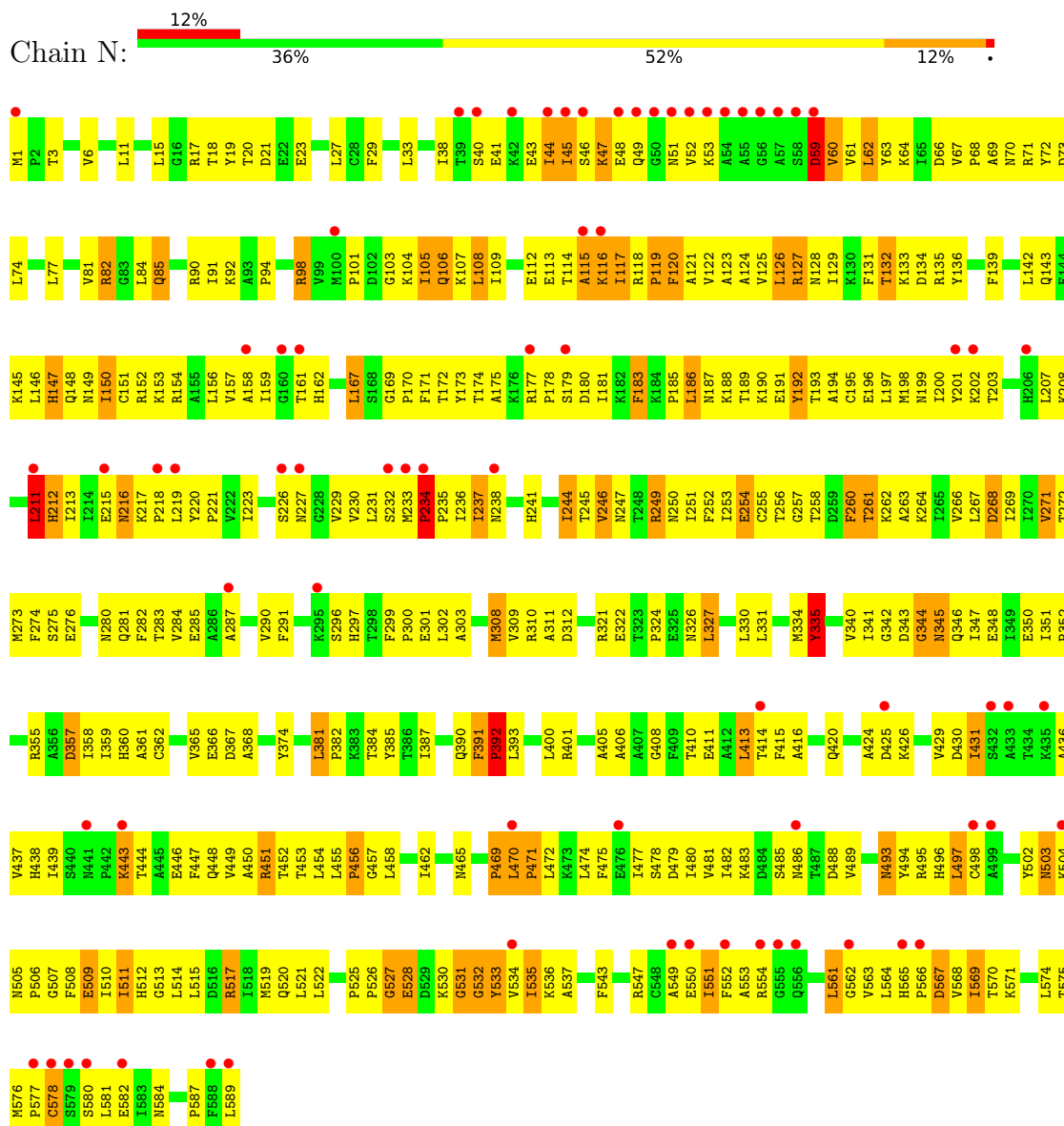




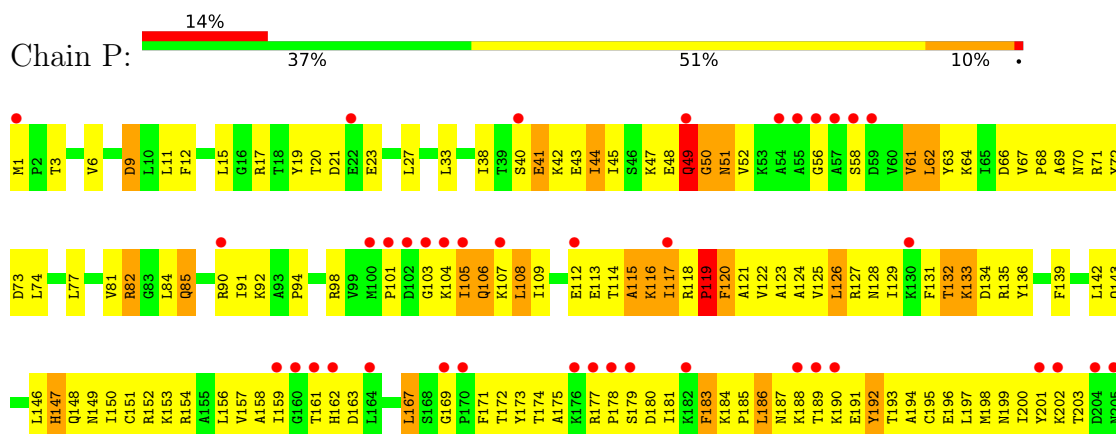
● Molecule 2: Phenylalanyl-tRNA synthetase beta chain

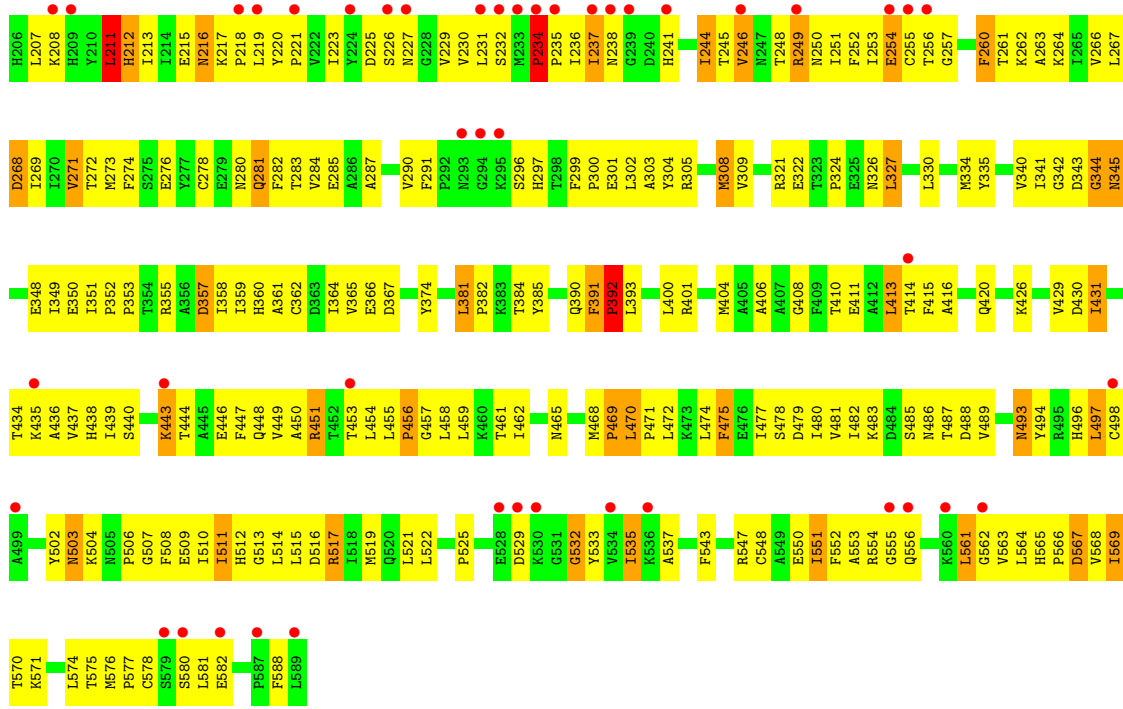


● Molecule 2: Phenylalanyl-tRNA synthetase beta chain



● Molecule 2: Phenylalanyl-tRNA synthetase beta chain





4 Data and refinement statistics i

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	363.34Å 213.88Å 212.96Å 90.00° 125.20° 90.00°	Depositor
Resolution (Å)	30.00 – 3.30 29.99 – 3.30	Depositor EDS
% Data completeness (in resolution range)	96.0 (30.00-3.30) 97.0 (29.99-3.30)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.75 (at 3.31Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.242 , 0.287 0.251 , 0.255	Depositor DCC
R_{free} test set	9780 reflections (5.07%)	wwPDB-VP
Wilson B-factor (Å ²)	94.6	Xtriage
Anisotropy	0.240	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 93.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	0.009 for -h+k-l,-l,-k 0.002 for -h-k-l,l,k 0.000 for 1/2*h+1/2*k+2*1,1/2*h+1/2*k,-1/2*h+1/2*k-l 0.000 for -1/2*h-3/2*k-l,-1/2*h+1/2*k-l,1/2*h+1/2*k 0.000 for -1/2*h+3/2*k-l,1/2*h+1/2*k+l,1/2*h-1/2*k 0.000 for 1/2*h-1/2*k+2*1,-1/2*h+1/2*k,-1/2*h-1/2*k-l 0.000 for -1/2*h+1/2*k+l,1/2*h-1/2*k+l,1/2*h+1/2*k 0.000 for -1/2*h-1/2*k+l,-1/2*h-1/2*k-l,1/2*h-1/2*k 0.000 for 1/2*h+3/2*k,1/2*h-1/2*k,-1/2*h-1/2*k-l 0.000 for 1/2*h-3/2*k,-1/2*h-1/2*k,-1/2*h+1/2*k-l 0.019 for -h-2*1,-k,l	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	59395	wwPDB-VP
Average B, all atoms (Å ²)	120.0	wwPDB-VP

¹Intensities estimated from amplitudes.

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

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.63% of the height of the origin peak. No significant pseudotranslation is detected.*

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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	0.50	0/2664	0.71	0/3609
1	C	0.44	0/4154	0.69	2/5611 (0.0%)
1	E	0.48	0/2591	0.71	1/3511 (0.0%)
1	G	0.46	0/2595	0.70	0/3516
1	I	0.46	0/2626	0.70	0/3558
1	K	0.46	0/2819	0.69	0/3818
1	M	0.42	0/2656	0.67	0/3592
1	O	0.41	0/2601	0.65	0/3523
2	B	0.46	0/4742	0.69	0/6420
2	D	0.40	0/4742	0.66	0/6420
2	F	0.45	0/4742	0.69	0/6420
2	H	0.40	0/4742	0.66	0/6420
2	J	0.44	0/4742	0.69	0/6420
2	L	0.39	0/4742	0.66	0/6420
2	N	0.42	0/4742	0.67	1/6420 (0.0%)
2	P	0.37	0/4742	0.65	1/6420 (0.0%)
All	All	0.43	0/60642	0.68	5/82098 (0.0%)

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	N	0	1

There are no bond length outliers.

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	97	LEU	CA-CB-CG	5.26	127.39	115.30
1	C	165	LEU	CA-CB-CG	5.26	127.39	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	477	LEU	CA-CB-CG	5.10	127.03	115.30
2	N	497	LEU	N-CA-C	-5.06	97.33	111.00
2	P	497	LEU	N-CA-C	-5.02	97.44	111.00

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	N	533	TYR	Sidechain

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	2589	0	2537	259	0
1	C	4058	0	4030	447	0
1	E	2517	0	2462	283	0
1	G	2521	0	2465	300	0
1	I	2551	0	2496	232	0
1	K	2746	0	2632	276	0
1	M	2582	0	2506	316	0
1	O	2527	0	2476	279	0
2	B	4651	0	4751	471	0
2	D	4651	0	4751	452	0
2	F	4651	0	4751	496	0
2	H	4651	0	4751	445	0
2	J	4651	0	4751	452	0
2	L	4651	0	4751	449	0
2	N	4651	0	4751	487	0
2	P	4651	0	4751	453	0
3	A	12	0	8	6	0
3	C	12	0	8	2	0
3	E	12	0	8	1	0
3	G	12	0	8	2	0
3	I	12	0	8	2	0
3	K	12	0	8	7	0
3	M	12	0	8	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	O	12	0	8	5	0
All	All	59395	0	59676	5642	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 47.

All (5642) 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:N:49:GLN:HE21	2:N:52:VAL:HG11	1.06	1.13
2:N:381:LEU:HD23	2:N:382:PRO:HD2	1.30	1.12
2:J:381:LEU:HD23	2:J:382:PRO:HD2	1.26	1.11
2:N:117:ILE:HG23	2:N:217:LYS:HD2	1.33	1.11
1:O:188:GLN:HB2	1:O:206:PRO:HG2	1.33	1.10
2:F:234:PRO:HB2	2:F:235:PRO:HD3	1.31	1.09
1:E:281:ASP:HB3	1:E:282:PRO:HD3	1.14	1.08
1:G:193:SER:HB2	1:G:194:PRO:HD2	1.27	1.08
1:M:213:LEU:HG	2:P:535:ILE:HD11	1.33	1.08
2:F:117:ILE:HG23	2:F:217:LYS:HD2	1.36	1.07
1:M:281:ASP:HB3	1:M:282:PRO:HD2	1.18	1.07
2:B:234:PRO:HB2	2:B:235:PRO:HD3	1.36	1.07
2:F:229:VAL:HG11	2:F:241:HIS:HD2	1.20	1.06
2:J:117:ILE:HG23	2:J:217:LYS:HD2	1.31	1.06
1:M:286:LEU:HD23	1:M:287:GLN:H	1.15	1.06
1:A:281:ASP:HB3	1:A:282:PRO:HD3	1.31	1.06
2:P:40:SER:HB2	2:P:42:LYS:HG2	1.35	1.06
1:M:406:LYS:HD2	2:N:29:PHE:CD1	1.90	1.05
2:N:234:PRO:HB2	2:N:235:PRO:HD3	1.37	1.05
2:P:381:LEU:HD23	2:P:382:PRO:HD2	1.38	1.04
2:H:381:LEU:HD23	2:H:382:PRO:HD2	1.38	1.04
1:C:281:ASP:HB3	1:C:282:PRO:HD3	1.34	1.03
1:K:182:SER:HB3	1:K:185:ILE:HG23	1.35	1.03
2:P:229:VAL:HG11	2:P:241:HIS:HD2	1.24	1.03
2:J:229:VAL:HG11	2:J:241:HIS:HD2	1.23	1.02
1:K:281:ASP:HB3	1:K:282:PRO:HD3	1.41	1.02
2:D:117:ILE:HG23	2:D:217:LYS:HD2	1.41	1.02
1:K:474:ILE:H	1:K:474:ILE:HD12	1.24	1.02
1:M:279:LEU:HB3	1:M:283:ALA:HB2	1.40	1.02
1:M:370:PHE:HB2	1:M:462:GLU:OE2	1.59	1.02
2:B:229:VAL:HG11	2:B:241:HIS:HD2	1.25	1.01
2:D:234:PRO:HB2	2:D:235:PRO:HD3	1.41	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:125:VAL:HG12	2:B:252:PHE:HA	1.41	1.01
2:J:234:PRO:HB2	2:J:235:PRO:HD3	1.41	1.01
2:F:431:ILE:H	2:F:431:ILE:HD12	1.25	1.00
2:B:381:LEU:HD23	2:B:382:PRO:HD2	1.41	1.00
1:E:414:GLU:HB2	1:E:415:PRO:HD3	1.44	1.00
2:H:117:ILE:HG23	2:H:217:LYS:HD2	1.44	1.00
2:L:234:PRO:HB2	2:L:235:PRO:HD3	1.40	1.00
2:D:229:VAL:HG11	2:D:241:HIS:HD2	1.24	0.99
1:C:115:VAL:HG12	1:C:116:ASP:H	1.25	0.99
1:C:414:GLU:HB2	1:C:415:PRO:HD3	1.44	0.99
1:M:406:LYS:HB2	2:N:29:PHE:CZ	1.98	0.99
2:D:125:VAL:HG12	2:D:252:PHE:HA	1.45	0.99
2:H:462:ILE:HG23	2:H:472:LEU:HD12	1.45	0.99
2:L:229:VAL:HG11	2:L:241:HIS:HD2	1.24	0.99
1:E:367:LEU:HD23	1:E:369:GLU:H	1.26	0.99
2:N:229:VAL:HG11	2:N:241:HIS:HD2	1.26	0.99
1:E:343:LYS:HB2	1:E:344:PRO:HD3	1.44	0.98
2:L:125:VAL:HG12	2:L:252:PHE:HA	1.44	0.98
2:N:431:ILE:H	2:N:431:ILE:HD12	1.27	0.98
2:P:535:ILE:HD12	2:P:535:ILE:H	1.22	0.98
1:I:406:LYS:HD2	2:J:29:PHE:CD1	1.97	0.98
1:M:414:GLU:HB2	1:M:415:PRO:HD3	1.44	0.98
2:B:117:ILE:HG23	2:B:217:LYS:HD2	1.42	0.98
1:I:414:GLU:HB2	1:I:415:PRO:HD3	1.41	0.98
2:N:308:MET:SD	2:N:346:GLN:HB3	2.03	0.98
1:C:21:LEU:HD21	1:C:26:LEU:HD22	1.42	0.98
2:P:234:PRO:HB2	2:P:235:PRO:HD3	1.42	0.98
2:H:234:PRO:HB2	2:H:235:PRO:HD3	1.45	0.97
2:D:60:VAL:HG23	2:D:62:LEU:HD22	1.46	0.97
1:O:343:LYS:HB2	1:O:344:PRO:CD	1.94	0.97
1:I:343:LYS:HB2	1:I:344:PRO:CD	1.94	0.97
1:I:210:TYR:HB3	1:I:212:PHE:HE2	1.29	0.97
2:L:431:ILE:H	2:L:431:ILE:HD12	1.28	0.97
2:J:431:ILE:HD12	2:J:431:ILE:H	1.29	0.96
2:F:462:ILE:HG23	2:F:472:LEU:HD12	1.43	0.96
1:M:343:LYS:HB2	1:M:344:PRO:HD3	1.46	0.96
2:L:71:ARG:HG3	2:L:355:ARG:NH1	1.80	0.96
1:E:343:LYS:HB2	1:E:344:PRO:CD	1.95	0.96
1:G:343:LYS:HB2	1:G:344:PRO:CD	1.94	0.96
1:O:343:LYS:HB2	1:O:344:PRO:HD3	1.48	0.96
2:P:125:VAL:HG12	2:P:252:PHE:HA	1.46	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:343:LYS:HB2	1:K:344:PRO:CD	1.95	0.95
2:H:125:VAL:HG12	2:H:252:PHE:HA	1.47	0.95
2:P:431:ILE:H	2:P:431:ILE:HD12	1.29	0.95
2:H:229:VAL:HG11	2:H:241:HIS:HD2	1.29	0.95
2:L:117:ILE:HG23	2:L:217:LYS:HD2	1.44	0.95
1:M:343:LYS:HB2	1:M:344:PRO:CD	1.95	0.95
2:L:381:LEU:HD23	2:L:382:PRO:HD2	1.48	0.95
1:C:343:LYS:HB2	1:C:344:PRO:CD	1.95	0.95
2:F:381:LEU:HD23	2:F:382:PRO:HD2	1.44	0.95
1:G:398:LEU:HA	1:G:495:LEU:HD23	1.48	0.95
1:K:343:LYS:HB2	1:K:344:PRO:HD3	1.50	0.94
1:A:414:GLU:HB2	1:A:415:PRO:HD3	1.46	0.94
1:C:55:LEU:HD21	1:C:171:LYS:HD2	1.47	0.94
2:J:125:VAL:HG12	2:J:252:PHE:HA	1.45	0.94
2:D:381:LEU:HD23	2:D:382:PRO:HD2	1.47	0.94
2:F:182:LYS:HD3	1:K:472:ASN:OD1	1.66	0.94
1:M:212:PHE:CZ	2:P:537:ALA:HB2	2.02	0.94
1:O:374:GLU:OE1	3:O:509:PHE:HB2	1.68	0.94
1:K:414:GLU:HB2	1:K:415:PRO:HD3	1.49	0.94
1:O:414:GLU:HB2	1:O:415:PRO:HD3	1.49	0.94
2:D:431:ILE:H	2:D:431:ILE:HD12	1.33	0.94
2:H:71:ARG:HG3	2:H:355:ARG:NH1	1.82	0.94
2:L:535:ILE:H	2:L:535:ILE:HD12	1.33	0.94
1:A:343:LYS:HB2	1:A:344:PRO:CD	1.98	0.93
1:A:343:LYS:HB2	1:A:344:PRO:HD3	1.50	0.93
2:J:45:ILE:HA	2:J:48:GLU:HG2	1.47	0.93
1:I:343:LYS:HB2	1:I:344:PRO:HD3	1.51	0.93
2:P:462:ILE:HG23	2:P:472:LEU:HD12	1.51	0.93
2:D:159:ILE:HG22	2:D:255:CYS:SG	2.08	0.93
2:B:431:ILE:HD12	2:B:431:ILE:H	1.34	0.93
1:M:193:SER:OG	1:M:194:PRO:HD2	1.67	0.93
1:M:406:LYS:HD2	2:N:29:PHE:CE1	2.02	0.93
1:O:468:LYS:HE3	1:O:495:LEU:HB2	1.47	0.93
1:E:268:HIS:HB3	1:E:272:ASP:OD1	1.69	0.93
1:O:403:LEU:HD22	1:O:419:VAL:HG12	1.50	0.93
1:I:213:LEU:HD21	2:L:534:VAL:HG12	1.52	0.92
2:F:566:PRO:HB3	1:G:197:ILE:HG23	1.52	0.91
2:F:391:PHE:HD2	2:F:392:PRO:HD2	1.34	0.91
2:N:125:VAL:HG12	2:N:252:PHE:HA	1.52	0.91
2:J:159:ILE:HG22	2:J:255:CYS:SG	2.10	0.91
1:M:324:LEU:HB3	1:M:357:PHE:CD1	2.05	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:199:SER:HA	1:O:202:TRP:NE1	1.85	0.91
2:P:117:ILE:HG23	2:P:217:LYS:HD2	1.51	0.91
2:F:229:VAL:HG11	2:F:241:HIS:CD2	2.06	0.91
2:P:159:ILE:HG22	2:P:255:CYS:SG	2.11	0.91
1:M:283:ALA:O	1:M:284:GLU:HB2	1.70	0.91
2:D:462:ILE:HG23	2:D:472:LEU:HD12	1.50	0.91
1:M:279:LEU:HD23	1:M:283:ALA:H	1.35	0.91
2:H:126:LEU:HG	2:H:129:ILE:HD11	1.52	0.91
2:L:126:LEU:HG	2:L:129:ILE:HD11	1.52	0.91
2:N:310:ARG:HH22	2:N:312:ASP:HB2	1.35	0.91
2:D:321:ARG:HD3	2:H:321:ARG:HD3	1.53	0.90
1:G:414:GLU:HB2	1:G:415:PRO:HD3	1.52	0.90
1:C:26:LEU:O	1:C:30:LEU:HG	1.71	0.90
2:N:462:ILE:HG23	2:N:472:LEU:HD12	1.51	0.90
1:K:461:LEU:O	1:K:465:THR:HG22	1.71	0.90
2:N:406:ALA:HA	2:P:406:ALA:HA	1.53	0.90
1:O:193:SER:O	1:O:197:ILE:HG12	1.69	0.90
1:M:224:LEU:HD22	2:N:401:ARG:NH1	1.87	0.90
2:F:535:ILE:H	2:F:535:ILE:HD12	1.34	0.90
1:C:114:ARG:HG2	1:C:114:ARG:HH11	1.34	0.90
1:G:195:GLU:HA	1:G:198:SER:HB3	1.53	0.90
1:I:281:ASP:HB3	1:I:282:PRO:HD3	1.52	0.90
1:G:193:SER:HB2	1:G:194:PRO:CD	2.01	0.89
2:B:159:ILE:HG22	2:B:255:CYS:SG	2.12	0.89
2:F:551:ILE:HD11	2:F:561:LEU:HB2	1.54	0.89
1:C:471:ILE:HG22	1:C:472:ASN:H	1.36	0.89
2:H:431:ILE:H	2:H:431:ILE:HD12	1.34	0.89
1:O:224:LEU:HD22	2:P:401:ARG:NH1	1.87	0.89
1:G:281:ASP:HB3	1:G:282:PRO:HD3	1.53	0.89
1:O:495:LEU:HD12	1:O:496:ASP:N	1.87	0.89
2:B:399:LEU:HD13	1:C:494:ARG:HG3	1.55	0.89
2:H:535:ILE:HD12	2:H:535:ILE:H	1.35	0.89
1:G:362:LEU:HD22	1:G:475:ARG:HH22	1.35	0.88
2:D:126:LEU:HG	2:D:129:ILE:HD11	1.53	0.88
1:E:267:GLN:HB3	2:F:152:ARG:HD2	1.53	0.88
1:C:343:LYS:HB2	1:C:344:PRO:HD3	1.52	0.88
1:E:212:PHE:CE2	2:H:549:ALA:HB2	2.09	0.88
1:G:343:LYS:HB2	1:G:344:PRO:HD3	1.54	0.88
2:L:45:ILE:HA	2:L:48:GLU:HG2	1.56	0.88
2:N:49:GLN:NE2	2:N:52:VAL:HG11	1.89	0.88
2:B:462:ILE:HG23	2:B:472:LEU:HD12	1.53	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:281:ASP:CB	1:E:282:PRO:HD3	2.04	0.88
2:F:125:VAL:HG12	2:F:252:PHE:HA	1.55	0.88
1:M:281:ASP:HB3	1:M:282:PRO:CD	2.03	0.88
2:D:551:ILE:HD11	2:D:561:LEU:HB2	1.54	0.88
2:L:41:GLU:HA	2:L:44:ILE:HB	1.55	0.88
1:O:199:SER:HA	1:O:202:TRP:HE1	1.36	0.88
1:I:414:GLU:CB	1:I:415:PRO:HD3	2.04	0.87
1:O:281:ASP:HB3	1:O:282:PRO:HD3	1.52	0.87
2:B:71:ARG:HG3	2:B:355:ARG:NH1	1.89	0.87
1:I:473:ASN:O	1:I:476:GLU:HB2	1.75	0.87
1:O:477:LEU:HA	1:O:482:VAL:HG23	1.54	0.87
2:J:512:HIS:CE1	1:K:216:GLY:H	1.91	0.87
2:N:391:PHE:HD2	2:N:392:PRO:HD2	1.36	0.87
2:N:211:LEU:HG	2:N:212:HIS:H	1.40	0.87
2:L:159:ILE:HG22	2:L:255:CYS:SG	2.15	0.87
2:N:126:LEU:HG	2:N:129:ILE:HD11	1.56	0.87
1:E:281:ASP:HB3	1:E:282:PRO:CD	2.04	0.87
1:M:213:LEU:CG	2:P:535:ILE:HD11	2.05	0.87
1:M:277:PHE:CE1	1:M:359:ASN:HB2	2.10	0.87
2:N:175:ALA:HB1	2:N:219:LEU:HB3	1.56	0.86
2:L:175:ALA:HB1	2:L:219:LEU:HB3	1.56	0.86
2:B:508:PHE:HE1	2:B:562:GLY:HA2	1.40	0.86
2:B:551:ILE:HD11	2:B:561:LEU:HB2	1.57	0.86
2:P:126:LEU:HG	2:P:129:ILE:HD11	1.54	0.86
1:M:387:LEU:HD23	1:M:455:ILE:HB	1.55	0.86
1:G:402:GLN:O	1:G:421:SER:HA	1.75	0.86
2:J:133:LYS:H	2:J:133:LYS:HD2	1.39	0.86
1:M:286:LEU:CD2	1:M:287:GLN:H	1.88	0.86
2:D:229:VAL:HG11	2:D:241:HIS:CD2	2.10	0.86
2:N:133:LYS:H	2:N:133:LYS:HD2	1.37	0.86
2:P:175:ALA:HB1	2:P:219:LEU:HB3	1.57	0.86
2:D:341:ILE:HD11	2:D:348:GLU:HB2	1.58	0.85
1:A:477:LEU:HD13	1:A:478:VAL:HG23	1.58	0.85
1:C:472:ASN:H	1:C:472:ASN:HD22	1.23	0.85
1:E:414:GLU:CB	1:E:415:PRO:HD3	2.07	0.85
1:O:387:LEU:HD23	1:O:455:ILE:HB	1.56	0.85
2:P:229:VAL:HG11	2:P:241:HIS:CD2	2.10	0.85
1:A:199:SER:O	1:A:201:SER:N	2.10	0.85
1:A:387:LEU:HD23	1:A:455:ILE:HB	1.59	0.85
2:B:126:LEU:HG	2:B:129:ILE:HD11	1.57	0.85
2:L:229:VAL:HG11	2:L:241:HIS:CD2	2.10	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:471:ILE:HG22	1:C:472:ASN:N	1.90	0.85
2:F:159:ILE:HG22	2:F:255:CYS:SG	2.16	0.85
1:K:387:LEU:HD23	1:K:455:ILE:HB	1.58	0.85
2:N:310:ARG:NH2	2:N:312:ASP:HB2	1.89	0.85
2:P:71:ARG:HG3	2:P:355:ARG:NH1	1.92	0.85
1:C:469:TYR:CZ	1:C:493:CYS:HB2	2.12	0.85
2:D:535:ILE:H	2:D:535:ILE:HD12	1.41	0.85
2:J:551:ILE:HD11	2:J:561:LEU:HB2	1.56	0.85
2:B:133:LYS:H	2:B:133:LYS:HD2	1.42	0.85
2:P:217:LYS:HB3	2:P:218:PRO:HD2	1.58	0.85
1:E:406:LYS:HD2	2:F:29:PHE:CD1	2.12	0.84
2:H:175:ALA:HB1	2:H:219:LEU:HB3	1.59	0.84
2:L:551:ILE:HD11	2:L:561:LEU:HB2	1.57	0.84
1:E:217:VAL:HG23	2:H:509:GLU:HB2	1.58	0.84
1:E:367:LEU:HD23	1:E:369:GLU:N	1.91	0.84
2:N:82:ARG:HG2	2:N:335:TYR:OH	1.77	0.84
1:A:414:GLU:CB	1:A:415:PRO:HD3	2.08	0.84
2:F:71:ARG:HH22	2:F:366:GLU:CD	1.81	0.84
1:G:364:ALA:C	1:G:366:HIS:H	1.79	0.84
1:M:414:GLU:CB	1:M:415:PRO:HD3	2.06	0.84
2:F:133:LYS:H	2:F:133:LYS:HD2	1.40	0.84
2:J:566:PRO:HB3	1:K:197:ILE:HG22	1.60	0.84
1:K:224:LEU:HD22	2:L:401:ARG:NH1	1.92	0.84
1:A:196:MET:HA	1:A:201:SER:HB3	1.60	0.83
2:J:229:VAL:HG11	2:J:241:HIS:CD2	2.11	0.83
1:M:212:PHE:HZ	2:P:537:ALA:HB2	1.40	0.83
2:N:551:ILE:HD11	2:N:561:LEU:HB2	1.59	0.83
2:P:41:GLU:HB3	2:P:58:SER:HA	1.59	0.83
1:C:420:PHE:CD2	1:C:431:GLU:HA	2.11	0.83
2:H:159:ILE:HG22	2:H:255:CYS:SG	2.16	0.83
2:N:334:MET:O	2:N:335:TYR:HB2	1.79	0.83
1:C:140:LEU:HD21	1:C:164:LEU:HD12	1.60	0.83
1:C:414:GLU:CB	1:C:415:PRO:HD3	2.09	0.83
2:F:334:MET:O	2:F:335:TYR:HB2	1.77	0.83
1:M:208:LYS:HG2	1:M:209:PRO:HD2	1.59	0.83
1:M:289:PRO:O	1:M:291:ASP:N	2.12	0.83
2:D:211:LEU:HG	2:D:212:HIS:H	1.43	0.83
2:P:508:PHE:HE1	2:P:562:GLY:HA2	1.41	0.83
2:B:229:VAL:HG11	2:B:241:HIS:CD2	2.14	0.83
2:J:217:LYS:HB3	2:J:218:PRO:HD2	1.60	0.83
2:P:551:ILE:HD11	2:P:561:LEU:HB2	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:387:LEU:HD23	1:I:455:ILE:HB	1.58	0.83
2:L:217:LYS:HB3	2:L:218:PRO:HD2	1.61	0.83
2:F:535:ILE:HD11	1:G:215:HIS:HE1	1.42	0.83
1:C:431:GLU:O	1:C:432:VAL:HB	1.79	0.83
1:E:280:ARG:HB3	2:F:440:SER:HB2	1.61	0.83
2:F:535:ILE:HD11	1:G:215:HIS:CE1	2.13	0.83
1:K:414:GLU:CB	1:K:415:PRO:HD3	2.09	0.83
1:G:205:ARG:H	1:G:206:PRO:CD	1.92	0.83
1:I:479:GLY:HA3	2:J:415:PHE:CE1	2.14	0.83
2:N:535:ILE:H	2:N:535:ILE:HD12	1.43	0.83
2:H:551:ILE:HD11	2:H:561:LEU:HB2	1.59	0.82
2:J:462:ILE:HG23	2:J:472:LEU:HD12	1.61	0.82
1:G:192:LEU:HB2	1:G:207:PHE:CE1	2.14	0.82
2:J:310:ARG:HH22	2:J:312:ASP:HB2	1.43	0.82
2:J:15:LEU:HD23	2:J:81:VAL:HG13	1.62	0.82
2:F:126:LEU:HG	2:F:129:ILE:HD11	1.62	0.82
1:G:387:LEU:HD23	1:G:455:ILE:HB	1.61	0.82
2:L:211:LEU:HG	2:L:212:HIS:H	1.43	0.82
2:J:175:ALA:HB1	2:J:219:LEU:HB3	1.59	0.82
2:L:62:LEU:HD23	2:L:62:LEU:H	1.43	0.82
2:N:229:VAL:HG11	2:N:241:HIS:CD2	2.12	0.82
2:H:211:LEU:HG	2:H:212:HIS:H	1.43	0.82
2:H:554:ARG:HH11	2:H:554:ARG:HG2	1.45	0.82
1:K:182:SER:HB3	1:K:185:ILE:CG2	2.10	0.82
2:B:420:GLN:HG3	2:B:448:GLN:NE2	1.95	0.82
1:C:23:SER:O	1:C:37:VAL:HG11	1.78	0.82
2:F:175:ALA:HB1	2:F:219:LEU:HB3	1.62	0.82
2:N:60:VAL:HG12	2:N:61:VAL:H	1.44	0.82
1:C:267:GLN:HE22	2:D:262:LYS:HE2	1.44	0.81
2:D:70:ASN:HD22	2:D:71:ARG:NH1	1.78	0.81
2:D:133:LYS:H	2:D:133:LYS:HD2	1.41	0.81
2:D:175:ALA:HB1	2:D:219:LEU:HB3	1.62	0.81
1:G:287:GLN:O	1:G:288:LEU:HD12	1.80	0.81
2:J:126:LEU:HG	2:J:129:ILE:HD11	1.60	0.81
1:C:402:GLN:O	1:C:421:SER:HA	1.80	0.81
2:D:217:LYS:HB3	2:D:218:PRO:HD2	1.61	0.81
2:F:217:LYS:HB3	2:F:218:PRO:HD2	1.62	0.81
2:H:217:LYS:HB3	2:H:218:PRO:HD2	1.60	0.81
1:O:205:ARG:HG3	1:O:206:PRO:HD2	1.60	0.81
2:J:391:PHE:HD2	2:J:392:PRO:HD2	1.45	0.81
1:M:248:THR:HB	1:M:354:ASP:OD2	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:196:GLU:O	2:N:200:ILE:HG23	1.79	0.81
2:B:175:ALA:HB1	2:B:219:LEU:HB3	1.62	0.81
2:N:159:ILE:HG22	2:N:255:CYS:SG	2.21	0.81
2:L:462:ILE:HG23	2:L:472:LEU:HD12	1.62	0.81
2:H:334:MET:O	2:H:335:TYR:HB2	1.78	0.81
1:M:284:GLU:HG3	1:M:320:ARG:HB3	1.63	0.81
1:A:281:ASP:HB3	1:A:282:PRO:CD	2.11	0.81
2:J:196:GLU:O	2:J:200:ILE:HG23	1.80	0.81
2:B:41:GLU:O	2:B:44:ILE:HG22	1.80	0.81
2:D:71:ARG:HG3	2:D:355:ARG:NH1	1.95	0.81
1:O:281:ASP:OD2	2:P:483:LYS:HD3	1.81	0.81
2:P:211:LEU:HG	2:P:212:HIS:H	1.46	0.81
1:C:419:VAL:O	1:C:432:VAL:HG12	1.81	0.81
1:C:475:ARG:HG3	1:C:475:ARG:HH11	1.44	0.81
2:J:334:MET:O	2:J:335:TYR:HB2	1.79	0.81
1:C:281:ASP:HB3	1:C:282:PRO:CD	2.10	0.81
2:J:71:ARG:HH22	2:J:366:GLU:CD	1.84	0.81
2:L:236:ILE:HG22	2:L:237:ILE:HG13	1.63	0.81
1:C:188:GLN:HA	1:C:188:GLN:HE21	1.46	0.80
2:F:67:VAL:HG13	2:F:68:PRO:HD2	1.61	0.80
1:K:233:GLN:HE22	1:K:495:LEU:HG	1.43	0.80
1:K:287:GLN:O	1:K:288:LEU:HD13	1.80	0.80
1:K:402:GLN:O	1:K:421:SER:HA	1.80	0.80
2:L:426:LYS:HA	2:L:571:LYS:HE2	1.63	0.80
2:N:49:GLN:HE21	2:N:52:VAL:CG1	1.93	0.80
2:N:506:PRO:HD2	1:O:191:GLU:HB2	1.60	0.80
1:E:212:PHE:HE2	2:H:549:ALA:HB2	1.46	0.80
2:N:217:LYS:HB3	2:N:218:PRO:HD2	1.62	0.80
1:O:414:GLU:CB	1:O:415:PRO:HD3	2.10	0.80
1:A:252:ILE:HD13	1:A:279:LEU:HD11	1.64	0.80
2:B:211:LEU:HG	2:B:212:HIS:H	1.45	0.80
2:D:508:PHE:HE1	2:D:562:GLY:HA2	1.47	0.80
2:H:133:LYS:H	2:H:133:LYS:HD2	1.46	0.80
1:I:224:LEU:HD22	2:J:401:ARG:NH1	1.95	0.80
2:N:341:ILE:HD11	2:N:348:GLU:HB2	1.64	0.80
1:E:281:ASP:OD2	2:F:483:LYS:HD3	1.81	0.80
1:I:263:PHE:CE2	1:I:441:GLU:HG3	2.16	0.80
2:P:133:LYS:H	2:P:133:LYS:HD2	1.44	0.80
1:I:361:THR:HG22	1:I:362:LEU:HD23	1.63	0.80
2:L:132:THR:HG23	2:L:133:LYS:HD2	1.64	0.80
1:E:367:LEU:HG	1:E:368:ALA:H	1.43	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:475:ARG:HH11	1:E:475:ARG:HG3	1.46	0.80
2:F:534:VAL:HG22	2:F:552:PHE:HB2	1.63	0.80
2:L:334:MET:O	2:L:335:TYR:HB2	1.81	0.80
1:A:188:GLN:HA	1:A:206:PRO:O	1.82	0.80
1:E:263:PHE:CD2	1:E:441:GLU:HG3	2.16	0.80
2:H:480:ILE:HG12	2:H:496:HIS:CD2	2.17	0.80
2:L:40:SER:O	2:L:44:ILE:HD12	1.81	0.80
2:H:40:SER:HB3	2:H:59:ASP:HA	1.64	0.79
2:B:535:ILE:H	2:B:535:ILE:HD12	1.47	0.79
1:I:281:ASP:C	1:I:283:ALA:H	1.85	0.79
1:K:280:ARG:HH11	1:K:280:ARG:HB2	1.47	0.79
1:O:263:PHE:CE2	1:O:441:GLU:HG3	2.16	0.79
1:A:192:LEU:HD21	2:D:566:PRO:HG3	1.63	0.79
1:K:367:LEU:HD12	1:K:367:LEU:H	1.45	0.79
1:O:471:ILE:HG22	1:O:472:ASN:N	1.95	0.79
2:P:70:ASN:HD22	2:P:71:ARG:NH1	1.80	0.79
2:B:217:LYS:HB3	2:B:218:PRO:HD2	1.64	0.79
2:F:508:PHE:HE1	2:F:562:GLY:HA2	1.45	0.79
2:F:512:HIS:CE1	1:G:216:GLY:H	1.99	0.79
1:M:288:LEU:HB3	1:M:289:PRO:HD2	1.63	0.79
2:D:196:GLU:O	2:D:200:ILE:HG23	1.83	0.79
1:E:477:LEU:HD12	1:E:478:VAL:CG2	2.13	0.79
1:E:224:LEU:HD22	2:F:401:ARG:NH1	1.97	0.79
1:G:224:LEU:HD22	2:H:401:ARG:NH1	1.96	0.79
1:M:279:LEU:HG	1:M:281:ASP:HB2	1.61	0.79
1:C:477:LEU:HA	1:C:482:VAL:HG23	1.63	0.79
2:F:211:LEU:HG	2:F:212:HIS:H	1.48	0.79
1:G:458:GLY:HA3	3:G:509:PHE:N	1.98	0.79
2:N:71:ARG:HH22	2:N:366:GLU:CD	1.87	0.79
1:C:80:VAL:O	1:C:84:ILE:HG22	1.82	0.79
2:J:45:ILE:HG12	2:J:48:GLU:OE2	1.83	0.79
2:B:341:ILE:HD11	2:B:348:GLU:HB2	1.65	0.79
1:C:50:VAL:HG12	1:C:51:ILE:HG23	1.65	0.79
1:C:477:LEU:HD23	1:C:486:MET:SD	2.23	0.79
1:M:286:LEU:HD23	1:M:287:GLN:N	1.96	0.79
2:H:196:GLU:O	2:H:200:ILE:HG23	1.83	0.78
2:H:229:VAL:HG11	2:H:241:HIS:CD2	2.17	0.78
2:J:512:HIS:HE1	1:K:215:HIS:HA	1.47	0.78
1:O:196:MET:HG2	1:O:202:TRP:HB3	1.63	0.78
2:D:132:THR:HG23	2:D:133:LYS:HD2	1.64	0.78
1:E:286:LEU:HD22	1:E:322:ASN:OD1	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:363:ASP:H	1:G:366:HIS:HA	1.48	0.78
2:L:480:ILE:HG12	2:L:496:HIS:CD2	2.19	0.78
2:N:236:ILE:HG22	2:N:237:ILE:HG13	1.65	0.78
1:C:224:LEU:HD22	2:D:401:ARG:NH1	1.98	0.78
1:I:267:GLN:HB3	2:J:152:ARG:HH11	1.48	0.78
1:K:192:LEU:H	1:K:192:LEU:HD12	1.48	0.78
2:B:236:ILE:HG22	2:B:237:ILE:HG13	1.65	0.78
1:C:474:ILE:HD11	1:C:477:LEU:HD11	1.64	0.78
1:G:414:GLU:CB	1:G:415:PRO:HD3	2.12	0.78
2:H:426:LYS:HA	2:H:571:LYS:HE2	1.65	0.78
1:I:210:TYR:HB3	1:I:212:PHE:CE2	2.16	0.78
1:I:406:LYS:HB2	2:J:29:PHE:CZ	2.18	0.78
2:L:133:LYS:HD2	2:L:133:LYS:H	1.46	0.78
1:M:233:GLN:HE22	1:M:495:LEU:HG	1.47	0.78
2:N:236:ILE:N	2:N:236:ILE:HD12	1.99	0.78
2:N:426:LYS:HA	2:N:571:LYS:HE2	1.66	0.78
1:O:266:GLN:HG2	1:O:271:ARG:HH12	1.47	0.78
1:C:498:GLU:HB3	1:C:499:PRO:HD3	1.66	0.78
2:J:426:LYS:HA	2:J:571:LYS:HE2	1.66	0.78
2:P:334:MET:O	2:P:335:TYR:HB2	1.82	0.78
2:D:15:LEU:HD23	2:D:81:VAL:HG13	1.66	0.78
2:J:211:LEU:HG	2:J:212:HIS:H	1.48	0.78
2:B:391:PHE:HD2	2:B:392:PRO:HD2	1.47	0.78
2:J:70:ASN:HD22	2:J:71:ARG:NH1	1.82	0.78
1:M:279:LEU:HD23	1:M:283:ALA:N	1.99	0.78
2:B:334:MET:O	2:B:335:TYR:HB2	1.83	0.78
1:E:282:PRO:CD	2:F:437:VAL:HG13	2.14	0.78
2:J:187:ASN:C	2:J:188:LYS:HD2	2.04	0.78
2:L:42:LYS:HG2	2:L:53:LYS:HD3	1.66	0.78
1:E:281:ASP:HB2	2:F:438:HIS:HB2	1.65	0.78
2:J:535:ILE:H	2:J:535:ILE:HD12	1.47	0.78
1:M:467:ILE:HD12	1:M:467:ILE:H	1.48	0.78
2:P:196:GLU:O	2:P:200:ILE:HG23	1.84	0.78
2:B:508:PHE:CE1	2:B:562:GLY:HA2	2.19	0.78
1:C:431:GLU:HG2	1:C:432:VAL:H	1.48	0.78
2:H:125:VAL:HG23	2:H:285:GLU:HB3	1.66	0.78
2:L:70:ASN:HD22	2:L:71:ARG:NH1	1.82	0.78
2:B:185:PRO:HG2	2:B:188:LYS:HB2	1.66	0.77
2:N:132:THR:HG23	2:N:133:LYS:HD2	1.65	0.77
1:O:229:LYS:HE3	1:O:491:PRO:O	1.84	0.77
2:D:62:LEU:HD23	2:D:62:LEU:H	1.49	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:15:LEU:HD23	2:N:81:VAL:HG13	1.66	0.77
1:K:280:ARG:HB2	1:K:280:ARG:NH1	2.00	0.77
2:L:196:GLU:O	2:L:200:ILE:HG23	1.83	0.77
1:M:374:GLU:OE1	3:M:509:PHE:HA	1.85	0.77
1:E:466:MET:SD	1:E:474:ILE:HG12	2.23	0.77
1:G:205:ARG:H	1:G:206:PRO:HD2	1.49	0.77
2:J:125:VAL:HG23	2:J:285:GLU:HB3	1.67	0.77
2:B:260:PHE:CE1	2:B:264:LYS:HD3	2.19	0.77
2:N:125:VAL:HG23	2:N:285:GLU:HB3	1.64	0.77
2:F:82:ARG:HG2	2:F:335:TYR:OH	1.85	0.77
2:H:420:GLN:HG3	2:H:448:GLN:NE2	2.00	0.77
1:A:408:ALA:HB2	1:A:418:GLU:HG3	1.66	0.77
1:I:233:GLN:NE2	1:I:497:ALA:HB2	2.00	0.77
1:K:480:HIS:H	1:K:480:HIS:CD2	1.99	0.77
2:P:508:PHE:CE1	2:P:562:GLY:HA2	2.19	0.77
2:B:132:THR:HG23	2:B:133:LYS:HD2	1.66	0.77
2:D:40:SER:HA	2:D:62:LEU:HD21	1.67	0.77
2:F:196:GLU:O	2:F:200:ILE:HG23	1.84	0.77
2:B:260:PHE:HE1	2:B:264:LYS:HD3	1.49	0.77
1:C:50:VAL:HG13	1:C:181:PHE:HA	1.67	0.77
2:D:185:PRO:HG2	2:D:188:LYS:HB2	1.67	0.77
1:E:387:LEU:HD23	1:E:455:ILE:HB	1.65	0.77
1:K:227:LEU:HD23	1:K:465:THR:HG21	1.66	0.77
2:N:47:LYS:HA	2:N:47:LYS:HE3	1.66	0.77
1:M:422:TYR:HD1	1:M:423:HIS:H	1.33	0.77
1:A:299:THR:HG21	1:A:305:TYR:CE1	2.20	0.76
2:B:196:GLU:O	2:B:200:ILE:HG23	1.84	0.76
2:F:187:ASN:C	2:F:188:LYS:HD2	2.04	0.76
1:K:374:GLU:OE1	3:K:509:PHE:HA	1.85	0.76
1:K:477:LEU:HA	1:K:482:VAL:HG23	1.66	0.76
1:O:224:LEU:HD22	2:P:401:ARG:HH12	1.50	0.76
2:F:125:VAL:HG23	2:F:285:GLU:HB3	1.66	0.76
1:K:282:PRO:HD2	2:L:437:VAL:HG13	1.65	0.76
2:N:420:GLN:HG3	2:N:448:GLN:NE2	1.99	0.76
2:D:40:SER:HB3	2:D:42:LYS:HG2	1.66	0.76
2:D:554:ARG:HG2	2:D:554:ARG:HH11	1.50	0.76
1:E:358:ARG:O	1:E:368:ALA:HB1	1.85	0.76
1:G:279:LEU:HD11	1:G:322:ASN:CB	2.16	0.76
1:M:265:PRO:HA	1:M:300:HIS:HE1	1.49	0.76
2:F:426:LYS:HA	2:F:571:LYS:HE2	1.67	0.76
2:H:62:LEU:HD23	2:H:62:LEU:H	1.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:494:ARG:O	1:K:495:LEU:HG	1.85	0.76
1:M:279:LEU:CG	1:M:281:ASP:HB2	2.15	0.76
2:F:236:ILE:N	2:F:236:ILE:HD12	2.01	0.76
2:H:508:PHE:HE1	2:H:562:GLY:HA2	1.50	0.76
1:E:311:LYS:HD3	2:F:261:THR:HG21	1.68	0.76
2:N:508:PHE:HE1	2:N:562:GLY:HA2	1.51	0.76
1:C:77:GLU:HG2	1:C:106:LYS:HG2	1.68	0.76
1:C:387:LEU:HD23	1:C:455:ILE:HB	1.68	0.76
1:I:233:GLN:HE22	1:I:497:ALA:HB2	1.51	0.76
2:P:15:LEU:HD23	2:P:81:VAL:HG13	1.68	0.76
1:C:85:PRO:HB2	1:C:86:PRO:HD2	1.65	0.76
1:M:324:LEU:HB3	1:M:357:PHE:HD1	1.50	0.76
1:E:267:GLN:NE2	2:F:156:LEU:HD21	2.01	0.76
1:G:281:ASP:HB3	1:G:282:PRO:CD	2.16	0.76
1:K:414:GLU:HB3	2:L:362:CYS:HB3	1.68	0.75
2:L:391:PHE:HD2	2:L:392:PRO:HD2	1.49	0.75
1:M:267:GLN:HA	2:N:152:ARG:HD2	1.66	0.75
2:D:236:ILE:HG22	2:D:237:ILE:HG13	1.67	0.75
2:F:260:PHE:HE1	2:F:264:LYS:HD3	1.51	0.75
2:J:341:ILE:HD11	2:J:348:GLU:HB2	1.67	0.75
1:K:196:MET:O	1:K:202:TRP:HD1	1.68	0.75
1:M:266:GLN:HB2	1:M:312:TYR:HE2	1.50	0.75
2:N:509:GLU:HA	1:O:210:TYR:OH	1.86	0.75
1:O:267:GLN:HE21	2:P:262:LYS:HE2	1.49	0.75
1:O:299:THR:HG21	1:O:305:TYR:CE1	2.21	0.75
1:E:265:PRO:HD3	1:E:310:TYR:CE1	2.21	0.75
2:J:185:PRO:HG2	2:J:188:LYS:HB2	1.69	0.75
2:P:125:VAL:HG23	2:P:285:GLU:HB3	1.67	0.75
1:I:361:THR:HG22	1:I:362:LEU:H	1.51	0.75
2:P:391:PHE:HD2	2:P:392:PRO:HD2	1.50	0.75
1:C:414:GLU:HB3	2:D:362:CYS:HB3	1.69	0.75
2:P:185:PRO:HG2	2:P:188:LYS:HB2	1.69	0.75
2:D:334:MET:O	2:D:335:TYR:HB2	1.85	0.75
2:H:185:PRO:HG2	2:H:188:LYS:HB2	1.68	0.75
1:I:414:GLU:HB3	2:J:362:CYS:HB3	1.69	0.75
1:I:468:LYS:HD3	1:I:496:ASP:HA	1.67	0.75
2:B:82:ARG:HG2	2:B:335:TYR:OH	1.86	0.75
1:C:50:VAL:HA	1:C:180:ALA:HB3	1.67	0.75
1:G:477:LEU:HA	1:G:482:VAL:HG23	1.68	0.75
1:K:299:THR:HG21	1:K:305:TYR:CE1	2.21	0.75
1:C:194:PRO:HA	1:C:197:ILE:HD13	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:259:PHE:HD2	1:G:264:GLN:HG2	1.52	0.75
2:H:236:ILE:HG22	2:H:237:ILE:HG13	1.67	0.75
2:B:187:ASN:C	2:B:188:LYS:HD2	2.07	0.75
2:F:15:LEU:HD23	2:F:81:VAL:HG13	1.69	0.75
2:J:554:ARG:HG2	2:J:554:ARG:HH11	1.50	0.75
1:M:414:GLU:HB3	2:N:362:CYS:HB3	1.68	0.75
2:P:426:LYS:HA	2:P:571:LYS:HE2	1.69	0.75
1:C:64:THR:HG22	1:C:65:ALA:N	2.02	0.74
1:G:259:PHE:HZ	1:G:276:THR:HG21	1.52	0.74
2:J:40:SER:O	2:J:44:ILE:HG13	1.85	0.74
2:J:512:HIS:ND1	1:K:216:GLY:N	2.33	0.74
1:K:263:PHE:CE2	1:K:441:GLU:HG3	2.21	0.74
1:A:494:ARG:HD3	2:D:399:LEU:HD21	1.66	0.74
1:C:474:ILE:C	1:C:476:GLU:H	1.88	0.74
1:G:192:LEU:HG	1:G:196:MET:HG2	1.69	0.74
2:P:132:THR:HG23	2:P:133:LYS:HD2	1.67	0.74
1:C:403:LEU:HD22	1:C:419:VAL:CG2	2.17	0.74
1:C:480:HIS:H	1:C:480:HIS:CD2	2.04	0.74
2:H:267:LEU:HD22	2:H:300:PRO:HB3	1.69	0.74
1:I:475:ARG:HB3	1:I:475:ARG:HH11	1.52	0.74
2:B:186:LEU:HD21	2:B:238:ASN:H	1.53	0.74
2:B:426:LYS:HA	2:B:571:LYS:HE2	1.70	0.74
1:C:472:ASN:HD22	1:C:473:ASN:H	1.32	0.74
1:C:474:ILE:CD1	1:C:477:LEU:HD11	2.16	0.74
1:E:370:PHE:HB2	1:E:462:GLU:OE2	1.87	0.74
1:C:177:LYS:HG2	1:C:181:PHE:CE1	2.23	0.74
1:E:367:LEU:HG	1:E:368:ALA:N	2.01	0.74
2:F:470:LEU:CB	2:F:471:PRO:HD3	2.18	0.74
2:L:40:SER:HA	2:L:62:LEU:HD21	1.67	0.74
2:L:169:GLY:HA3	2:L:226:SER:HB2	1.69	0.74
2:N:187:ASN:C	2:N:188:LYS:HD2	2.06	0.74
1:O:327:HIS:HA	1:O:356:VAL:HG11	1.69	0.74
1:A:282:PRO:HD2	2:B:437:VAL:HG13	1.70	0.74
2:D:42:LYS:HD3	2:D:59:ASP:OD2	1.86	0.74
2:D:125:VAL:HG23	2:D:285:GLU:HB3	1.70	0.74
2:H:15:LEU:HD23	2:H:81:VAL:HG13	1.68	0.74
2:J:260:PHE:HE1	2:J:264:LYS:HD3	1.51	0.74
2:L:420:GLN:HG3	2:L:448:GLN:NE2	2.03	0.74
1:E:235:ARG:NH2	2:F:390:GLN:OE1	2.21	0.74
2:H:236:ILE:HD12	2:H:236:ILE:N	2.03	0.74
1:A:492:LEU:O	1:A:494:ARG:N	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:263:PHE:CE2	1:E:441:GLU:HG3	2.22	0.74
2:D:236:ILE:N	2:D:236:ILE:HD12	2.03	0.73
2:P:169:GLY:HA3	2:P:226:SER:HB2	1.70	0.73
2:P:236:ILE:HG22	2:P:237:ILE:HG13	1.69	0.73
2:D:187:ASN:C	2:D:188:LYS:HD2	2.09	0.73
1:G:272:ASP:O	1:G:274:HIS:N	2.21	0.73
2:L:321:ARG:HD3	2:P:321:ARG:HD3	1.68	0.73
1:O:402:GLN:O	1:O:421:SER:HA	1.88	0.73
2:P:236:ILE:HD12	2:P:236:ILE:N	2.02	0.73
2:D:517:ARG:HG3	2:D:521:LEU:CD2	2.19	0.73
2:L:67:VAL:HG13	2:L:68:PRO:HD2	1.70	0.73
2:P:341:ILE:HD11	2:P:348:GLU:HB2	1.68	0.73
2:B:125:VAL:HG23	2:B:285:GLU:HB3	1.70	0.73
1:E:283:ALA:O	1:E:286:LEU:HD21	1.89	0.73
2:F:508:PHE:CE1	2:F:562:GLY:HA2	2.23	0.73
2:H:508:PHE:CE1	2:H:562:GLY:HA2	2.24	0.73
2:N:513:GLY:HA3	1:O:217:VAL:O	1.88	0.73
1:A:258:ASN:HD22	1:A:330:SER:HB3	1.53	0.73
1:C:37:VAL:HG13	1:C:38:VAL:N	2.04	0.73
1:O:468:LYS:HE3	1:O:495:LEU:CB	2.18	0.73
2:B:169:GLY:HA3	2:B:226:SER:HB2	1.69	0.73
2:B:554:ARG:HG2	2:B:554:ARG:HH11	1.52	0.73
1:C:262:LEU:HD21	1:C:333:ALA:HB2	1.69	0.73
2:D:39:THR:HB	2:D:43:GLU:HG3	1.69	0.73
2:D:169:GLY:HA3	2:D:226:SER:HB2	1.69	0.73
1:E:367:LEU:HD13	2:F:415:PHE:CE2	2.24	0.73
2:J:480:ILE:HG12	2:J:496:HIS:CD2	2.24	0.73
2:L:125:VAL:HG23	2:L:285:GLU:HB3	1.69	0.73
2:L:260:PHE:HE1	2:L:264:LYS:HD3	1.54	0.73
1:A:414:GLU:HB3	2:B:362:CYS:HB3	1.69	0.73
2:F:71:ARG:HG3	2:F:355:ARG:NH1	2.04	0.73
2:F:234:PRO:CB	2:F:235:PRO:HD3	2.15	0.73
1:K:227:LEU:CD2	1:K:465:THR:HG21	2.19	0.73
1:C:471:ILE:CG2	1:C:472:ASN:H	2.01	0.73
2:F:420:GLN:HG3	2:F:448:GLN:NE2	2.03	0.73
1:G:271:ARG:HH11	1:G:271:ARG:HG3	1.53	0.73
1:G:414:GLU:HB3	2:H:362:CYS:HB3	1.69	0.73
2:N:528:GLU:HG3	2:N:534:VAL:HG13	1.69	0.73
2:P:420:GLN:HG3	2:P:448:GLN:NE2	2.04	0.73
1:C:77:GLU:HG2	1:C:106:LYS:CG	2.18	0.72
1:G:226:PRO:HB3	1:G:469:TYR:HE1	1.52	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:169:GLY:HA3	2:J:226:SER:HB2	1.70	0.72
2:J:186:LEU:HD22	2:J:238:ASN:O	1.89	0.72
2:J:236:ILE:HD12	2:J:236:ILE:N	2.04	0.72
1:O:281:ASP:CB	1:O:282:PRO:HD3	2.18	0.72
2:J:62:LEU:HD23	2:J:62:LEU:H	1.54	0.72
2:L:554:ARG:HG2	2:L:554:ARG:HH11	1.53	0.72
2:N:534:VAL:HG22	2:N:552:PHE:HB2	1.71	0.72
2:P:260:PHE:HE1	2:P:264:LYS:HD3	1.52	0.72
2:N:126:LEU:HD23	2:N:126:LEU:H	1.54	0.72
2:N:537:ALA:HB2	1:O:212:PHE:CD1	2.24	0.72
2:B:399:LEU:HD11	1:C:494:ARG:HB2	1.70	0.72
1:C:229:LYS:HD2	1:C:494:ARG:CZ	2.19	0.72
1:C:325:ARG:HH21	1:C:325:ARG:HG2	1.53	0.72
1:E:406:LYS:HB2	2:F:29:PHE:CZ	2.25	0.72
1:E:414:GLU:HB3	2:F:362:CYS:HB3	1.70	0.72
1:G:233:GLN:HE22	1:G:495:LEU:HD13	1.53	0.72
1:G:329:THR:OG1	3:G:509:PHE:HB3	1.88	0.72
2:J:82:ARG:HG2	2:J:335:TYR:OH	1.89	0.72
2:L:71:ARG:HG3	2:L:355:ARG:CZ	2.18	0.72
2:L:326:ASN:O	2:L:330:LEU:HD23	1.90	0.72
2:P:554:ARG:HH11	2:P:554:ARG:HG2	1.53	0.72
2:D:55:ALA:HB1	2:D:59:ASP:HB3	1.71	0.72
2:F:554:ARG:HG2	2:F:554:ARG:HH11	1.53	0.72
2:P:187:ASN:C	2:P:188:LYS:HD2	2.08	0.72
1:C:114:ARG:HG2	1:C:114:ARG:NH1	2.00	0.72
1:I:325:ARG:HG2	1:I:325:ARG:HH21	1.54	0.72
2:J:260:PHE:CE1	2:J:264:LYS:HD3	2.24	0.72
2:L:508:PHE:HE1	2:L:562:GLY:HA2	1.52	0.72
1:M:355:ARG:HA	1:M:370:PHE:O	1.89	0.72
2:B:15:LEU:HD23	2:B:81:VAL:HG13	1.70	0.72
1:C:246:MET:HE1	1:C:332:SER:HA	1.72	0.72
2:L:341:ILE:HD11	2:L:348:GLU:HB2	1.71	0.72
1:A:413:THR:HG21	3:A:509:PHE:HZ	1.52	0.72
2:B:236:ILE:HD12	2:B:236:ILE:N	2.04	0.72
2:D:271:VAL:HG22	2:D:284:VAL:HG22	1.71	0.72
2:J:236:ILE:HG22	2:J:237:ILE:HG13	1.70	0.72
1:K:471:ILE:H	1:K:471:ILE:HD12	1.53	0.72
2:B:186:LEU:HD22	2:B:238:ASN:O	1.90	0.72
1:C:263:PHE:CE2	1:C:441:GLU:HG3	2.25	0.72
2:D:508:PHE:CE1	2:D:562:GLY:HA2	2.25	0.72
1:E:279:LEU:HD11	1:E:322:ASN:HB2	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:420:GLN:HG3	2:J:448:GLN:NE2	2.04	0.72
2:J:508:PHE:HE1	2:J:562:GLY:HA2	1.54	0.72
2:N:122:VAL:HG21	2:N:299:PHE:CD2	2.24	0.72
2:B:480:ILE:HG12	2:B:496:HIS:CD2	2.25	0.72
1:I:299:THR:HG21	1:I:305:TYR:CE1	2.24	0.72
1:I:425:GLY:O	1:I:426:LEU:HB2	1.90	0.72
2:N:185:PRO:HG2	2:N:188:LYS:HB2	1.71	0.72
2:N:310:ARG:HH22	2:N:312:ASP:CB	2.03	0.72
1:M:197:ILE:HG23	2:P:566:PRO:HB3	1.72	0.71
2:B:71:ARG:HH22	2:B:366:GLU:CD	1.93	0.71
2:B:508:PHE:HE2	1:C:210:TYR:CD2	2.08	0.71
1:C:472:ASN:ND2	1:C:473:ASN:H	1.88	0.71
2:D:82:ARG:HG2	2:D:335:TYR:OH	1.89	0.71
2:F:169:GLY:HA3	2:F:226:SER:HB2	1.71	0.71
1:K:287:GLN:HG3	1:K:288:LEU:H	1.55	0.71
1:K:466:MET:SD	1:K:474:ILE:HG13	2.30	0.71
2:L:470:LEU:CB	2:L:471:PRO:HD3	2.20	0.71
1:M:263:PHE:CE2	1:M:441:GLU:HG3	2.26	0.71
2:N:169:GLY:HA3	2:N:226:SER:HB2	1.71	0.71
1:A:189:GLU:H	1:A:207:PHE:HB3	1.55	0.71
1:E:360:GLU:HG3	1:E:361:THR:H	1.55	0.71
2:F:387:ILE:HD12	1:G:241:MET:HG2	1.70	0.71
1:I:402:GLN:O	1:I:421:SER:HA	1.91	0.71
1:M:359:ASN:ND2	2:N:443:LYS:HE2	2.05	0.71
2:N:308:MET:SD	2:N:346:GLN:HG2	2.30	0.71
1:C:42:LYS:HA	1:C:42:LYS:HE2	1.73	0.71
2:J:267:LEU:HD22	2:J:300:PRO:HB3	1.71	0.71
2:B:271:VAL:HG22	2:B:284:VAL:HG22	1.72	0.71
1:C:299:THR:HG21	1:C:305:TYR:CE1	2.25	0.71
2:F:260:PHE:CE1	2:F:264:LYS:HD3	2.26	0.71
2:H:169:GLY:HA3	2:H:226:SER:HB2	1.70	0.71
2:N:267:LEU:HD22	2:N:300:PRO:HB3	1.73	0.71
2:B:415:PHE:O	2:B:451:ARG:HD3	1.90	0.71
2:H:186:LEU:HD22	2:H:238:ASN:O	1.91	0.71
2:H:326:ASN:O	2:H:330:LEU:HD23	1.89	0.71
2:L:185:PRO:HG2	2:L:188:LYS:HB2	1.72	0.71
2:N:186:LEU:HD22	2:N:238:ASN:O	1.91	0.71
2:N:387:ILE:HD12	1:O:241:MET:HG2	1.71	0.71
2:H:187:ASN:C	2:H:188:LYS:HD2	2.11	0.71
1:I:263:PHE:CD2	1:I:441:GLU:HG3	2.26	0.71
2:J:132:THR:HG23	2:J:133:LYS:HD2	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:474:ILE:HD12	1:O:474:ILE:H	1.53	0.71
2:D:426:LYS:HA	2:D:571:LYS:HE2	1.71	0.71
2:B:470:LEU:CB	2:B:471:PRO:HD3	2.20	0.71
2:D:177:ARG:HG2	2:D:178:PRO:HD2	1.73	0.71
2:L:186:LEU:HD21	2:L:238:ASN:H	1.54	0.71
2:L:186:LEU:HD22	2:L:238:ASN:O	1.91	0.71
1:O:208:LYS:HB2	1:O:209:PRO:HD2	1.73	0.71
1:O:414:GLU:HB3	2:P:362:CYS:HB3	1.73	0.71
2:P:480:ILE:HG12	2:P:496:HIS:CD2	2.26	0.71
1:C:495:LEU:O	1:C:499:PRO:HD2	1.90	0.70
1:G:365:THR:O	1:G:367:LEU:HD22	1.91	0.70
2:N:387:ILE:HG13	1:O:393:GLU:HG2	1.73	0.70
1:A:267:GLN:HB2	2:B:152:ARG:HD2	1.74	0.70
2:L:517:ARG:HG3	2:L:521:LEU:CD2	2.21	0.70
1:M:473:ASN:HB2	1:M:476:GLU:HB2	1.73	0.70
2:B:67:VAL:HG13	2:B:68:PRO:HD2	1.73	0.70
2:D:480:ILE:HG12	2:D:496:HIS:CD2	2.25	0.70
1:E:199:SER:O	1:E:201:SER:N	2.24	0.70
1:O:365:THR:HG21	1:O:474:ILE:HD12	1.72	0.70
2:P:126:LEU:H	2:P:126:LEU:HD23	1.56	0.70
1:A:414:GLU:HG3	1:A:437:VAL:HB	1.73	0.70
2:L:177:ARG:HG2	2:L:178:PRO:HD2	1.73	0.70
2:N:186:LEU:HD21	2:N:238:ASN:H	1.54	0.70
2:N:554:ARG:HG2	2:N:554:ARG:HH11	1.57	0.70
1:O:286:LEU:HD12	2:P:487:THR:O	1.90	0.70
2:B:234:PRO:CB	2:B:235:PRO:HD3	2.20	0.70
2:F:391:PHE:CD2	2:F:392:PRO:HD2	2.22	0.70
1:G:281:ASP:CB	1:G:282:PRO:HD3	2.22	0.70
1:G:299:THR:HG21	1:G:305:TYR:CE1	2.26	0.70
1:I:406:LYS:HD2	2:J:29:PHE:CE1	2.26	0.70
2:L:81:VAL:O	2:L:85:GLN:HB2	1.92	0.70
2:P:81:VAL:O	2:P:85:GLN:HB2	1.92	0.70
2:P:515:LEU:CD1	2:P:551:ILE:HD12	2.21	0.70
2:B:381:LEU:CD2	2:B:382:PRO:HD2	2.20	0.70
1:C:21:LEU:HD12	1:C:175:VAL:CG2	2.22	0.70
2:F:503:ASN:ND2	2:F:504:LYS:H	1.90	0.70
2:J:122:VAL:HG21	2:J:299:PHE:CD2	2.26	0.70
2:J:454:LEU:HD21	2:J:496:HIS:HB2	1.73	0.70
2:N:326:ASN:O	2:N:330:LEU:HD23	1.92	0.70
1:O:266:GLN:HA	1:O:271:ARG:NH1	2.05	0.70
1:O:414:GLU:HG3	1:O:437:VAL:HB	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:186:LEU:HD21	2:F:238:ASN:H	1.56	0.70
2:F:341:ILE:HD11	2:F:348:GLU:HB2	1.73	0.70
2:F:480:ILE:HG12	2:F:496:HIS:CD2	2.27	0.70
2:D:515:LEU:CD1	2:D:551:ILE:HD12	2.22	0.70
1:E:414:GLU:HG3	1:E:437:VAL:HB	1.74	0.70
2:F:566:PRO:HA	1:G:197:ILE:HD13	1.73	0.70
1:G:417:MET:HB3	2:H:374:TYR:HE1	1.57	0.70
1:G:477:LEU:HD23	1:G:486:MET:SD	2.31	0.70
2:D:67:VAL:HG13	2:D:68:PRO:HD2	1.72	0.70
2:D:326:ASN:O	2:D:330:LEU:HD23	1.91	0.70
2:F:576:MET:HB3	2:F:577:PRO:HD2	1.74	0.70
2:L:187:ASN:C	2:L:188:LYS:HD2	2.11	0.70
2:N:381:LEU:CD2	2:N:382:PRO:HD2	2.17	0.70
2:B:517:ARG:HG3	2:B:521:LEU:CD2	2.22	0.69
2:F:185:PRO:HG2	2:F:188:LYS:HB2	1.72	0.69
1:I:477:LEU:HD12	1:I:478:VAL:HG23	1.73	0.69
2:L:15:LEU:HD23	2:L:81:VAL:HG13	1.72	0.69
1:M:199:SER:C	1:M:201:SER:H	1.95	0.69
1:M:224:LEU:HD22	2:N:401:ARG:HH12	1.56	0.69
1:E:466:MET:HB2	1:E:467:ILE:HD12	1.74	0.69
1:I:218:LEU:HB2	1:I:219:PRO:HD2	1.74	0.69
2:B:525:PRO:O	2:B:532:GLY:HA3	1.93	0.69
2:D:267:LEU:HD22	2:D:300:PRO:HB3	1.73	0.69
2:J:101:PRO:HG2	2:J:105:ILE:HD13	1.74	0.69
2:J:381:LEU:CD2	2:J:382:PRO:HD2	2.16	0.69
1:K:403:LEU:HD22	1:K:419:VAL:HG12	1.74	0.69
2:L:269:ILE:O	2:L:273:MET:HB2	1.92	0.69
2:L:508:PHE:CE1	2:L:562:GLY:HA2	2.27	0.69
2:N:211:LEU:CG	2:N:212:HIS:H	2.05	0.69
2:N:234:PRO:CB	2:N:235:PRO:HD3	2.19	0.69
1:O:288:LEU:HD22	1:O:288:LEU:H	1.57	0.69
1:O:465:THR:O	1:O:469:TYR:HB2	1.92	0.69
1:G:263:PHE:CE2	1:G:441:GLU:HG3	2.28	0.69
1:G:271:ARG:O	1:G:271:ARG:HD3	1.92	0.69
2:J:470:LEU:CB	2:J:471:PRO:HD3	2.21	0.69
2:P:511:ILE:HG22	2:P:561:LEU:HD21	1.74	0.69
1:A:226:PRO:HG2	1:A:486:MET:HE1	1.73	0.69
1:C:63:LEU:HD11	1:C:140:LEU:HG	1.73	0.69
2:H:525:PRO:O	2:H:532:GLY:HA3	1.93	0.69
1:K:281:ASP:HB3	1:K:282:PRO:CD	2.21	0.69
2:B:42:LYS:H	2:B:58:SER:HB3	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:408:ALA:HB2	1:E:418:GLU:HG3	1.73	0.69
2:F:517:ARG:HG3	2:F:521:LEU:CD2	2.22	0.69
1:C:27:ALA:HB1	1:C:33:GLU:O	1.92	0.69
1:K:233:GLN:NE2	1:K:495:LEU:HG	2.07	0.69
1:O:288:LEU:HD23	1:O:293:VAL:HG21	1.74	0.69
1:O:365:THR:HG23	1:O:475:ARG:HB2	1.75	0.69
2:P:267:LEU:HD22	2:P:300:PRO:HB3	1.72	0.69
1:A:373:ILE:HG12	1:A:459:LEU:HD12	1.75	0.69
1:A:391:LEU:HD13	1:A:419:VAL:HG11	1.75	0.69
1:A:473:ASN:O	1:A:476:GLU:HB2	1.92	0.69
2:D:186:LEU:HD22	2:D:238:ASN:O	1.92	0.69
2:D:260:PHE:HE1	2:D:264:LYS:HD3	1.55	0.69
2:D:569:ILE:HD12	2:D:574:LEU:HB2	1.75	0.69
2:F:42:LYS:N	2:F:58:SER:HB2	2.07	0.69
2:F:70:ASN:HD22	2:F:71:ARG:NH1	1.91	0.69
2:H:67:VAL:HG13	2:H:68:PRO:HD2	1.73	0.69
2:H:70:ASN:HD22	2:H:71:ARG:NH1	1.90	0.69
2:J:564:LEU:HD12	2:J:578:CYS:HB3	1.74	0.69
1:K:211:ASN:HB2	1:K:213:LEU:CD1	2.22	0.69
1:K:477:LEU:HD23	1:K:486:MET:SD	2.33	0.69
2:L:236:ILE:N	2:L:236:ILE:HD12	2.07	0.69
1:O:361:THR:HB	1:O:366:HIS:HB3	1.75	0.69
2:P:186:LEU:HD21	2:P:238:ASN:H	1.58	0.69
1:E:269:PRO:HB3	2:F:149:ASN:ND2	2.08	0.69
1:E:281:ASP:CB	2:F:438:HIS:H	2.05	0.69
2:F:81:VAL:O	2:F:85:GLN:HB2	1.93	0.69
1:G:461:LEU:O	1:G:465:THR:HG23	1.92	0.69
1:I:281:ASP:HB3	1:I:282:PRO:CD	2.23	0.69
2:J:517:ARG:HG3	2:J:521:LEU:CD2	2.23	0.69
2:L:271:VAL:HG22	2:L:284:VAL:HG22	1.74	0.69
1:C:115:VAL:HG12	1:C:116:ASP:N	2.05	0.69
2:F:454:LEU:HD21	2:F:496:HIS:HB2	1.74	0.69
2:N:71:ARG:HG3	2:N:355:ARG:NH1	2.08	0.69
2:P:82:ARG:HG2	2:P:335:TYR:OH	1.93	0.69
2:F:269:ILE:O	2:F:273:MET:HB2	1.93	0.68
2:H:269:ILE:O	2:H:273:MET:HB2	1.92	0.68
2:J:508:PHE:CE1	2:J:562:GLY:HA2	2.28	0.68
1:M:286:LEU:HB2	1:M:320:ARG:HH22	1.56	0.68
1:M:286:LEU:HD12	1:M:320:ARG:HH12	1.58	0.68
2:N:508:PHE:CE1	2:N:562:GLY:HA2	2.28	0.68
2:N:517:ARG:HG3	2:N:521:LEU:CD2	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:283:ALA:HA	1:E:322:ASN:HB2	1.73	0.68
2:F:534:VAL:CG2	2:F:552:PHE:HB2	2.23	0.68
2:H:81:VAL:O	2:H:85:GLN:HB2	1.92	0.68
2:H:177:ARG:HG2	2:H:178:PRO:HD2	1.76	0.68
2:L:267:LEU:HD22	2:L:300:PRO:HB3	1.74	0.68
2:L:507:GLY:O	2:L:510:ILE:HG22	1.94	0.68
2:L:565:HIS:ND1	2:L:566:PRO:HD2	2.07	0.68
2:N:260:PHE:HE1	2:N:264:LYS:HD3	1.56	0.68
2:N:308:MET:SD	2:N:346:GLN:CB	2.80	0.68
1:O:263:PHE:CD2	1:O:441:GLU:HG3	2.28	0.68
2:D:470:LEU:CB	2:D:471:PRO:HD3	2.22	0.68
2:H:260:PHE:HE1	2:H:264:LYS:HD3	1.56	0.68
1:M:190:THR:HG21	1:M:208:LYS:NZ	2.08	0.68
2:N:70:ASN:HD22	2:N:71:ARG:NH1	1.91	0.68
2:N:537:ALA:HB2	1:O:212:PHE:HD1	1.56	0.68
1:O:479:GLY:HA3	2:P:415:PHE:HE1	1.58	0.68
2:B:71:ARG:CG	2:B:355:ARG:NH1	2.55	0.68
2:B:326:ASN:O	2:B:330:LEU:HD23	1.92	0.68
2:J:308:MET:SD	2:J:346:GLN:HB3	2.34	0.68
1:O:259:PHE:HB3	1:O:271:ARG:HH21	1.57	0.68
2:P:101:PRO:HG2	2:P:105:ILE:HD13	1.73	0.68
2:P:470:LEU:CB	2:P:471:PRO:HD3	2.22	0.68
2:B:81:VAL:O	2:B:85:GLN:HB2	1.94	0.68
1:C:414:GLU:HG3	1:C:437:VAL:HB	1.75	0.68
2:F:73:ASP:HA	2:F:273:MET:HE1	1.75	0.68
2:P:33:LEU:HD22	2:P:67:VAL:HG22	1.74	0.68
1:E:325:ARG:HG2	1:E:325:ARG:HH21	1.59	0.68
2:F:470:LEU:HB3	2:F:471:PRO:HD3	1.73	0.68
2:H:341:ILE:HD11	2:H:348:GLU:HB2	1.74	0.68
2:J:81:VAL:O	2:J:85:GLN:HB2	1.94	0.68
2:J:186:LEU:HD21	2:J:238:ASN:H	1.59	0.68
2:L:341:ILE:HG22	2:L:341:ILE:O	1.93	0.68
2:L:470:LEU:HB3	2:L:471:PRO:HD3	1.74	0.68
1:O:477:LEU:HA	1:O:482:VAL:CG2	2.22	0.68
2:D:101:PRO:HG2	2:D:105:ILE:HD13	1.76	0.68
1:E:367:LEU:HD22	2:F:415:PHE:HE2	1.58	0.68
2:N:227:ASN:HB2	2:N:229:VAL:HG23	1.76	0.68
2:N:528:GLU:H	2:N:534:VAL:CG1	2.07	0.68
1:A:325:ARG:HG2	1:A:325:ARG:HH21	1.57	0.68
2:B:269:ILE:O	2:B:273:MET:HB2	1.94	0.68
1:C:21:LEU:HD12	1:C:175:VAL:HG22	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:197:LEU:O	2:D:200:ILE:HG13	1.94	0.68
2:D:470:LEU:HB3	2:D:471:PRO:HD3	1.74	0.68
1:E:265:PRO:HA	1:E:300:HIS:HE1	1.56	0.68
2:J:188:LYS:HD2	2:J:188:LYS:N	2.08	0.68
2:P:271:VAL:HG22	2:P:284:VAL:HG22	1.76	0.68
1:C:164:LEU:O	1:C:165:LEU:HB3	1.92	0.68
2:F:391:PHE:HD2	2:F:392:PRO:CD	2.06	0.68
2:H:33:LEU:HD22	2:H:67:VAL:HG22	1.75	0.68
1:I:449:PRO:HG2	1:I:452:VAL:CG2	2.24	0.68
2:L:41:GLU:HB2	2:L:58:SER:OG	1.93	0.68
1:M:222:GLY:HA3	2:N:405:ALA:O	1.94	0.68
1:A:263:PHE:CE2	1:A:441:GLU:HG3	2.29	0.68
2:D:565:HIS:O	2:D:568:VAL:HG22	1.94	0.68
1:E:256:PHE:HA	1:E:260:ASP:HB2	1.76	0.68
2:F:166:THR:HG22	2:L:464:ALA:O	1.94	0.68
2:F:186:LEU:HD22	2:F:238:ASN:O	1.93	0.68
1:M:262:LEU:HD21	1:M:333:ALA:HB2	1.76	0.68
1:M:362:LEU:HD21	2:N:447:PHE:HZ	1.57	0.68
2:P:71:ARG:HH22	2:P:366:GLU:CD	1.98	0.68
2:P:517:ARG:HG3	2:P:521:LEU:CD2	2.24	0.68
1:C:80:VAL:HG23	1:C:94:LEU:HD11	1.74	0.67
2:H:132:THR:HG23	2:H:133:LYS:HD2	1.75	0.67
2:H:211:LEU:CG	2:H:212:HIS:H	2.08	0.67
1:M:449:PRO:HG2	1:M:452:VAL:CG2	2.23	0.67
2:N:507:GLY:O	2:N:510:ILE:HG22	1.94	0.67
1:C:56:ARG:HB2	1:C:172:THR:HG23	1.75	0.67
2:D:81:VAL:O	2:D:85:GLN:HB2	1.94	0.67
1:G:279:LEU:HD11	1:G:322:ASN:HB3	1.75	0.67
2:H:455:LEU:HB3	2:H:456:PRO:HD3	1.76	0.67
2:H:470:LEU:CB	2:H:471:PRO:HD3	2.24	0.67
1:I:466:MET:SD	1:I:474:ILE:HG12	2.34	0.67
1:K:282:PRO:CD	2:L:437:VAL:HG13	2.24	0.67
1:K:414:GLU:HG3	1:K:437:VAL:HB	1.76	0.67
2:L:38:ILE:HG22	2:L:61:VAL:HG11	1.76	0.67
2:N:81:VAL:O	2:N:85:GLN:HB2	1.94	0.67
2:P:525:PRO:O	2:P:532:GLY:HA3	1.94	0.67
2:B:70:ASN:HD22	2:B:71:ARG:NH1	1.92	0.67
2:B:267:LEU:HD22	2:B:300:PRO:HB3	1.77	0.67
2:B:454:LEU:HD21	2:B:496:HIS:HB2	1.77	0.67
1:E:258:ASN:HD22	1:E:330:SER:HB3	1.57	0.67
1:M:258:ASN:ND2	1:M:327:HIS:CE1	2.63	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:263:PHE:CE1	1:M:441:GLU:HB2	2.30	0.67
1:O:484:LEU:HG	2:P:465:ASN:ND2	2.10	0.67
1:A:214:ALA:O	1:A:216:GLY:N	2.26	0.67
1:C:38:VAL:HG13	1:C:173:TYR:HE2	1.58	0.67
2:D:8:ARG:CZ	2:D:61:VAL:HG11	2.24	0.67
2:D:71:ARG:HH22	2:D:366:GLU:CD	1.98	0.67
2:D:115:ALA:HA	2:D:119:PRO:HA	1.77	0.67
1:E:467:ILE:C	1:E:469:TYR:H	1.96	0.67
1:E:484:LEU:HG	2:F:465:ASN:ND2	2.09	0.67
2:J:326:ASN:O	2:J:330:LEU:HD23	1.93	0.67
2:L:290:VAL:HG22	2:L:296:SER:OG	1.94	0.67
1:M:477:LEU:HD12	1:M:478:VAL:HG23	1.76	0.67
2:N:415:PHE:O	2:N:451:ARG:HD3	1.94	0.67
1:O:373:ILE:CD1	1:O:459:LEU:HD11	2.25	0.67
2:B:244:ILE:H	2:B:244:ILE:HD12	1.57	0.67
2:D:126:LEU:HD23	2:D:126:LEU:H	1.59	0.67
2:D:232:SER:HB2	2:D:238:ASN:HA	1.77	0.67
2:H:260:PHE:CE1	2:H:264:LYS:HD3	2.30	0.67
1:I:494:ARG:O	1:I:498:GLU:HB2	1.93	0.67
2:L:305:ARG:NH1	2:L:358:ILE:O	2.27	0.67
1:M:199:SER:O	1:M:201:SER:N	2.28	0.67
2:P:115:ALA:HA	2:P:119:PRO:HA	1.77	0.67
1:A:212:PHE:CE1	2:D:549:ALA:HB2	2.28	0.67
2:D:211:LEU:CG	2:D:212:HIS:H	2.07	0.67
2:D:503:ASN:ND2	2:D:504:LYS:H	1.92	0.67
1:E:362:LEU:HD23	1:E:362:LEU:O	1.93	0.67
2:F:101:PRO:HG2	2:F:105:ILE:HD13	1.77	0.67
2:F:267:LEU:HD22	2:F:300:PRO:HB3	1.75	0.67
2:H:420:GLN:HE21	2:H:431:ILE:HG12	1.60	0.67
1:I:414:GLU:HG3	1:I:437:VAL:HB	1.77	0.67
2:L:260:PHE:CE1	2:L:264:LYS:HD3	2.28	0.67
2:P:260:PHE:CE1	2:P:264:LYS:HD3	2.29	0.67
2:J:470:LEU:HB3	2:J:471:PRO:HD3	1.77	0.67
1:C:153:GLU:O	1:C:157:SER:HB2	1.94	0.67
2:J:569:ILE:HD12	2:J:574:LEU:HB2	1.76	0.67
2:F:132:THR:HG23	2:F:133:LYS:HD2	1.76	0.67
1:G:362:LEU:HD22	1:G:475:ARG:NH2	2.09	0.67
2:J:234:PRO:CB	2:J:235:PRO:HD3	2.23	0.67
2:J:381:LEU:HD23	2:J:382:PRO:CD	2.16	0.67
1:O:192:LEU:HD12	1:O:207:PHE:CZ	2.29	0.67
2:P:186:LEU:HD22	2:P:238:ASN:O	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:191:GLU:HG2	2:H:547:ARG:HE	1.60	0.67
1:E:477:LEU:HD12	1:E:478:VAL:HG23	1.77	0.67
2:F:507:GLY:O	2:F:510:ILE:HG22	1.94	0.67
2:H:186:LEU:HD21	2:H:238:ASN:H	1.59	0.67
2:H:517:ARG:HG3	2:H:521:LEU:CD2	2.25	0.67
2:J:515:LEU:CD1	2:J:551:ILE:HD12	2.25	0.67
1:M:311:LYS:HD3	2:N:261:THR:HG21	1.77	0.67
1:M:423:HIS:HD2	1:M:426:LEU:HD23	1.58	0.67
1:O:188:GLN:CB	1:O:206:PRO:HG2	2.19	0.67
1:O:479:GLY:HA3	2:P:415:PHE:CE1	2.30	0.67
1:C:79:ARG:HG2	1:C:79:ARG:HH11	1.59	0.66
2:F:415:PHE:O	2:F:451:ARG:HD3	1.95	0.66
1:G:192:LEU:HD23	1:G:193:SER:H	1.60	0.66
1:G:230:VAL:HG11	1:G:465:THR:HG22	1.77	0.66
1:I:256:PHE:HA	1:I:260:ASP:OD1	1.95	0.66
1:G:363:ASP:CG	1:G:364:ALA:H	1.99	0.66
2:H:515:LEU:CD1	2:H:551:ILE:HD12	2.25	0.66
2:H:576:MET:HB3	2:H:577:PRO:HD2	1.77	0.66
1:M:484:LEU:HG	2:N:465:ASN:ND2	2.10	0.66
2:N:115:ALA:HA	2:N:119:PRO:HA	1.75	0.66
2:P:67:VAL:HG13	2:P:68:PRO:HD2	1.77	0.66
2:D:232:SER:CB	2:D:238:ASN:HA	2.25	0.66
1:G:480:HIS:H	1:G:480:HIS:CD2	2.13	0.66
2:J:126:LEU:HD23	2:J:126:LEU:H	1.60	0.66
1:M:263:PHE:CD2	1:M:441:GLU:HG3	2.30	0.66
1:M:266:GLN:OE1	1:M:314:TRP:HA	1.94	0.66
1:A:479:GLY:HA3	2:B:415:PHE:CE1	2.31	0.66
1:A:492:LEU:C	1:A:494:ARG:H	1.98	0.66
1:C:471:ILE:CG2	1:C:472:ASN:N	2.59	0.66
2:D:186:LEU:HD21	2:D:238:ASN:H	1.60	0.66
2:D:260:PHE:CE1	2:D:264:LYS:HD3	2.29	0.66
2:F:182:LYS:HD3	1:K:472:ASN:CG	2.16	0.66
2:L:232:SER:HB2	2:L:238:ASN:HA	1.78	0.66
2:N:576:MET:HB3	2:N:577:PRO:HD2	1.78	0.66
2:D:177:ARG:CG	2:D:178:PRO:HD2	2.26	0.66
2:F:207:LEU:O	2:F:211:LEU:HD22	1.96	0.66
1:E:362:LEU:CD2	1:E:475:ARG:HH22	2.09	0.66
1:E:440:PRO:HG3	2:F:360:HIS:NE2	2.11	0.66
1:G:281:ASP:O	1:G:283:ALA:N	2.28	0.66
2:J:227:ASN:HB2	2:J:229:VAL:HG23	1.76	0.66
1:K:211:ASN:HD22	1:K:211:ASN:N	1.93	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:564:LEU:HD12	2:N:578:CYS:HB3	1.78	0.66
1:O:471:ILE:CG2	1:O:472:ASN:N	2.58	0.66
2:P:62:LEU:N	2:P:62:LEU:HD23	2.11	0.66
2:B:122:VAL:HG21	2:B:299:PHE:CD2	2.31	0.66
1:E:402:GLN:O	1:E:421:SER:HA	1.95	0.66
2:N:186:LEU:HD23	2:N:237:ILE:HG22	1.77	0.66
1:O:325:ARG:HG2	1:O:325:ARG:HH21	1.60	0.66
2:P:420:GLN:HE21	2:P:431:ILE:HG12	1.60	0.66
1:C:1:MET:HA	1:C:5:GLN:HB2	1.77	0.66
2:F:470:LEU:CB	2:F:471:PRO:CD	2.73	0.66
2:H:271:VAL:HG22	2:H:284:VAL:HG22	1.76	0.66
2:J:415:PHE:O	2:J:451:ARG:HD3	1.95	0.66
1:M:325:ARG:HG2	1:M:325:ARG:HH21	1.61	0.66
2:N:40:SER:O	2:N:44:ILE:HG13	1.96	0.66
2:B:444:THR:HG22	2:B:447:PHE:CD1	2.31	0.66
1:G:414:GLU:HG3	1:G:437:VAL:HB	1.78	0.66
1:A:205:ARG:N	1:A:206:PRO:CD	2.58	0.66
2:B:211:LEU:CG	2:B:212:HIS:H	2.08	0.66
2:B:554:ARG:NH2	1:C:502:PRO:HG3	2.11	0.66
1:C:259:PHE:CE1	1:C:271:ARG:HB3	2.30	0.66
2:D:269:ILE:O	2:D:273:MET:HB2	1.95	0.66
1:E:267:GLN:CB	2:F:152:ARG:HD2	2.25	0.66
2:J:115:ALA:HA	2:J:119:PRO:HA	1.76	0.66
1:K:404:ARG:HD3	1:K:429:TRP:CZ2	2.31	0.66
1:M:406:LYS:HB2	2:N:29:PHE:CE2	2.31	0.66
2:H:232:SER:HB2	2:H:238:ASN:HA	1.78	0.65
2:H:507:GLY:O	2:H:510:ILE:HG22	1.95	0.65
2:L:234:PRO:CB	2:L:235:PRO:HD3	2.23	0.65
1:M:212:PHE:CE1	2:P:537:ALA:HB2	2.30	0.65
2:B:565:HIS:O	2:B:568:VAL:HG22	1.95	0.65
1:M:267:GLN:HG3	2:N:262:LYS:HE3	1.78	0.65
1:M:327:HIS:HA	1:M:356:VAL:HG11	1.77	0.65
1:O:423:HIS:HB2	1:O:426:LEU:HD12	1.76	0.65
1:A:473:ASN:HD21	1:A:475:ARG:HB3	1.61	0.65
1:E:414:GLU:HB2	1:E:415:PRO:CD	2.24	0.65
2:H:227:ASN:HB2	2:H:229:VAL:HG23	1.78	0.65
2:L:115:ALA:HA	2:L:119:PRO:HA	1.78	0.65
2:N:271:VAL:HG22	2:N:284:VAL:HG22	1.79	0.65
1:O:474:ILE:O	1:O:478:VAL:HG23	1.96	0.65
2:P:197:LEU:O	2:P:200:ILE:HG13	1.95	0.65
1:A:495:LEU:HD12	1:A:498:GLU:OE2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:115:ALA:HA	2:B:119:PRO:HA	1.77	0.65
2:B:188:LYS:HD2	2:B:188:LYS:N	2.12	0.65
2:B:420:GLN:H	2:B:448:GLN:NE2	1.94	0.65
1:C:208:LYS:HE3	1:C:209:PRO:CD	2.27	0.65
1:E:494:ARG:CB	1:E:494:ARG:HH11	2.09	0.65
2:J:15:LEU:HA	2:J:85:GLN:HE22	1.62	0.65
2:J:271:VAL:HG22	2:J:284:VAL:HG22	1.79	0.65
2:L:107:LYS:HE2	2:L:109:ILE:HD11	1.79	0.65
2:P:38:ILE:HG22	2:P:61:VAL:HG21	1.77	0.65
2:P:576:MET:HB3	2:P:577:PRO:HD2	1.77	0.65
2:F:115:ALA:HA	2:F:119:PRO:HA	1.79	0.65
2:F:188:LYS:HD2	2:F:188:LYS:N	2.12	0.65
2:H:115:ALA:HA	2:H:119:PRO:HA	1.77	0.65
2:J:269:ILE:O	2:J:273:MET:HB2	1.97	0.65
2:N:391:PHE:CD2	2:N:392:PRO:HD2	2.26	0.65
2:N:470:LEU:CB	2:N:471:PRO:HD3	2.25	0.65
2:P:6:VAL:HG21	2:P:11:LEU:HD12	1.78	0.65
2:P:269:ILE:O	2:P:273:MET:HB2	1.96	0.65
2:P:326:ASN:O	2:P:330:LEU:HD23	1.95	0.65
2:D:420:GLN:HG3	2:D:448:GLN:NE2	2.11	0.65
2:J:503:ASN:ND2	2:J:504:LYS:H	1.95	0.65
1:M:479:GLY:HA3	2:N:415:PHE:CE1	2.31	0.65
2:N:480:ILE:HG12	2:N:496:HIS:CD2	2.31	0.65
2:P:341:ILE:O	2:P:341:ILE:HG22	1.97	0.65
2:B:569:ILE:HD12	2:B:574:LEU:HB2	1.79	0.65
2:H:71:ARG:HG3	2:H:355:ARG:CZ	2.27	0.65
2:J:444:THR:HG22	2:J:447:PHE:CD1	2.31	0.65
2:L:101:PRO:HG2	2:L:105:ILE:HD13	1.77	0.65
2:L:232:SER:CB	2:L:238:ASN:HA	2.27	0.65
2:L:470:LEU:CB	2:L:471:PRO:CD	2.75	0.65
1:M:423:HIS:CD2	1:M:426:LEU:HD23	2.31	0.65
1:O:466:MET:SD	1:O:474:ILE:HG13	2.37	0.65
2:P:232:SER:CB	2:P:238:ASN:HA	2.26	0.65
2:B:470:LEU:HB3	2:B:471:PRO:HD3	1.79	0.65
1:G:362:LEU:CD2	1:G:475:ARG:HH22	2.09	0.65
2:H:62:LEU:HD23	2:H:62:LEU:N	2.11	0.65
2:H:565:HIS:O	2:H:568:VAL:HG22	1.96	0.65
2:L:62:LEU:HD23	2:L:62:LEU:N	2.10	0.65
1:M:193:SER:HB3	1:M:195:GLU:OE1	1.97	0.65
2:N:420:GLN:H	2:N:448:GLN:NE2	1.95	0.65
2:P:227:ASN:HB2	2:P:229:VAL:HG23	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:224:LEU:HD22	2:B:401:ARG:NH1	2.11	0.65
2:B:321:ARG:HD3	2:F:321:ARG:HD3	1.78	0.65
2:B:420:GLN:HE21	2:B:431:ILE:HG12	1.60	0.65
2:D:420:GLN:H	2:D:448:GLN:NE2	1.95	0.65
2:H:101:PRO:HG2	2:H:105:ILE:HD13	1.78	0.65
1:I:289:PRO:O	1:I:291:ASP:N	2.30	0.65
1:M:279:LEU:HD23	1:M:283:ALA:CA	2.27	0.65
1:O:193:SER:HB2	1:O:194:PRO:HD2	1.76	0.65
2:D:470:LEU:CB	2:D:471:PRO:CD	2.74	0.65
2:F:8:ARG:CZ	2:F:61:VAL:HG11	2.27	0.65
2:H:15:LEU:HA	2:H:85:GLN:HE22	1.61	0.65
2:H:391:PHE:HD2	2:H:392:PRO:HD2	1.61	0.65
1:I:267:GLN:HB2	2:J:152:ARG:HD2	1.77	0.65
1:I:374:GLU:OE1	3:I:509:PHE:HB2	1.97	0.65
2:L:48:GLU:HG3	2:L:49:GLN:H	1.62	0.65
1:O:193:SER:C	1:O:197:ILE:HG12	2.17	0.65
2:B:515:LEU:CD1	2:B:551:ILE:HD12	2.28	0.64
1:C:266:GLN:HB2	1:C:312:TYR:HE2	1.61	0.64
2:F:420:GLN:H	2:F:448:GLN:NE2	1.94	0.64
1:G:282:PRO:HD2	2:H:437:VAL:HG13	1.77	0.64
1:K:325:ARG:HH21	1:K:325:ARG:HG2	1.61	0.64
1:M:284:GLU:CG	1:M:320:ARG:HE	2.10	0.64
2:N:188:LYS:HD2	2:N:188:LYS:N	2.12	0.64
2:N:232:SER:CB	2:N:238:ASN:HA	2.26	0.64
2:N:260:PHE:CE1	2:N:264:LYS:HD3	2.32	0.64
2:N:515:LEU:CD1	2:N:551:ILE:HD12	2.27	0.64
1:C:472:ASN:HD22	1:C:472:ASN:N	1.88	0.64
1:E:288:LEU:HD12	1:E:293:VAL:HG21	1.79	0.64
1:G:246:MET:HE1	1:G:332:SER:HA	1.79	0.64
2:L:188:LYS:HE2	2:L:201:TYR:OH	1.98	0.64
2:N:71:ARG:CG	2:N:355:ARG:NH1	2.60	0.64
2:N:549:ALA:HB2	1:O:212:PHE:CE1	2.32	0.64
2:P:415:PHE:O	2:P:451:ARG:HD3	1.97	0.64
1:C:75:SER:HB2	1:C:77:GLU:OE2	1.97	0.64
2:D:420:GLN:HE21	2:D:431:ILE:HG12	1.61	0.64
1:E:217:VAL:HB	2:H:510:ILE:HA	1.77	0.64
2:F:227:ASN:HB2	2:F:229:VAL:HG23	1.79	0.64
1:G:233:GLN:NE2	1:G:495:LEU:HD13	2.12	0.64
2:L:177:ARG:CG	2:L:178:PRO:HD2	2.27	0.64
2:N:533:TYR:HA	2:N:552:PHE:O	1.98	0.64
2:B:15:LEU:HA	2:B:85:GLN:HE22	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:420:PHE:HD2	1:C:431:GLU:HA	1.58	0.64
2:F:334:MET:HG2	2:F:367:ASP:HB3	1.78	0.64
2:F:514:LEU:HD23	2:F:581:LEU:HD23	1.77	0.64
1:G:266:GLN:HE21	1:G:318:GLU:HG2	1.62	0.64
1:I:449:PRO:HG2	1:I:452:VAL:HG23	1.79	0.64
2:J:232:SER:CB	2:J:238:ASN:HA	2.28	0.64
2:L:197:LEU:O	2:L:200:ILE:HG13	1.97	0.64
2:N:436:ALA:HB1	2:N:449:VAL:HG11	1.79	0.64
1:C:3:ASP:OD2	1:C:40:ALA:HA	1.97	0.64
2:F:71:ARG:CG	2:F:355:ARG:NH1	2.60	0.64
2:H:71:ARG:CG	2:H:355:ARG:NH1	2.58	0.64
2:H:101:PRO:HB3	2:H:285:GLU:CD	2.17	0.64
2:J:245:THR:HG22	2:J:246:VAL:N	2.11	0.64
1:O:495:LEU:HD12	1:O:496:ASP:H	1.62	0.64
2:P:15:LEU:HA	2:P:85:GLN:HE22	1.63	0.64
2:P:507:GLY:O	2:P:510:ILE:HG22	1.97	0.64
2:D:122:VAL:HG21	2:D:299:PHE:CD2	2.32	0.64
1:G:423:HIS:CB	1:G:427:LYS:HA	2.27	0.64
2:N:67:VAL:HG13	2:N:68:PRO:HD2	1.78	0.64
1:A:494:ARG:HH21	2:D:390:GLN:HE22	1.46	0.64
1:C:498:GLU:CB	1:C:499:PRO:HD3	2.26	0.64
2:D:227:ASN:HB2	2:D:229:VAL:HG23	1.79	0.64
1:E:279:LEU:HD11	1:E:322:ASN:CB	2.28	0.64
1:G:325:ARG:HG2	1:G:325:ARG:HH21	1.63	0.64
2:J:341:ILE:O	2:J:341:ILE:HG22	1.96	0.64
1:M:286:LEU:HD12	1:M:320:ARG:NH1	2.13	0.64
2:N:178:PRO:O	2:N:194:ALA:HB3	1.98	0.64
2:N:197:LEU:O	2:N:200:ILE:HG13	1.98	0.64
1:A:212:PHE:CD2	2:D:537:ALA:HB2	2.33	0.64
1:E:417:MET:HB3	2:F:374:TYR:HE1	1.63	0.64
2:F:436:ALA:HB1	2:F:449:VAL:HG11	1.80	0.64
2:F:454:LEU:CD2	2:F:496:HIS:HB2	2.28	0.64
2:H:197:LEU:O	2:H:200:ILE:HG13	1.98	0.64
2:J:162:HIS:CD2	2:J:231:LEU:HD12	2.33	0.64
1:K:281:ASP:C	1:K:283:ALA:H	2.01	0.64
1:K:461:LEU:O	1:K:465:THR:CG2	2.46	0.64
1:O:477:LEU:HD23	1:O:486:MET:SD	2.38	0.64
2:P:470:LEU:HB3	2:P:471:PRO:HD3	1.79	0.64
1:A:417:MET:HB3	2:B:374:TYR:HE1	1.63	0.64
2:B:90:ARG:HB3	2:B:90:ARG:NH1	2.13	0.64
2:D:391:PHE:HD2	2:D:392:PRO:HD2	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:182:LYS:HG2	1:K:472:ASN:HB2	1.80	0.64
2:F:245:THR:HG22	2:F:246:VAL:N	2.12	0.64
2:F:512:HIS:CE1	1:G:216:GLY:N	2.65	0.64
1:G:367:LEU:HD22	1:G:367:LEU:H	1.62	0.64
2:H:566:PRO:O	2:H:570:THR:HG23	1.98	0.64
1:I:194:PRO:O	1:I:197:ILE:HG22	1.98	0.64
2:N:33:LEU:HD22	2:N:67:VAL:HG22	1.80	0.64
2:N:454:LEU:HD21	2:N:496:HIS:HB2	1.79	0.64
2:P:232:SER:HB2	2:P:238:ASN:HA	1.80	0.64
2:B:470:LEU:CB	2:B:471:PRO:CD	2.76	0.64
1:G:440:PRO:HG3	2:H:360:HIS:NE2	2.13	0.64
2:H:232:SER:CB	2:H:238:ASN:HA	2.28	0.64
2:H:503:ASN:ND2	2:H:504:LYS:H	1.96	0.64
2:L:420:GLN:H	2:L:448:GLN:NE2	1.95	0.64
2:L:569:ILE:HD12	2:L:574:LEU:HB2	1.79	0.64
2:N:308:MET:CG	2:N:346:GLN:HB3	2.28	0.64
2:B:455:LEU:HB3	2:B:456:PRO:HD3	1.81	0.63
2:B:507:GLY:O	2:B:510:ILE:HG22	1.98	0.63
1:C:20:GLY:HA2	1:C:174:TRP:HE1	1.63	0.63
1:C:140:LEU:HD11	1:C:159:LEU:HD21	1.78	0.63
1:E:246:MET:HE1	1:E:332:SER:HA	1.81	0.63
1:E:479:GLY:HA3	2:F:415:PHE:CE1	2.33	0.63
2:F:177:ARG:HG2	2:F:178:PRO:HD2	1.80	0.63
2:F:211:LEU:CG	2:F:212:HIS:H	2.11	0.63
1:I:235:ARG:NH2	2:J:390:GLN:OE1	2.30	0.63
1:I:349:LYS:HG2	1:I:377:VAL:HG22	1.79	0.63
2:L:211:LEU:CG	2:L:212:HIS:H	2.08	0.63
2:N:41:GLU:HB2	2:N:59:ASP:HA	1.79	0.63
2:P:455:LEU:HB3	2:P:456:PRO:HD3	1.80	0.63
1:A:406:LYS:HB2	2:B:29:PHE:CZ	2.33	0.63
2:B:101:PRO:HG2	2:B:105:ILE:HD13	1.79	0.63
2:D:576:MET:HB3	2:D:577:PRO:HD2	1.80	0.63
2:F:406:ALA:HA	2:H:406:ALA:HA	1.79	0.63
2:J:207:LEU:O	2:J:211:LEU:HD22	1.98	0.63
1:M:466:MET:HA	1:M:471:ILE:HG22	1.79	0.63
1:O:188:GLN:O	1:O:188:GLN:HG2	1.97	0.63
1:A:494:ARG:C	1:A:496:ASP:H	2.00	0.63
1:C:9:LEU:O	1:C:9:LEU:HD13	1.97	0.63
1:C:472:ASN:HD22	1:C:473:ASN:N	1.97	0.63
2:D:48:GLU:HG2	2:D:49:GLN:HG3	1.80	0.63
2:D:234:PRO:CB	2:D:235:PRO:HD3	2.24	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:420:GLN:H	2:D:448:GLN:HE21	1.44	0.63
2:D:507:GLY:O	2:D:510:ILE:HG22	1.98	0.63
1:E:406:LYS:HD2	2:F:29:PHE:CE1	2.33	0.63
1:G:417:MET:HB3	2:H:374:TYR:CE1	2.33	0.63
1:K:195:GLU:H	1:K:195:GLU:CD	2.00	0.63
1:A:311:LYS:HD3	2:B:261:THR:HG21	1.80	0.63
1:C:38:VAL:HG13	1:C:173:TYR:CE2	2.33	0.63
1:C:67:GLY:HA2	1:C:164:LEU:HD13	1.81	0.63
2:D:415:PHE:O	2:D:451:ARG:HD3	1.99	0.63
1:E:467:ILE:HA	1:E:470:GLY:HA2	1.81	0.63
1:G:188:GLN:HG2	1:G:189:GLU:N	2.13	0.63
2:J:387:ILE:HD12	1:K:241:MET:HG2	1.80	0.63
2:L:420:GLN:H	2:L:448:GLN:HE21	1.46	0.63
1:O:477:LEU:HD23	1:O:486:MET:HE1	1.80	0.63
2:P:177:ARG:HG2	2:P:178:PRO:HD2	1.80	0.63
1:A:217:VAL:HG23	2:D:510:ILE:HA	1.79	0.63
1:C:140:LEU:CD2	1:C:164:LEU:HD12	2.27	0.63
1:C:202:TRP:HA	1:C:207:PHE:HZ	1.63	0.63
1:C:414:GLU:HB2	1:C:415:PRO:CD	2.25	0.63
1:C:484:LEU:HG	2:D:465:ASN:ND2	2.14	0.63
2:D:41:GLU:HB3	2:D:58:SER:OG	1.99	0.63
1:E:299:THR:HG21	1:E:305:TYR:CE1	2.33	0.63
2:F:186:LEU:HD23	2:F:237:ILE:HG22	1.81	0.63
1:I:281:ASP:CB	1:I:282:PRO:HD3	2.28	0.63
2:J:147:HIS:CE1	2:J:159:ILE:H	2.16	0.63
1:K:414:GLU:HB2	1:K:415:PRO:CD	2.28	0.63
2:L:126:LEU:HD23	2:L:126:LEU:H	1.62	0.63
2:L:420:GLN:HE21	2:L:431:ILE:HG12	1.63	0.63
1:M:288:LEU:HB3	1:M:289:PRO:CD	2.26	0.63
2:B:310:ARG:HH22	2:B:312:ASP:HB2	1.64	0.63
1:C:246:MET:HE1	1:C:332:SER:CA	2.28	0.63
2:F:232:SER:CB	2:F:238:ASN:HA	2.28	0.63
2:J:420:GLN:HE21	2:J:431:ILE:HG12	1.62	0.63
2:N:101:PRO:HB3	2:N:285:GLU:CD	2.19	0.63
1:O:466:MET:SD	1:O:474:ILE:CG1	2.87	0.63
2:P:244:ILE:HD12	2:P:244:ILE:H	1.63	0.63
2:B:420:GLN:H	2:B:448:GLN:HE21	1.45	0.63
1:C:235:ARG:NH2	2:D:390:GLN:OE1	2.31	0.63
2:D:188:LYS:HD2	2:D:188:LYS:N	2.14	0.63
1:I:479:GLY:HA3	2:J:415:PHE:HE1	1.64	0.63
2:J:211:LEU:CG	2:J:212:HIS:H	2.11	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:373:ILE:CD1	1:K:459:LEU:HD11	2.29	0.63
2:L:52:VAL:O	2:L:52:VAL:HG12	1.98	0.63
2:N:177:ARG:HG2	2:N:178:PRO:HD2	1.79	0.63
2:N:232:SER:HB2	2:N:238:ASN:HA	1.79	0.63
2:N:391:PHE:HD2	2:N:392:PRO:CD	2.09	0.63
1:A:266:GLN:NE2	1:A:314:TRP:CD1	2.67	0.63
2:B:42:LYS:N	2:B:58:SER:HB3	2.14	0.63
1:C:475:ARG:HG3	1:C:475:ARG:NH1	2.13	0.63
1:E:362:LEU:HG	1:E:475:ARG:HH22	1.62	0.63
1:E:367:LEU:CD2	1:E:369:GLU:HG2	2.28	0.63
2:F:566:PRO:HB3	1:G:197:ILE:CG2	2.28	0.63
2:H:519:MET:HG3	2:H:533:TYR:CD1	2.34	0.63
1:K:263:PHE:CD2	1:K:441:GLU:HG3	2.34	0.63
1:M:299:THR:HG21	1:M:305:TYR:CE1	2.33	0.63
2:N:569:ILE:O	2:N:569:ILE:HD12	1.99	0.63
2:P:454:LEU:HD21	2:P:496:HIS:HB2	1.81	0.63
2:B:290:VAL:HG22	2:B:296:SER:OG	1.99	0.63
2:B:400:LEU:HD21	2:B:522:LEU:HD21	1.80	0.63
1:C:1:MET:HA	1:C:5:GLN:CG	2.29	0.63
1:C:181:PHE:HD2	1:C:182:SER:N	1.96	0.63
2:F:401:ARG:HD2	2:F:411:GLU:OE2	1.98	0.63
1:M:279:LEU:HB3	1:M:283:ALA:CB	2.24	0.63
1:M:414:GLU:HB2	1:M:415:PRO:CD	2.24	0.63
2:N:245:THR:HG22	2:N:246:VAL:N	2.13	0.63
1:O:370:PHE:HB2	1:O:462:GLU:OE2	1.99	0.63
2:P:245:THR:HG22	2:P:246:VAL:N	2.14	0.63
1:C:474:ILE:C	1:C:476:GLU:N	2.52	0.62
2:H:177:ARG:CG	2:H:178:PRO:HD2	2.30	0.62
1:K:199:SER:OG	1:K:200:GLY:N	2.32	0.62
1:M:194:PRO:C	1:M:196:MET:H	2.02	0.62
1:M:277:PHE:CD1	1:M:277:PHE:N	2.66	0.62
2:N:90:ARG:NH1	2:N:90:ARG:HB3	2.13	0.62
2:P:569:ILE:HD12	2:P:574:LEU:HB2	1.81	0.62
1:C:70:ILE:HG12	1:C:164:LEU:HD11	1.80	0.62
2:D:15:LEU:HA	2:D:85:GLN:HE22	1.62	0.62
2:D:245:THR:HG22	2:D:246:VAL:N	2.14	0.62
1:O:471:ILE:HG22	1:O:472:ASN:H	1.64	0.62
2:P:503:ASN:ND2	2:P:504:LYS:H	1.97	0.62
2:P:564:LEU:HD12	2:P:578:CYS:HB3	1.81	0.62
1:A:235:ARG:NH2	2:B:390:GLN:OE1	2.26	0.62
2:B:245:THR:HG22	2:B:246:VAL:N	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:107:LYS:HE2	2:D:109:ILE:HD11	1.81	0.62
2:D:178:PRO:O	2:D:194:ALA:HB3	1.99	0.62
2:J:470:LEU:CB	2:J:471:PRO:CD	2.77	0.62
1:K:404:ARG:HD3	1:K:429:TRP:CH2	2.34	0.62
1:K:484:LEU:HG	2:L:465:ASN:ND2	2.14	0.62
1:M:283:ALA:HA	1:M:322:ASN:CG	2.20	0.62
2:P:569:ILE:HD13	2:P:576:MET:O	1.98	0.62
2:B:147:HIS:CE1	2:B:159:ILE:H	2.17	0.62
1:C:140:LEU:O	1:C:143:VAL:HG12	1.99	0.62
2:F:49:GLN:O	2:F:52:VAL:HG22	2.00	0.62
2:J:197:LEU:O	2:J:200:ILE:HG13	1.99	0.62
2:N:565:HIS:O	2:N:568:VAL:HG22	2.00	0.62
1:O:196:MET:HE1	1:O:202:TRP:HA	1.81	0.62
2:B:426:LYS:O	2:B:568:VAL:HG12	2.00	0.62
1:E:362:LEU:CG	1:E:475:ARG:HH22	2.13	0.62
1:G:395:PHE:CZ	1:G:432:VAL:HG23	2.34	0.62
2:H:436:ALA:HB1	2:H:449:VAL:HG11	1.82	0.62
2:L:227:ASN:HB2	2:L:229:VAL:HG23	1.81	0.62
2:N:133:LYS:HD2	2:N:133:LYS:N	2.12	0.62
2:N:269:ILE:O	2:N:273:MET:HB2	1.99	0.62
2:P:107:LYS:HE2	2:P:109:ILE:HD11	1.82	0.62
1:A:214:ALA:O	2:D:512:HIS:HE1	1.82	0.62
2:B:177:ARG:HG2	2:B:178:PRO:HD2	1.81	0.62
2:B:504:LYS:O	1:C:194:PRO:HD3	1.98	0.62
2:F:515:LEU:CD1	2:F:551:ILE:HD12	2.30	0.62
2:J:128:ASN:H	2:J:250:ASN:ND2	1.98	0.62
2:L:40:SER:HA	2:L:62:LEU:CD2	2.29	0.62
1:M:265:PRO:HA	1:M:300:HIS:CE1	2.32	0.62
2:P:211:LEU:CG	2:P:212:HIS:H	2.10	0.62
2:P:420:GLN:H	2:P:448:GLN:NE2	1.98	0.62
1:A:266:GLN:HG2	1:A:271:ARG:NH1	2.14	0.62
2:B:576:MET:H	2:B:576:MET:HE2	1.63	0.62
1:C:140:LEU:CD1	1:C:159:LEU:HD21	2.30	0.62
2:F:197:LEU:O	2:F:200:ILE:HG13	2.00	0.62
2:F:565:HIS:O	2:F:568:VAL:HG22	1.99	0.62
1:I:492:LEU:HD22	2:L:399:LEU:HB3	1.81	0.62
2:L:71:ARG:CG	2:L:355:ARG:NH1	2.60	0.62
1:M:358:ARG:HG2	1:M:358:ARG:HH11	1.64	0.62
2:N:511:ILE:HG22	2:N:561:LEU:HD21	1.80	0.62
1:O:373:ILE:HG12	1:O:459:LEU:HD12	1.82	0.62
1:A:402:GLN:O	1:A:421:SER:HA	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:417:MET:HB3	2:D:374:TYR:HE1	1.64	0.62
2:J:310:ARG:NH2	2:J:312:ASP:HB2	2.13	0.62
2:J:454:LEU:CD2	2:J:496:HIS:HB2	2.29	0.62
2:L:535:ILE:H	2:L:535:ILE:CD1	2.09	0.62
2:P:188:LYS:HD2	2:P:188:LYS:N	2.13	0.62
2:P:207:LEU:O	2:P:211:LEU:HD22	1.98	0.62
2:P:565:HIS:O	2:P:568:VAL:HG22	1.99	0.62
1:C:64:THR:HG22	1:C:65:ALA:H	1.64	0.62
2:D:304:TYR:CE1	2:D:353:PRO:HD3	2.34	0.62
1:E:449:PRO:HG2	1:E:452:VAL:CG2	2.30	0.62
1:E:495:LEU:H	1:E:495:LEU:HD12	1.64	0.62
1:G:230:VAL:HG21	1:G:465:THR:HG22	1.81	0.62
2:H:415:PHE:O	2:H:451:ARG:HD3	1.99	0.62
1:K:414:GLU:CG	1:K:415:PRO:HD3	2.29	0.62
1:O:414:GLU:HB2	1:O:415:PRO:CD	2.29	0.62
1:O:435:SER:HA	3:O:509:PHE:CE2	2.34	0.62
2:D:124:ALA:CB	2:D:300:PRO:HD3	2.30	0.62
1:E:327:HIS:CA	1:E:356:VAL:HG11	2.29	0.62
1:G:343:LYS:CB	1:G:344:PRO:CD	2.77	0.62
2:H:420:GLN:H	2:H:448:GLN:NE2	1.98	0.62
2:H:470:LEU:HB3	2:H:471:PRO:HD3	1.81	0.62
1:I:193:SER:HB2	1:I:194:PRO:HD2	1.81	0.62
1:K:281:ASP:O	1:K:283:ALA:N	2.32	0.62
2:N:420:GLN:HG3	2:N:448:GLN:HE21	1.64	0.62
1:A:414:GLU:HB2	1:A:415:PRO:CD	2.26	0.61
1:A:480:HIS:H	1:A:480:HIS:CD2	2.16	0.61
1:C:113:ILE:HD12	1:C:125:VAL:HG11	1.81	0.61
1:C:449:PRO:HG2	1:C:452:VAL:CG2	2.30	0.61
2:F:41:GLU:HB3	2:F:58:SER:CB	2.29	0.61
2:F:262:LYS:O	2:F:266:VAL:HG23	1.99	0.61
2:F:420:GLN:H	2:F:448:GLN:HE21	1.47	0.61
1:G:263:PHE:CD2	1:G:441:GLU:HG3	2.35	0.61
2:H:188:LYS:HD2	2:H:188:LYS:N	2.15	0.61
2:H:341:ILE:O	2:H:341:ILE:HG22	1.99	0.61
2:L:15:LEU:HA	2:L:85:GLN:HE22	1.65	0.61
2:L:82:ARG:HG2	2:L:335:TYR:OH	2.00	0.61
2:L:215:GLU:OE1	2:L:221:PRO:HD2	2.00	0.61
1:O:280:ARG:HB2	2:P:440:SER:HA	1.80	0.61
1:O:472:ASN:C	1:O:472:ASN:HD22	2.01	0.61
1:A:373:ILE:CD1	1:A:459:LEU:HD11	2.29	0.61
1:C:188:GLN:HA	1:C:188:GLN:NE2	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:263:PHE:CD2	1:C:441:GLU:HG3	2.35	0.61
1:E:284:GLU:O	1:E:286:LEU:HG	2.00	0.61
2:L:178:PRO:O	2:L:194:ALA:HB3	1.99	0.61
2:N:101:PRO:HG2	2:N:105:ILE:HD13	1.81	0.61
1:A:316:LEU:O	1:A:316:LEU:HD23	2.00	0.61
2:D:33:LEU:HD22	2:D:67:VAL:HG22	1.81	0.61
2:D:565:HIS:ND1	2:D:566:PRO:HD2	2.15	0.61
1:G:247:PRO:HB3	2:H:391:PHE:CE1	2.35	0.61
2:H:44:ILE:O	2:H:46:SER:N	2.33	0.61
2:J:406:ALA:HA	2:L:406:ALA:HA	1.82	0.61
1:M:355:ARG:HG3	1:M:371:HIS:CD2	2.35	0.61
2:N:503:ASN:ND2	2:N:504:LYS:H	1.98	0.61
1:O:267:GLN:HA	2:P:152:ARG:NH1	2.16	0.61
2:P:178:PRO:O	2:P:194:ALA:HB3	2.00	0.61
2:B:101:PRO:HB3	2:B:285:GLU:CD	2.21	0.61
1:C:208:LYS:HE3	1:C:209:PRO:HD2	1.81	0.61
1:G:226:PRO:HB3	1:G:469:TYR:CE1	2.33	0.61
2:H:426:LYS:O	2:H:568:VAL:HG12	2.01	0.61
2:H:515:LEU:O	2:H:515:LEU:HD23	2.00	0.61
1:I:468:LYS:HD3	1:I:496:ASP:CA	2.30	0.61
2:J:290:VAL:HG22	2:J:296:SER:OG	2.00	0.61
1:K:210:TYR:HB3	1:K:212:PHE:HE1	1.66	0.61
1:M:414:GLU:CG	1:M:415:PRO:HD3	2.30	0.61
1:M:425:GLY:O	1:M:426:LEU:HD22	2.00	0.61
2:B:71:ARG:HG3	2:B:355:ARG:CZ	2.29	0.61
2:B:232:SER:CB	2:B:238:ASN:HA	2.30	0.61
1:E:466:MET:O	1:E:470:GLY:HA2	2.01	0.61
1:E:477:LEU:HD12	1:E:478:VAL:HG22	1.80	0.61
2:F:124:ALA:HA	2:F:287:ALA:HB2	1.83	0.61
2:H:107:LYS:HE2	2:H:109:ILE:HD11	1.82	0.61
1:I:281:ASP:O	1:I:283:ALA:N	2.33	0.61
2:J:117:ILE:N	2:J:117:ILE:HD12	2.15	0.61
2:L:454:LEU:HD21	2:L:496:HIS:HB2	1.82	0.61
2:P:360:HIS:HD2	2:P:362:CYS:HB2	1.66	0.61
1:A:440:PRO:HG3	2:B:360:HIS:NE2	2.16	0.61
3:A:509:PHE:O	3:A:509:PHE:CD1	2.53	0.61
1:C:208:LYS:HE2	1:C:209:PRO:O	2.00	0.61
1:C:266:GLN:HE22	1:C:315:LYS:H	1.49	0.61
1:G:224:LEU:HD22	2:H:401:ARG:HH12	1.65	0.61
1:G:420:PHE:HD2	1:G:431:GLU:HA	1.66	0.61
2:H:564:LEU:HD12	2:H:578:CYS:HB3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:188:LYS:HD2	2:L:188:LYS:N	2.15	0.61
1:A:494:ARG:HE	2:D:395:LYS:HE3	1.66	0.61
2:B:20:THR:HB	2:B:23:GLU:H	1.66	0.61
1:E:265:PRO:HD3	1:E:310:TYR:CZ	2.35	0.61
2:F:118:ARG:HB2	2:F:173:TYR:OH	2.00	0.61
1:G:271:ARG:HG3	1:G:271:ARG:NH1	2.15	0.61
1:I:492:LEU:HD11	2:L:400:LEU:HD23	1.82	0.61
1:M:193:SER:HG	1:M:194:PRO:HD2	1.65	0.61
1:A:192:LEU:HD21	2:D:566:PRO:CG	2.31	0.61
1:C:292:TYR:O	1:C:296:VAL:HG23	2.01	0.61
2:D:341:ILE:HG22	2:D:341:ILE:O	2.00	0.61
2:F:133:LYS:HD2	2:F:133:LYS:N	2.14	0.61
2:H:245:THR:HG22	2:H:246:VAL:N	2.15	0.61
2:H:480:ILE:HG12	2:H:496:HIS:NE2	2.16	0.61
1:I:197:ILE:HD11	2:L:566:PRO:HG3	1.83	0.61
1:I:292:TYR:O	1:I:296:VAL:HG23	2.00	0.61
1:I:422:TYR:HE1	1:I:427:LYS:HA	1.66	0.61
2:J:71:ARG:HG3	2:J:355:ARG:NH1	2.15	0.61
2:J:107:LYS:HE2	2:J:109:ILE:HD11	1.81	0.61
2:J:232:SER:HB2	2:J:238:ASN:HA	1.82	0.61
2:J:565:HIS:ND1	2:J:566:PRO:HD2	2.15	0.61
2:L:207:LEU:O	2:L:211:LEU:HD22	2.00	0.61
2:L:515:LEU:CD1	2:L:551:ILE:HD12	2.31	0.61
2:N:44:ILE:C	2:N:46:SER:H	2.04	0.61
2:N:90:ARG:HB3	2:N:90:ARG:HH11	1.66	0.61
2:N:420:GLN:H	2:N:448:GLN:HE21	1.47	0.61
2:B:537:ALA:HB2	1:C:212:PHE:CD1	2.36	0.61
1:C:57:SER:HB3	1:C:171:LYS:HD3	1.83	0.61
1:E:192:LEU:HG	1:E:196:MET:HE1	1.81	0.61
1:E:281:ASP:HB2	2:F:438:HIS:H	1.66	0.61
2:F:569:ILE:HD12	2:F:574:LEU:HB2	1.81	0.61
1:I:440:PRO:HG3	2:J:360:HIS:NE2	2.15	0.61
1:M:414:GLU:HG3	1:M:437:VAL:HB	1.81	0.61
2:P:470:LEU:CB	2:P:471:PRO:CD	2.77	0.61
1:C:61:TRP:CZ3	1:C:167:GLU:HB2	2.36	0.61
2:F:381:LEU:CD2	2:F:382:PRO:HD2	2.26	0.61
1:G:449:PRO:HG2	1:G:452:VAL:CG2	2.31	0.61
2:H:126:LEU:H	2:H:126:LEU:HD23	1.65	0.61
1:K:420:PHE:CD2	1:K:431:GLU:HA	2.36	0.61
2:N:470:LEU:HB3	2:N:471:PRO:HD3	1.83	0.61
1:A:357:PHE:HE2	2:B:416:ALA:HB3	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:101:PRO:HB3	2:F:285:GLU:CD	2.21	0.60
2:F:236:ILE:HG22	2:F:237:ILE:HG13	1.81	0.60
2:H:565:HIS:ND1	2:H:566:PRO:HD2	2.16	0.60
1:I:343:LYS:CB	1:I:344:PRO:CD	2.77	0.60
2:J:178:PRO:O	2:J:194:ALA:HB3	2.00	0.60
2:P:50:GLY:O	2:P:51:ASN:HB2	2.00	0.60
1:A:414:GLU:CG	1:A:415:PRO:HD3	2.31	0.60
1:C:119:ALA:O	1:C:121:ASP:N	2.34	0.60
1:C:472:ASN:ND2	1:C:473:ASN:N	2.48	0.60
2:H:470:LEU:CB	2:H:471:PRO:CD	2.79	0.60
1:I:258:ASN:ND2	1:I:327:HIS:CE1	2.69	0.60
1:K:479:GLY:HA3	2:L:415:PHE:CE1	2.36	0.60
2:L:68:PRO:C	2:L:70:ASN:H	2.04	0.60
2:L:565:HIS:O	2:L:568:VAL:HG22	2.01	0.60
1:O:196:MET:CE	1:O:202:TRP:HA	2.31	0.60
2:P:101:PRO:HB3	2:P:285:GLU:CD	2.20	0.60
2:F:128:ASN:H	2:F:250:ASN:ND2	1.99	0.60
2:H:262:LYS:O	2:H:266:VAL:HG23	2.01	0.60
1:I:377:VAL:HG12	1:I:382:LEU:HD11	1.83	0.60
2:J:436:ALA:HB1	2:J:449:VAL:HG11	1.83	0.60
2:L:186:LEU:HD23	2:L:237:ILE:HG22	1.83	0.60
2:L:245:THR:HG22	2:L:246:VAL:N	2.16	0.60
1:M:449:PRO:HG2	1:M:452:VAL:HG23	1.82	0.60
2:B:197:LEU:O	2:B:200:ILE:HG13	2.01	0.60
2:F:232:SER:HB2	2:F:238:ASN:HA	1.81	0.60
2:F:537:ALA:HB2	1:G:212:PHE:CD2	2.37	0.60
1:C:193:SER:OG	1:C:196:MET:HG3	2.00	0.60
2:F:126:LEU:HD23	2:F:126:LEU:H	1.64	0.60
2:F:301:GLU:O	2:F:303:ALA:N	2.35	0.60
1:G:424:GLN:OE1	1:G:426:LEU:HD13	2.02	0.60
1:K:440:PRO:HG3	2:L:360:HIS:NE2	2.17	0.60
2:L:244:ILE:H	2:L:244:ILE:HD12	1.66	0.60
2:N:334:MET:HG2	2:N:367:ASP:HB3	1.81	0.60
1:O:403:LEU:HD22	1:O:419:VAL:CG1	2.30	0.60
1:C:282:PRO:HD2	2:D:437:VAL:HG13	1.83	0.60
2:D:6:VAL:HG21	2:D:11:LEU:HD12	1.83	0.60
2:D:290:VAL:HG22	2:D:296:SER:OG	2.02	0.60
1:E:417:MET:HB3	2:F:374:TYR:CE1	2.36	0.60
2:F:67:VAL:CG1	2:F:68:PRO:HD2	2.31	0.60
2:F:182:LYS:CG	1:K:472:ASN:HB2	2.32	0.60
2:J:533:TYR:HA	2:J:552:PHE:O	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:124:ALA:CB	2:L:300:PRO:HD3	2.31	0.60
1:M:370:PHE:CB	1:M:462:GLU:OE2	2.44	0.60
2:N:38:ILE:HD13	2:N:63:TYR:HE1	1.67	0.60
2:N:470:LEU:CB	2:N:471:PRO:CD	2.79	0.60
1:O:279:LEU:HD12	2:P:437:VAL:HG12	1.83	0.60
2:P:301:GLU:O	2:P:303:ALA:N	2.34	0.60
1:C:23:SER:OG	1:C:173:TYR:HB2	2.00	0.60
1:C:116:ASP:O	1:C:117:LYS:HD3	2.02	0.60
1:C:151:LEU:HG	1:C:156:ARG:HD3	1.83	0.60
2:D:543:PHE:CD2	2:D:562:GLY:HA3	2.37	0.60
2:F:177:ARG:CG	2:F:178:PRO:HD2	2.31	0.60
2:F:310:ARG:HH22	2:F:312:ASP:HB2	1.67	0.60
2:H:82:ARG:HG2	2:H:335:TYR:OH	2.01	0.60
2:H:90:ARG:NH1	2:H:90:ARG:HB3	2.17	0.60
2:H:381:LEU:CD2	2:H:382:PRO:HD2	2.23	0.60
1:M:233:GLN:NE2	1:M:495:LEU:HG	2.17	0.60
1:M:277:PHE:CZ	1:M:359:ASN:HB2	2.36	0.60
2:B:124:ALA:HA	2:B:287:ALA:HB2	1.84	0.60
2:B:232:SER:HB2	2:B:238:ASN:HA	1.84	0.60
1:C:56:ARG:HB2	1:C:172:THR:CG2	2.32	0.60
2:D:101:PRO:HB3	2:D:285:GLU:CD	2.21	0.60
1:E:412:TYR:O	1:E:438:PHE:HA	2.02	0.60
2:F:192:TYR:N	2:F:192:TYR:CD1	2.69	0.60
1:G:266:GLN:HE21	1:G:318:GLU:CG	2.15	0.60
2:H:207:LEU:O	2:H:211:LEU:HD22	2.02	0.60
1:I:350:TYR:HB2	1:I:376:VAL:HG13	1.84	0.60
2:J:507:GLY:O	2:J:510:ILE:HG22	2.01	0.60
1:K:373:ILE:HG12	1:K:459:LEU:HD12	1.84	0.60
2:L:449:VAL:HG12	2:L:450:ALA:N	2.17	0.60
1:O:188:GLN:HG3	1:O:206:PRO:O	2.01	0.60
1:O:414:GLU:CG	1:O:415:PRO:HD3	2.32	0.60
2:P:262:LYS:O	2:P:266:VAL:HG23	2.01	0.60
1:A:267:GLN:HE22	2:B:262:LYS:NZ	1.99	0.60
2:B:192:TYR:N	2:B:192:TYR:CD1	2.69	0.60
1:C:229:LYS:HD2	1:C:494:ARG:NH1	2.17	0.60
2:D:360:HIS:HD2	2:D:362:CYS:HB2	1.66	0.60
1:G:262:LEU:O	1:G:412:TYR:HB3	2.02	0.60
1:G:266:GLN:NE2	1:G:318:GLU:HB3	2.17	0.60
2:J:124:ALA:CB	2:J:300:PRO:HD3	2.31	0.60
2:L:101:PRO:HB3	2:L:285:GLU:CD	2.22	0.60
2:N:62:LEU:HD23	2:N:62:LEU:H	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:207:LEU:O	2:N:211:LEU:HD22	2.01	0.60
2:P:290:VAL:HG22	2:P:296:SER:OG	2.01	0.60
1:A:449:PRO:HG2	1:A:452:VAL:CG2	2.31	0.60
2:B:391:PHE:HD2	2:B:392:PRO:CD	2.15	0.60
1:C:224:LEU:HD22	2:D:401:ARG:HH12	1.67	0.60
2:D:68:PRO:C	2:D:70:ASN:H	2.05	0.60
2:D:271:VAL:HG22	2:D:284:VAL:CG2	2.32	0.60
1:E:494:ARG:HG3	1:E:495:LEU:HD12	1.82	0.60
2:H:71:ARG:HH22	2:H:366:GLU:CD	2.05	0.60
2:P:122:VAL:HG21	2:P:299:PHE:CD2	2.36	0.60
2:P:420:GLN:H	2:P:448:GLN:HE21	1.48	0.60
2:B:454:LEU:CD2	2:B:496:HIS:HB2	2.31	0.59
2:J:172:THR:O	2:J:223:ILE:HA	2.02	0.59
2:L:360:HIS:HD2	2:L:362:CYS:HB2	1.67	0.59
2:L:515:LEU:HD11	2:L:551:ILE:HG21	1.84	0.59
1:M:215:HIS:O	1:M:217:VAL:N	2.33	0.59
1:A:187:LYS:HA	1:A:187:LYS:HE3	1.84	0.59
1:A:279:LEU:HD22	2:B:437:VAL:HG12	1.84	0.59
1:A:479:GLY:HA3	2:B:415:PHE:HE1	1.67	0.59
2:B:360:HIS:HD2	2:B:362:CYS:HB2	1.67	0.59
2:B:451:ARG:HH22	2:B:478:SER:HB3	1.67	0.59
2:B:508:PHE:CD1	2:B:563:VAL:HG23	2.37	0.59
1:C:477:LEU:HD12	1:C:478:VAL:HG23	1.84	0.59
2:F:436:ALA:HB1	2:F:449:VAL:CG1	2.33	0.59
2:F:455:LEU:HB3	2:F:456:PRO:HD3	1.84	0.59
2:H:20:THR:HB	2:H:23:GLU:H	1.67	0.59
2:H:188:LYS:HE2	2:H:201:TYR:OH	2.02	0.59
2:J:400:LEU:HD21	2:J:522:LEU:HD21	1.84	0.59
1:K:197:ILE:HD13	1:K:197:ILE:H	1.68	0.59
2:N:454:LEU:CD2	2:N:496:HIS:HB2	2.32	0.59
2:D:133:LYS:HD2	2:D:133:LYS:N	2.16	0.59
2:D:244:ILE:H	2:D:244:ILE:HD12	1.67	0.59
2:F:122:VAL:HG21	2:F:299:PHE:CD2	2.38	0.59
1:G:363:ASP:N	1:G:366:HIS:HA	2.15	0.59
1:G:479:GLY:O	1:G:482:VAL:HG12	2.02	0.59
1:I:281:ASP:C	1:I:283:ALA:N	2.54	0.59
1:K:227:LEU:HD22	1:K:461:LEU:HD12	1.82	0.59
2:L:33:LEU:HD22	2:L:67:VAL:HG22	1.84	0.59
2:L:576:MET:HB3	2:L:577:PRO:HD2	1.85	0.59
2:P:68:PRO:C	2:P:70:ASN:H	2.05	0.59
2:P:207:LEU:HD21	2:P:237:ILE:HG23	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:532:GLY:O	2:F:553:ALA:HA	2.03	0.59
2:H:73:ASP:HA	2:H:273:MET:HE1	1.85	0.59
1:I:272:ASP:C	1:I:274:HIS:H	2.05	0.59
2:J:177:ARG:CG	2:J:178:PRO:HD2	2.32	0.59
2:J:360:HIS:HD2	2:J:362:CYS:HB2	1.68	0.59
2:J:576:MET:HB3	2:J:577:PRO:HD2	1.83	0.59
1:K:262:LEU:O	1:K:412:TYR:HB3	2.02	0.59
2:L:301:GLU:O	2:L:303:ALA:N	2.35	0.59
1:M:262:LEU:O	1:M:412:TYR:HB3	2.02	0.59
2:P:71:ARG:HG3	2:P:355:ARG:CZ	2.32	0.59
1:A:350:TYR:HB2	1:A:376:VAL:HG13	1.83	0.59
2:B:301:GLU:O	2:B:303:ALA:N	2.35	0.59
1:C:267:GLN:NE2	2:D:262:LYS:HE2	2.15	0.59
2:D:301:GLU:O	2:D:303:ALA:N	2.36	0.59
1:E:282:PRO:CG	2:F:437:VAL:HG13	2.32	0.59
1:G:364:ALA:C	1:G:366:HIS:N	2.52	0.59
1:K:466:MET:HG3	1:K:471:ILE:HG22	1.83	0.59
1:A:207:PHE:CE2	2:D:544:PHE:HZ	2.20	0.59
2:B:157:VAL:HG11	2:B:266:VAL:HG21	1.84	0.59
2:D:262:LYS:O	2:D:266:VAL:HG23	2.02	0.59
2:D:321:ARG:HD3	2:H:321:ARG:CD	2.32	0.59
2:D:515:LEU:HD23	2:D:515:LEU:O	2.03	0.59
1:I:493:CYS:SG	1:I:496:ASP:OD2	2.58	0.59
2:L:503:ASN:ND2	2:L:504:LYS:H	2.00	0.59
1:M:210:TYR:HB3	1:M:212:PHE:HE2	1.67	0.59
2:P:40:SER:HB2	2:P:42:LYS:CG	2.21	0.59
1:A:299:THR:HG21	1:A:305:TYR:CD1	2.38	0.59
1:A:412:TYR:O	1:A:438:PHE:HA	2.02	0.59
2:B:177:ARG:CG	2:B:178:PRO:HD2	2.32	0.59
1:E:192:LEU:HA	1:E:196:MET:HE1	1.84	0.59
1:E:258:ASN:C	1:E:259:PHE:HD2	2.06	0.59
1:E:414:GLU:CG	1:E:415:PRO:HD3	2.32	0.59
1:E:479:GLY:HA3	2:F:415:PHE:HE1	1.67	0.59
2:F:564:LEU:HD12	2:F:578:CYS:HB3	1.83	0.59
1:G:228:LEU:HD12	2:H:411:GLU:CD	2.22	0.59
2:H:124:ALA:HA	2:H:287:ALA:HB2	1.84	0.59
2:J:301:GLU:HG3	2:J:301:GLU:O	2.01	0.59
2:J:451:ARG:HH22	2:J:478:SER:HB3	1.67	0.59
1:M:284:GLU:HG3	1:M:320:ARG:HE	1.66	0.59
2:N:68:PRO:C	2:N:70:ASN:H	2.06	0.59
2:N:172:THR:O	2:N:223:ILE:HA	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:351:ILE:HD12	2:N:351:ILE:N	2.17	0.59
1:O:281:ASP:HB2	2:P:438:HIS:HB2	1.83	0.59
1:O:471:ILE:CG2	1:O:472:ASN:H	2.14	0.59
2:P:124:ALA:CB	2:P:300:PRO:HD3	2.33	0.59
1:C:115:VAL:CG1	1:C:116:ASP:H	2.07	0.59
1:E:192:LEU:HD11	2:H:544:PHE:CD2	2.37	0.59
2:F:90:ARG:NH1	2:F:90:ARG:HB3	2.16	0.59
2:F:360:HIS:HD2	2:F:362:CYS:HB2	1.67	0.59
1:G:210:TYR:CD1	1:G:211:ASN:N	2.71	0.59
1:G:233:GLN:O	1:G:237:ILE:HG12	2.03	0.59
2:H:6:VAL:HG21	2:H:11:LEU:HD12	1.84	0.59
1:M:296:VAL:O	1:M:300:HIS:HB2	2.03	0.59
2:N:215:GLU:OE1	2:N:221:PRO:HD2	2.02	0.59
1:O:197:ILE:C	1:O:199:SER:H	2.05	0.59
1:A:207:PHE:N	1:A:207:PHE:CD2	2.70	0.59
1:C:137:GLN:HE21	1:C:141:GLN:HG3	1.66	0.59
2:D:207:LEU:O	2:D:211:LEU:HD22	2.02	0.59
1:E:235:ARG:NH1	1:E:245:GLU:OE1	2.35	0.59
1:I:224:LEU:HD22	2:J:401:ARG:HH12	1.68	0.59
1:I:278:PHE:CE1	1:I:321:LYS:HD3	2.37	0.59
1:I:466:MET:SD	1:I:474:ILE:CG1	2.91	0.59
2:J:68:PRO:C	2:J:70:ASN:H	2.06	0.59
1:K:449:PRO:HG2	1:K:452:VAL:CG2	2.32	0.59
1:K:480:HIS:CD2	1:K:480:HIS:N	2.66	0.59
2:N:525:PRO:O	2:N:532:GLY:HA2	2.02	0.59
1:O:280:ARG:HB2	2:P:440:SER:CA	2.32	0.59
1:O:299:THR:HG21	1:O:305:TYR:CD1	2.38	0.59
2:P:48:GLU:HG3	2:P:49:GLN:H	1.68	0.59
1:A:222:GLY:HA3	2:B:405:ALA:O	2.02	0.59
1:A:236:GLN:O	1:A:240:GLU:HG3	2.03	0.59
1:A:263:PHE:CD2	1:A:441:GLU:HG3	2.37	0.59
2:B:186:LEU:HD23	2:B:237:ILE:HG22	1.84	0.59
2:B:576:MET:HB3	2:B:577:PRO:HD2	1.84	0.59
1:C:408:ALA:HB2	1:C:418:GLU:HG3	1.83	0.59
1:C:472:ASN:H	1:C:472:ASN:ND2	1.99	0.59
2:F:308:MET:SD	2:F:346:GLN:HB3	2.42	0.59
1:G:268:HIS:O	1:G:270:ALA:N	2.36	0.59
2:H:360:HIS:HD2	2:H:362:CYS:HB2	1.66	0.59
2:J:133:LYS:HD2	2:J:133:LYS:N	2.15	0.59
2:J:321:ARG:HD3	2:N:321:ARG:HD3	1.83	0.59
2:L:45:ILE:O	2:L:45:ILE:HG22	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:466:MET:HE1	1:M:474:ILE:HG12	1.85	0.59
2:N:177:ARG:CG	2:N:178:PRO:HD2	2.32	0.59
2:P:565:HIS:ND1	2:P:566:PRO:HD2	2.18	0.59
1:A:373:ILE:HG12	1:A:459:LEU:CD1	2.32	0.58
2:B:185:PRO:HB2	2:B:188:LYS:HD3	1.85	0.58
2:B:436:ALA:HB1	2:B:449:VAL:HG11	1.85	0.58
1:E:298:ARG:HG2	1:E:299:THR:N	2.17	0.58
1:G:412:TYR:O	1:G:438:PHE:HA	2.03	0.58
1:G:413:THR:HB	1:G:437:VAL:H	1.68	0.58
1:G:423:HIS:CD2	1:G:427:LYS:HG2	2.38	0.58
2:H:301:GLU:O	2:H:303:ALA:N	2.36	0.58
2:L:39:THR:HB	2:L:44:ILE:HG13	1.83	0.58
2:L:90:ARG:HB3	2:L:90:ARG:NH1	2.17	0.58
1:M:292:TYR:O	1:M:296:VAL:HG23	2.02	0.58
1:M:466:MET:HA	1:M:471:ILE:CG2	2.33	0.58
2:N:360:HIS:HD2	2:N:362:CYS:HB2	1.67	0.58
1:O:405:PHE:CE2	1:O:419:VAL:HG13	2.37	0.58
1:O:417:MET:HB3	2:P:374:TYR:HE1	1.66	0.58
2:B:470:LEU:HB2	2:B:471:PRO:HD3	1.86	0.58
1:C:343:LYS:CB	1:C:344:PRO:CD	2.78	0.58
2:J:360:HIS:CD2	2:J:362:CYS:H	2.21	0.58
1:K:198:SER:O	1:K:199:SER:HB3	2.03	0.58
1:K:316:LEU:O	1:K:316:LEU:HD23	2.03	0.58
2:N:41:GLU:HA	2:N:41:GLU:OE2	2.03	0.58
2:N:132:THR:HG22	2:N:134:ASP:N	2.18	0.58
2:N:147:HIS:CE1	2:N:159:ILE:H	2.22	0.58
1:O:362:LEU:HD22	2:P:443:LYS:HD3	1.85	0.58
1:A:251:PHE:H	2:B:493:ASN:HD21	1.49	0.58
1:A:417:MET:HB3	2:B:374:TYR:CE1	2.38	0.58
2:B:126:LEU:HD23	2:B:126:LEU:H	1.68	0.58
2:B:178:PRO:O	2:B:194:ALA:HB3	2.02	0.58
1:E:253:GLU:OE1	1:E:257:TRP:HB2	2.03	0.58
1:E:367:LEU:CG	1:E:368:ALA:N	2.66	0.58
2:F:39:THR:O	2:F:62:LEU:HD23	2.03	0.58
2:H:449:VAL:HG12	2:H:450:ALA:N	2.17	0.58
1:I:391:LEU:HD13	1:I:419:VAL:HG11	1.86	0.58
2:J:147:HIS:CE1	2:J:159:ILE:HG12	2.38	0.58
2:L:42:LYS:HD3	2:L:42:LYS:O	2.02	0.58
1:M:279:LEU:HD22	1:M:322:ASN:HD22	1.68	0.58
1:M:466:MET:HB3	1:M:467:ILE:HD12	1.85	0.58
2:N:189:THR:HG23	2:N:190:LYS:H	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:298:ARG:HG3	1:O:298:ARG:NH1	2.19	0.58
2:P:514:LEU:HD23	2:P:581:LEU:HD23	1.83	0.58
1:E:287:GLN:OE1	1:E:287:GLN:HA	2.04	0.58
2:F:290:VAL:HG22	2:F:296:SER:OG	2.03	0.58
2:F:449:VAL:HG12	2:F:450:ALA:N	2.19	0.58
2:F:470:LEU:HB2	2:F:471:PRO:CD	2.34	0.58
1:G:414:GLU:CG	1:G:415:PRO:HD3	2.32	0.58
2:H:147:HIS:CE1	2:H:159:ILE:H	2.20	0.58
2:H:420:GLN:H	2:H:448:GLN:HE21	1.50	0.58
2:J:62:LEU:HD23	2:J:62:LEU:N	2.18	0.58
2:J:101:PRO:HB3	2:J:285:GLU:CD	2.24	0.58
2:J:420:GLN:HG3	2:J:448:GLN:HE21	1.67	0.58
1:K:362:LEU:HB2	2:L:443:LYS:HD3	1.85	0.58
2:L:20:THR:HB	2:L:23:GLU:H	1.69	0.58
1:M:412:TYR:O	1:M:438:PHE:HA	2.03	0.58
1:O:412:TYR:O	1:O:438:PHE:HA	2.03	0.58
2:P:400:LEU:HD21	2:P:522:LEU:HD21	1.84	0.58
2:P:426:LYS:O	2:P:568:VAL:HG12	2.01	0.58
2:P:515:LEU:HD11	2:P:551:ILE:HG21	1.86	0.58
1:A:246:MET:HE1	1:A:332:SER:HA	1.85	0.58
2:B:221:PRO:HB2	2:B:234:PRO:HG2	1.86	0.58
2:B:399:LEU:CD1	1:C:494:ARG:HB2	2.34	0.58
2:B:414:THR:HG23	2:B:457:GLY:HA3	1.85	0.58
1:C:47:LEU:HD23	1:C:209:PRO:HD3	1.85	0.58
1:C:412:TYR:O	1:C:438:PHE:HA	2.03	0.58
2:D:188:LYS:HE2	2:D:201:TYR:OH	2.04	0.58
2:D:357:ASP:O	2:D:359:ILE:HG23	2.04	0.58
1:E:218:LEU:HD23	1:E:219:PRO:HD2	1.86	0.58
2:F:62:LEU:HD23	2:F:62:LEU:N	2.19	0.58
2:F:147:HIS:CE1	2:F:159:ILE:H	2.22	0.58
2:F:515:LEU:O	2:F:515:LEU:HD23	2.03	0.58
1:G:219:PRO:O	1:G:221:SER:N	2.36	0.58
2:H:178:PRO:O	2:H:194:ALA:HB3	2.02	0.58
2:J:90:ARG:HB3	2:J:90:ARG:NH1	2.19	0.58
1:K:292:TYR:O	1:K:296:VAL:HG23	2.03	0.58
2:L:426:LYS:HA	2:L:571:LYS:CE	2.34	0.58
1:M:199:SER:C	1:M:201:SER:N	2.57	0.58
1:M:422:TYR:HD1	1:M:423:HIS:N	2.01	0.58
1:M:471:ILE:HG12	1:M:472:ASN:N	2.19	0.58
2:P:414:THR:HG23	2:P:457:GLY:HA3	1.86	0.58
1:A:214:ALA:O	2:D:512:HIS:CE1	2.57	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:494:ARG:HE	2:D:395:LYS:CE	2.17	0.58
1:C:55:LEU:CD2	1:C:171:LYS:HD2	2.27	0.58
1:C:64:THR:HB	1:C:67:GLY:H	1.67	0.58
1:C:77:GLU:HG3	1:C:106:LYS:HB3	1.86	0.58
2:D:45:ILE:HD13	2:D:52:VAL:HB	1.84	0.58
2:D:124:ALA:HA	2:D:287:ALA:HB2	1.84	0.58
2:D:324:PRO:HG3	2:D:344:GLY:O	2.04	0.58
2:J:77:LEU:HD23	2:J:77:LEU:C	2.23	0.58
2:J:498:CYS:HB2	2:J:582:GLU:HG3	1.85	0.58
2:J:511:ILE:HG22	2:J:561:LEU:HD21	1.85	0.58
1:M:365:THR:O	1:M:474:ILE:HD12	2.04	0.58
2:N:436:ALA:HB1	2:N:449:VAL:CG1	2.32	0.58
1:O:355:ARG:HA	1:O:371:HIS:HA	1.86	0.58
1:A:496:ASP:C	1:A:498:GLU:H	2.07	0.58
1:E:367:LEU:HD22	2:F:415:PHE:CE2	2.39	0.58
1:K:279:LEU:HD21	1:K:322:ASN:HB3	1.86	0.58
1:K:417:MET:HB3	2:L:374:TYR:CE1	2.39	0.58
2:L:122:VAL:HG21	2:L:299:PHE:CD2	2.37	0.58
2:L:185:PRO:HB2	2:L:188:LYS:HD3	1.86	0.58
1:M:213:LEU:O	1:M:215:HIS:N	2.31	0.58
1:O:276:THR:HG23	1:O:326:THR:CG2	2.33	0.58
2:B:227:ASN:HB2	2:B:229:VAL:HG23	1.85	0.58
2:B:420:GLN:HG3	2:B:448:GLN:HE21	1.68	0.58
2:D:20:THR:HB	2:D:23:GLU:H	1.69	0.58
2:F:142:LEU:HD23	2:F:142:LEU:O	2.04	0.58
2:F:341:ILE:HG22	2:F:341:ILE:O	2.02	0.58
2:F:451:ARG:HH22	2:F:478:SER:HB3	1.68	0.58
1:G:268:HIS:O	1:G:271:ARG:N	2.37	0.58
1:K:280:ARG:HH11	1:K:280:ARG:CB	2.16	0.58
1:K:398:LEU:HA	1:K:495:LEU:HD13	1.84	0.58
2:L:124:ALA:HA	2:L:287:ALA:HB2	1.85	0.58
1:A:326:THR:C	1:A:356:VAL:CG1	2.72	0.58
2:B:207:LEU:O	2:B:211:LEU:HD22	2.04	0.58
2:B:391:PHE:CD2	2:B:392:PRO:HD2	2.35	0.58
2:B:515:LEU:HD23	2:B:515:LEU:O	2.04	0.58
2:D:207:LEU:HD21	2:D:237:ILE:HG23	1.84	0.58
1:E:265:PRO:HA	1:E:300:HIS:CE1	2.37	0.58
1:E:414:GLU:CB	1:E:415:PRO:CD	2.80	0.58
2:F:244:ILE:H	2:F:244:ILE:HD12	1.67	0.58
1:G:480:HIS:CD2	1:G:480:HIS:N	2.71	0.58
2:H:334:MET:HG2	2:H:367:ASP:HB3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:185:PRO:HB2	2:J:188:LYS:HD3	1.84	0.58
2:J:554:ARG:HG2	2:J:554:ARG:NH1	2.18	0.58
2:N:193:THR:HG22	2:N:194:ALA:N	2.19	0.58
1:O:253:GLU:OE1	1:O:257:TRP:HB2	2.04	0.58
1:O:377:VAL:HG12	1:O:382:LEU:HD11	1.85	0.58
2:B:45:ILE:O	2:B:47:LYS:N	2.37	0.58
2:B:107:LYS:HE2	2:B:109:ILE:HD11	1.85	0.58
1:C:38:VAL:HG22	1:C:173:TYR:HD2	1.69	0.58
1:C:165:LEU:HD12	1:C:165:LEU:O	2.04	0.58
1:E:191:GLU:HG2	2:H:547:ARG:NE	2.18	0.58
2:F:221:PRO:HB2	2:F:234:PRO:HG2	1.84	0.58
2:H:290:VAL:HG22	2:H:296:SER:OG	2.04	0.58
1:I:414:GLU:CG	1:I:415:PRO:HD3	2.33	0.58
2:J:152:ARG:HD3	2:J:156:LEU:HD11	1.86	0.58
2:J:301:GLU:O	2:J:303:ALA:N	2.36	0.58
2:N:126:LEU:HD23	2:N:126:LEU:N	2.19	0.58
2:N:185:PRO:HB2	2:N:188:LYS:HD3	1.85	0.58
2:N:290:VAL:HG22	2:N:296:SER:OG	2.04	0.58
2:N:431:ILE:H	2:N:431:ILE:CD1	2.00	0.58
1:O:403:LEU:CD2	1:O:419:VAL:HG12	2.30	0.58
1:C:41:VAL:HG12	1:C:45:GLN:HE21	1.68	0.57
1:C:128:VAL:HG12	1:C:129:VAL:HG13	1.85	0.57
2:D:139:PHE:CE2	2:D:161:THR:HG21	2.38	0.57
2:F:420:GLN:HE21	2:F:431:ILE:HG12	1.68	0.57
1:G:233:GLN:OE1	1:G:495:LEU:HD13	2.04	0.57
1:I:299:THR:HG21	1:I:305:TYR:CD1	2.38	0.57
2:J:401:ARG:HD2	2:J:411:GLU:OE2	2.04	0.57
2:N:198:MET:SD	2:N:220:TYR:HE2	2.27	0.57
2:P:177:ARG:CG	2:P:178:PRO:HD2	2.33	0.57
2:P:449:VAL:HG12	2:P:450:ALA:N	2.19	0.57
1:C:298:ARG:HG2	1:C:299:THR:N	2.19	0.57
1:E:324:LEU:HB3	1:E:357:PHE:CD1	2.39	0.57
1:E:494:ARG:HD3	2:H:396:LEU:HD13	1.84	0.57
2:H:68:PRO:C	2:H:70:ASN:H	2.06	0.57
1:I:359:ASN:ND2	2:J:443:LYS:HE2	2.19	0.57
2:J:566:PRO:O	2:J:570:THR:HG23	2.04	0.57
1:K:227:LEU:CD2	1:K:461:LEU:HD12	2.34	0.57
2:N:20:THR:HB	2:N:23:GLU:H	1.69	0.57
2:N:569:ILE:HD12	2:N:574:LEU:HB2	1.84	0.57
1:A:233:GLN:O	1:A:237:ILE:HG12	2.04	0.57
1:A:414:GLU:CB	1:A:415:PRO:CD	2.80	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:529:ASP:O	2:B:531:GLY:N	2.35	0.57
1:C:449:PRO:HG2	1:C:452:VAL:HG23	1.86	0.57
2:J:192:TYR:N	2:J:192:TYR:CD1	2.72	0.57
2:J:449:VAL:HG12	2:J:450:ALA:N	2.19	0.57
2:L:535:ILE:HD12	2:L:535:ILE:N	2.14	0.57
2:N:547:ARG:HG2	2:N:547:ARG:HH11	1.68	0.57
1:O:468:LYS:HG2	1:O:495:LEU:HD23	1.86	0.57
2:P:163:ASP:OD2	2:P:248:THR:HG23	2.04	0.57
1:A:207:PHE:N	1:A:207:PHE:HD2	2.03	0.57
1:A:413:THR:HB	1:A:437:VAL:H	1.69	0.57
2:B:407:ALA:HA	1:C:221:SER:HB3	1.84	0.57
2:D:215:GLU:OE1	2:D:221:PRO:HD2	2.03	0.57
2:F:508:PHE:CD1	2:F:563:VAL:HG23	2.39	0.57
2:F:512:HIS:ND1	1:G:216:GLY:N	2.51	0.57
1:G:325:ARG:NH1	1:G:354:ASP:OD2	2.38	0.57
1:G:403:LEU:HD22	1:G:419:VAL:CG1	2.34	0.57
2:H:129:ILE:HD12	2:H:251:ILE:HD12	1.85	0.57
2:H:569:ILE:HD13	2:H:576:MET:O	2.04	0.57
2:J:67:VAL:HG13	2:J:68:PRO:HD2	1.86	0.57
2:J:207:LEU:HD21	2:J:237:ILE:HG23	1.86	0.57
1:K:350:TYR:HB2	1:K:376:VAL:HG13	1.87	0.57
2:L:45:ILE:HA	2:L:48:GLU:CG	2.31	0.57
1:M:221:SER:O	2:N:408:GLY:HA2	2.04	0.57
1:M:298:ARG:HG2	1:M:299:THR:N	2.19	0.57
2:N:188:LYS:HE2	2:N:201:TYR:OH	2.04	0.57
2:N:236:ILE:N	2:N:236:ILE:CD1	2.65	0.57
1:O:417:MET:HB3	2:P:374:TYR:CE1	2.40	0.57
1:O:477:LEU:CA	1:O:482:VAL:HG23	2.32	0.57
2:P:124:ALA:HA	2:P:287:ALA:HB2	1.84	0.57
2:P:508:PHE:CD1	2:P:563:VAL:HG23	2.39	0.57
2:B:262:LYS:O	2:B:266:VAL:HG23	2.04	0.57
2:B:341:ILE:O	2:B:341:ILE:HG22	2.03	0.57
2:B:508:PHE:HE1	2:B:562:GLY:CA	2.14	0.57
2:B:529:ASP:OD2	2:B:530:LYS:HG3	2.04	0.57
1:E:282:PRO:HD3	2:F:437:VAL:HG13	1.85	0.57
2:F:178:PRO:O	2:F:194:ALA:HB3	2.04	0.57
2:H:420:GLN:HG3	2:H:448:GLN:HE21	1.69	0.57
1:I:316:LEU:O	1:I:316:LEU:HD23	2.04	0.57
1:I:468:LYS:HB3	1:I:496:ASP:OD1	2.03	0.57
1:K:299:THR:HG21	1:K:305:TYR:CD1	2.40	0.57
2:L:415:PHE:O	2:L:451:ARG:HD3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:175:ALA:CB	2:N:219:LEU:HB3	2.33	0.57
2:N:414:THR:HG23	2:N:457:GLY:HA3	1.86	0.57
2:P:6:VAL:CG2	2:P:11:LEU:HD12	2.34	0.57
2:P:185:PRO:HB2	2:P:188:LYS:HD3	1.87	0.57
2:B:68:PRO:C	2:B:70:ASN:H	2.08	0.57
2:B:186:LEU:CD2	2:B:238:ASN:H	2.16	0.57
2:B:249:ARG:C	2:B:250:ASN:HD22	2.07	0.57
1:C:350:TYR:HB2	1:C:376:VAL:HG13	1.87	0.57
1:C:423:HIS:NE2	1:C:426:LEU:HD23	2.19	0.57
1:C:431:GLU:HG2	1:C:432:VAL:N	2.16	0.57
2:D:6:VAL:CG2	2:D:11:LEU:HD12	2.35	0.57
2:D:62:LEU:HD23	2:D:62:LEU:N	2.19	0.57
2:D:454:LEU:CD2	2:D:496:HIS:HB2	2.35	0.57
2:F:15:LEU:HA	2:F:85:GLN:HE22	1.70	0.57
2:F:139:PHE:CE2	2:F:161:THR:HG21	2.40	0.57
1:G:282:PRO:O	1:G:322:ASN:HB2	2.05	0.57
2:H:554:ARG:HG2	2:H:554:ARG:NH1	2.16	0.57
1:I:277:PHE:HD1	1:I:324:LEU:HD12	1.69	0.57
1:I:282:PRO:O	1:I:284:GLU:N	2.38	0.57
1:I:373:ILE:CD1	1:I:459:LEU:HD11	2.35	0.57
1:I:479:GLY:CA	2:J:415:PHE:CE1	2.88	0.57
2:L:133:LYS:HD2	2:L:133:LYS:N	2.19	0.57
2:L:507:GLY:HA3	2:L:510:ILE:HG22	1.87	0.57
1:M:279:LEU:CB	1:M:322:ASN:HB2	2.34	0.57
1:O:262:LEU:HD21	1:O:333:ALA:HB2	1.85	0.57
2:P:117:ILE:HD12	2:P:117:ILE:N	2.19	0.57
2:P:267:LEU:CD2	2:P:300:PRO:HB3	2.35	0.57
2:P:458:LEU:HD22	2:P:474:LEU:HB3	1.85	0.57
1:C:3:ASP:O	1:C:7:ALA:HB2	2.05	0.57
1:G:246:MET:HE1	1:G:332:SER:CA	2.35	0.57
1:G:420:PHE:CD2	1:G:431:GLU:HA	2.39	0.57
2:H:185:PRO:HB2	2:H:188:LYS:HD3	1.84	0.57
2:H:267:LEU:CD2	2:H:300:PRO:HB3	2.33	0.57
2:H:343:ASP:O	2:H:345:ASN:N	2.38	0.57
2:H:400:LEU:HD21	2:H:522:LEU:HD21	1.87	0.57
2:J:334:MET:HG2	2:J:367:ASP:HB3	1.87	0.57
1:K:266:GLN:NE2	1:K:318:GLU:HB3	2.19	0.57
1:K:412:TYR:O	1:K:438:PHE:HA	2.05	0.57
2:L:436:ALA:HB1	2:L:449:VAL:HG11	1.86	0.57
1:M:190:THR:HG21	1:M:208:LYS:HZ3	1.68	0.57
2:N:15:LEU:HA	2:N:85:GLN:HE22	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:199:ASN:HA	2:N:202:LYS:HG3	1.87	0.57
2:N:420:GLN:HE21	2:N:431:ILE:HG12	1.69	0.57
1:O:365:THR:HG23	1:O:475:ARG:CB	2.34	0.57
1:O:440:PRO:HG3	2:P:360:HIS:NE2	2.19	0.57
2:P:147:HIS:CE1	2:P:159:ILE:H	2.23	0.57
1:C:44:LEU:HB3	1:C:51:ILE:HD11	1.86	0.57
1:C:45:GLN:O	1:C:48:GLY:O	2.22	0.57
1:E:217:VAL:CG2	2:H:509:GLU:HB2	2.31	0.57
1:E:475:ARG:HG3	1:E:475:ARG:NH1	2.14	0.57
2:F:152:ARG:HD3	2:F:156:LEU:HD11	1.87	0.57
1:G:484:LEU:HG	2:H:465:ASN:ND2	2.20	0.57
1:I:260:ASP:CG	1:I:271:ARG:HH22	2.08	0.57
2:J:20:THR:HB	2:J:23:GLU:H	1.69	0.57
2:L:186:LEU:CD2	2:L:238:ASN:H	2.18	0.57
2:L:207:LEU:HD21	2:L:237:ILE:HG23	1.87	0.57
1:M:286:LEU:CG	1:M:320:ARG:HH12	2.18	0.57
2:N:310:ARG:O	2:N:311:ALA:C	2.36	0.57
2:N:385:TYR:CE1	1:O:349:LYS:HE2	2.39	0.57
2:P:431:ILE:H	2:P:431:ILE:CD1	2.03	0.57
2:B:33:LEU:HD22	2:B:67:VAL:HG22	1.87	0.57
2:B:42:LYS:HB3	2:B:58:SER:HB3	1.87	0.57
2:B:207:LEU:HD21	2:B:237:ILE:HG23	1.87	0.57
1:C:440:PRO:HG3	2:D:360:HIS:NE2	2.19	0.57
2:D:455:LEU:HB3	2:D:456:PRO:HD3	1.87	0.57
1:E:292:TYR:O	1:E:296:VAL:HG23	2.05	0.57
2:F:236:ILE:N	2:F:236:ILE:CD1	2.67	0.57
2:F:569:ILE:HD12	2:F:569:ILE:O	2.05	0.57
2:H:414:THR:HG23	2:H:457:GLY:HA3	1.87	0.57
2:J:129:ILE:HD12	2:J:251:ILE:HD12	1.87	0.57
2:L:129:ILE:HD12	2:L:251:ILE:HD12	1.85	0.57
1:M:216:GLY:O	2:P:513:GLY:HA3	2.05	0.57
2:P:20:THR:HB	2:P:23:GLU:H	1.70	0.57
2:P:71:ARG:CG	2:P:355:ARG:NH1	2.66	0.57
1:A:498:GLU:O	1:A:500:ARG:N	2.37	0.57
2:B:172:THR:O	2:B:223:ILE:HA	2.05	0.57
1:C:299:THR:HG21	1:C:305:TYR:CD1	2.40	0.57
1:C:305:TYR:HB3	1:C:444:LEU:HD12	1.87	0.57
2:D:71:ARG:CG	2:D:355:ARG:NH1	2.68	0.57
2:D:90:ARG:HB3	2:D:90:ARG:NH1	2.20	0.57
1:E:449:PRO:HG2	1:E:452:VAL:HG23	1.86	0.57
2:F:533:TYR:HA	2:F:552:PHE:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:124:ALA:CB	2:H:300:PRO:HD3	2.34	0.57
2:H:181:ILE:HD11	2:H:194:ALA:HB2	1.87	0.57
2:H:436:ALA:HB1	2:H:449:VAL:CG1	2.35	0.57
2:H:515:LEU:HD23	2:H:515:LEU:C	2.25	0.57
2:J:391:PHE:HD2	2:J:392:PRO:CD	2.17	0.57
2:L:414:THR:HG23	2:L:457:GLY:HA3	1.86	0.57
2:P:179:SER:N	2:P:195:CYS:HB2	2.19	0.57
2:P:381:LEU:CD2	2:P:382:PRO:HD2	2.24	0.57
2:P:436:ALA:HB1	2:P:449:VAL:HG11	1.86	0.57
2:P:508:PHE:HE1	2:P:562:GLY:CA	2.14	0.57
2:B:128:ASN:H	2:B:250:ASN:ND2	2.03	0.56
2:B:152:ARG:HD3	2:B:156:LEU:HD11	1.86	0.56
2:B:334:MET:HG2	2:B:367:ASP:HB3	1.87	0.56
1:E:466:MET:HE2	1:E:466:MET:HA	1.87	0.56
2:F:20:THR:HB	2:F:23:GLU:H	1.70	0.56
2:J:71:ARG:NH2	2:J:366:GLU:OE2	2.35	0.56
2:J:142:LEU:O	2:J:142:LEU:HD23	2.05	0.56
1:M:440:PRO:HG3	2:N:360:HIS:NE2	2.19	0.56
2:N:308:MET:SD	2:N:346:GLN:CG	2.93	0.56
2:N:517:ARG:HG3	2:N:521:LEU:HD23	1.87	0.56
1:O:316:LEU:O	1:O:316:LEU:HD23	2.05	0.56
2:P:334:MET:HG2	2:P:367:ASP:HB3	1.86	0.56
1:A:226:PRO:HG2	1:A:486:MET:CE	2.35	0.56
1:A:326:THR:C	1:A:356:VAL:HG11	2.26	0.56
1:C:279:LEU:HD12	1:C:322:ASN:HB3	1.86	0.56
2:D:221:PRO:HB2	2:D:234:PRO:HG2	1.87	0.56
2:F:68:PRO:C	2:F:70:ASN:H	2.09	0.56
2:F:186:LEU:CD2	2:F:238:ASN:H	2.18	0.56
1:G:192:LEU:HD23	1:G:193:SER:N	2.20	0.56
1:G:350:TYR:HB2	1:G:376:VAL:HG13	1.87	0.56
1:G:466:MET:HG2	1:G:474:ILE:HB	1.87	0.56
2:H:192:TYR:N	2:H:192:TYR:CD1	2.73	0.56
1:K:397:LYS:O	1:K:495:LEU:HD13	2.05	0.56
2:L:381:LEU:CD2	2:L:382:PRO:HD2	2.30	0.56
1:M:417:MET:HB3	2:N:374:TYR:CE1	2.41	0.56
1:A:468:LYS:O	1:A:469:TYR:HB2	2.05	0.56
2:B:133:LYS:HD2	2:B:133:LYS:N	2.15	0.56
1:C:37:VAL:HG13	1:C:38:VAL:H	1.69	0.56
1:C:414:GLU:CB	1:C:415:PRO:CD	2.81	0.56
2:D:157:VAL:HG11	2:D:266:VAL:HG21	1.87	0.56
2:D:267:LEU:CD2	2:D:300:PRO:HB3	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:360:HIS:CD2	2:D:362:CYS:H	2.23	0.56
2:D:414:THR:HG23	2:D:457:GLY:HA3	1.86	0.56
1:E:316:LEU:HD23	1:E:316:LEU:O	2.05	0.56
2:F:420:GLN:NE2	2:F:431:ILE:HG21	2.20	0.56
2:F:511:ILE:HG22	2:F:561:LEU:HD21	1.88	0.56
2:F:515:LEU:HD23	2:F:515:LEU:C	2.26	0.56
2:F:547:ARG:HH11	2:F:547:ARG:HG2	1.69	0.56
1:G:236:GLN:O	1:G:240:GLU:HG3	2.06	0.56
2:H:122:VAL:HG21	2:H:299:PHE:CD2	2.39	0.56
2:H:454:LEU:HD21	2:H:496:HIS:HB2	1.86	0.56
2:H:533:TYR:H	2:H:533:TYR:HD2	1.52	0.56
2:H:569:ILE:HD12	2:H:574:LEU:HB2	1.85	0.56
2:J:33:LEU:HD22	2:J:67:VAL:HG22	1.87	0.56
2:J:131:PHE:CE2	2:J:136:TYR:HA	2.40	0.56
2:J:177:ARG:HG2	2:J:178:PRO:HD2	1.85	0.56
2:J:436:ALA:HB1	2:J:449:VAL:CG1	2.34	0.56
1:K:236:GLN:O	1:K:240:GLU:HG3	2.04	0.56
1:K:364:ALA:O	1:K:475:ARG:NE	2.37	0.56
1:M:475:ARG:HH11	1:M:475:ARG:HG3	1.71	0.56
2:N:124:ALA:CB	2:N:300:PRO:HD3	2.35	0.56
2:N:128:ASN:H	2:N:250:ASN:ND2	2.03	0.56
2:N:264:LYS:HD2	2:N:301:GLU:CD	2.26	0.56
2:N:505:ASN:HB2	1:O:191:GLU:CD	2.26	0.56
2:N:575:THR:O	1:O:197:ILE:HG21	2.04	0.56
1:O:425:GLY:O	1:O:426:LEU:HG	2.05	0.56
2:P:52:VAL:HG23	2:P:52:VAL:O	2.04	0.56
2:P:515:LEU:O	2:P:515:LEU:HD23	2.05	0.56
2:D:172:THR:O	2:D:223:ILE:HA	2.06	0.56
1:E:287:GLN:OE1	1:E:320:ARG:NH1	2.38	0.56
1:E:350:TYR:HB2	1:E:376:VAL:HG13	1.86	0.56
2:F:234:PRO:HB2	2:F:235:PRO:CD	2.19	0.56
1:I:468:LYS:O	1:I:469:TYR:CD1	2.57	0.56
1:I:477:LEU:HD12	1:I:478:VAL:CG2	2.36	0.56
2:J:515:LEU:HD23	2:J:515:LEU:C	2.25	0.56
2:J:515:LEU:HD23	2:J:515:LEU:O	2.04	0.56
1:K:253:GLU:OE1	1:K:257:TRP:HB2	2.06	0.56
1:M:286:LEU:CD1	1:M:320:ARG:HH12	2.18	0.56
1:M:367:LEU:HD23	1:M:474:ILE:HG22	1.87	0.56
2:N:124:ALA:HA	2:N:287:ALA:HB2	1.87	0.56
2:N:301:GLU:O	2:N:303:ALA:N	2.38	0.56
2:N:508:PHE:CD1	2:N:563:VAL:HG23	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:215:GLU:OE1	2:P:221:PRO:HD2	2.05	0.56
2:P:236:ILE:N	2:P:236:ILE:CD1	2.68	0.56
1:A:353:ILE:HG23	1:A:373:ILE:HG22	1.88	0.56
2:B:503:ASN:ND2	2:B:504:LYS:H	2.04	0.56
1:C:480:HIS:CD2	1:C:480:HIS:N	2.72	0.56
1:E:360:GLU:HG3	1:E:361:THR:N	2.20	0.56
2:J:186:LEU:HD23	2:J:237:ILE:HG22	1.86	0.56
1:K:479:GLY:HA3	2:L:415:PHE:HE1	1.70	0.56
2:L:360:HIS:CD2	2:L:362:CYS:H	2.23	0.56
2:L:426:LYS:O	2:L:568:VAL:HG12	2.05	0.56
1:M:267:GLN:CA	2:N:152:ARG:HD2	2.35	0.56
2:N:107:LYS:HE2	2:N:109:ILE:HD11	1.85	0.56
2:N:444:THR:HG22	2:N:447:PHE:CD1	2.41	0.56
2:P:391:PHE:HD2	2:P:392:PRO:CD	2.17	0.56
1:A:205:ARG:N	1:A:206:PRO:HD2	2.21	0.56
1:A:406:LYS:HD2	2:B:29:PHE:CD1	2.40	0.56
2:D:569:ILE:HD12	2:D:569:ILE:O	2.06	0.56
1:E:325:ARG:NH2	1:E:356:VAL:HG13	2.20	0.56
2:F:172:THR:O	2:F:223:ILE:HA	2.05	0.56
1:G:299:THR:HG21	1:G:305:TYR:CD1	2.41	0.56
2:H:454:LEU:CD2	2:H:496:HIS:HB2	2.35	0.56
1:I:414:GLU:HB2	1:I:415:PRO:CD	2.22	0.56
1:K:279:LEU:HD23	1:K:279:LEU:H	1.69	0.56
2:L:357:ASP:OD1	2:L:358:ILE:HD12	2.06	0.56
2:L:400:LEU:HD21	2:L:522:LEU:HD21	1.87	0.56
2:L:455:LEU:HB3	2:L:456:PRO:HD3	1.88	0.56
1:M:426:LEU:HB3	1:M:428:LYS:HG2	1.88	0.56
2:N:6:VAL:HG21	2:N:11:LEU:HD12	1.86	0.56
2:N:117:ILE:HD12	2:N:117:ILE:N	2.20	0.56
2:P:189:THR:HG23	2:P:190:LYS:H	1.70	0.56
2:P:268:ASP:O	2:P:272:THR:HG22	2.05	0.56
1:A:247:PRO:HB3	2:B:391:PHE:CE1	2.40	0.56
2:D:189:THR:HG23	2:D:190:LYS:H	1.70	0.56
2:D:451:ARG:HH22	2:D:478:SER:HB3	1.71	0.56
1:E:296:VAL:O	1:E:300:HIS:HB2	2.05	0.56
2:H:85:GLN:HB3	2:H:91:ILE:HG21	1.88	0.56
2:J:193:THR:HG22	2:J:194:ALA:N	2.21	0.56
1:K:296:VAL:O	1:K:300:HIS:HB2	2.05	0.56
1:K:413:THR:HB	1:K:437:VAL:H	1.71	0.56
1:K:437:VAL:HG13	1:K:455:ILE:HG22	1.88	0.56
2:L:172:THR:O	2:L:223:ILE:HA	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:175:ALA:CB	2:L:219:LEU:HB3	2.32	0.56
2:L:301:GLU:O	2:L:301:GLU:HG3	2.06	0.56
2:L:444:THR:HG22	2:L:447:PHE:CD1	2.41	0.56
2:L:498:CYS:HB2	2:L:582:GLU:HG3	1.88	0.56
2:P:547:ARG:HG2	2:P:547:ARG:HH11	1.71	0.56
2:D:517:ARG:HG3	2:D:521:LEU:HD23	1.88	0.56
2:D:547:ARG:HG2	2:D:547:ARG:HH11	1.71	0.56
1:E:373:ILE:CD1	1:E:459:LEU:HD11	2.36	0.56
1:I:417:MET:HB3	2:J:374:TYR:HE1	1.70	0.56
1:K:438:PHE:CD1	1:K:454:VAL:HG22	2.41	0.56
2:L:357:ASP:O	2:L:359:ILE:HG23	2.05	0.56
1:O:285:ALA:HB2	1:O:322:ASN:OD1	2.05	0.56
2:P:188:LYS:HE2	2:P:201:TYR:OH	2.05	0.56
2:P:444:THR:HG22	2:P:447:PHE:CD1	2.41	0.56
1:A:484:LEU:HG	2:B:465:ASN:ND2	2.21	0.56
2:B:449:VAL:HG12	2:B:450:ALA:N	2.20	0.56
2:B:569:ILE:HD13	2:B:576:MET:O	2.05	0.56
1:C:78:ALA:O	1:C:82:ARG:HG3	2.06	0.56
1:C:80:VAL:CG2	1:C:94:LEU:HD11	2.35	0.56
1:E:288:LEU:CD1	1:E:293:VAL:HG21	2.35	0.56
1:E:413:THR:HB	1:E:437:VAL:H	1.70	0.56
2:H:132:THR:HG22	2:H:135:ARG:H	1.70	0.56
2:J:414:THR:HG23	2:J:457:GLY:HA3	1.87	0.56
2:L:38:ILE:HD13	2:L:63:TYR:HE1	1.71	0.56
1:M:353:ILE:HG12	1:M:373:ILE:HB	1.87	0.56
2:N:77:LEU:HD23	2:N:77:LEU:C	2.27	0.56
1:A:274:HIS:O	1:A:275:ASP:HB2	2.05	0.56
2:B:561:LEU:HD23	2:B:562:GLY:N	2.21	0.56
1:C:360:GLU:OE1	1:C:362:LEU:HD23	2.05	0.56
2:D:470:LEU:HB2	2:D:471:PRO:CD	2.36	0.56
2:F:326:ASN:O	2:F:330:LEU:HD23	2.06	0.56
2:F:426:LYS:O	2:F:568:VAL:HG12	2.05	0.56
2:F:566:PRO:HB3	1:G:197:ILE:HG12	1.87	0.56
2:H:514:LEU:HD23	2:H:581:LEU:HD23	1.86	0.56
1:I:412:TYR:O	1:I:438:PHE:HA	2.05	0.56
2:J:281:GLN:HG2	2:J:282:PHE:CD1	2.41	0.56
1:K:417:MET:HB3	2:L:374:TYR:HE1	1.71	0.56
2:N:531:GLY:O	2:N:532:GLY:O	2.24	0.56
2:P:42:LYS:HG3	2:P:43:GLU:N	2.20	0.56
2:P:172:THR:O	2:P:223:ILE:HA	2.06	0.56
2:P:186:LEU:HD23	2:P:237:ILE:HG22	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:360:HIS:CD2	2:B:362:CYS:H	2.23	0.55
2:B:497:LEU:HD23	2:B:497:LEU:C	2.25	0.55
1:C:40:ALA:O	1:C:43:SER:N	2.39	0.55
2:D:179:SER:N	2:D:195:CYS:HB2	2.22	0.55
2:D:249:ARG:C	2:D:250:ASN:HD22	2.08	0.55
2:D:436:ALA:HB1	2:D:449:VAL:HG11	1.87	0.55
1:E:267:GLN:HB3	2:F:152:ARG:CD	2.31	0.55
1:E:349:LYS:HG2	1:E:377:VAL:HG22	1.87	0.55
1:I:267:GLN:CB	2:J:152:ARG:HD2	2.36	0.55
1:I:417:MET:HB3	2:J:374:TYR:CE1	2.41	0.55
2:J:262:LYS:O	2:J:266:VAL:HG23	2.06	0.55
2:L:517:ARG:HG3	2:L:521:LEU:HD23	1.87	0.55
2:N:400:LEU:HD21	2:N:522:LEU:HD21	1.88	0.55
2:P:343:ASP:O	2:P:345:ASN:N	2.40	0.55
1:A:298:ARG:HG2	1:A:299:THR:N	2.21	0.55
1:A:298:ARG:HG3	1:A:298:ARG:NH1	2.21	0.55
2:B:188:LYS:HE2	2:B:201:TYR:OH	2.05	0.55
2:B:436:ALA:HB1	2:B:449:VAL:CG1	2.36	0.55
1:G:355:ARG:HG2	1:G:357:PHE:CE1	2.41	0.55
1:G:420:PHE:CE1	2:H:29:PHE:HE1	2.24	0.55
2:H:6:VAL:CG2	2:H:11:LEU:HD12	2.36	0.55
2:H:215:GLU:OE1	2:H:221:PRO:HD2	2.04	0.55
2:H:236:ILE:N	2:H:236:ILE:CD1	2.69	0.55
2:J:569:ILE:HD12	2:J:569:ILE:O	2.05	0.55
1:K:438:PHE:HD1	1:K:454:VAL:HG22	1.71	0.55
2:L:193:THR:HG22	2:L:194:ALA:N	2.20	0.55
2:L:268:ASP:O	2:L:272:THR:HG22	2.06	0.55
1:M:413:THR:HB	1:M:437:VAL:H	1.71	0.55
1:O:424:GLN:O	1:O:426:LEU:N	2.39	0.55
2:P:49:GLN:O	2:P:51:ASN:N	2.39	0.55
2:P:90:ARG:NH1	2:P:90:ARG:HB3	2.21	0.55
2:P:305:ARG:NH1	2:P:358:ILE:O	2.35	0.55
1:A:246:MET:HE1	1:A:332:SER:CA	2.37	0.55
1:C:151:LEU:H	1:C:151:LEU:CD2	2.18	0.55
1:C:197:ILE:H	1:C:197:ILE:HD12	1.71	0.55
1:C:417:MET:HB3	2:D:374:TYR:CE1	2.39	0.55
2:D:381:LEU:CD2	2:D:382:PRO:HD2	2.28	0.55
2:F:142:LEU:HD23	2:F:142:LEU:C	2.27	0.55
2:H:221:PRO:HB2	2:H:234:PRO:HG2	1.89	0.55
1:I:223:HIS:HB2	2:J:410:THR:HG23	1.88	0.55
1:I:233:GLN:O	1:I:237:ILE:HG12	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:91:ILE:HG12	2:J:92:LYS:N	2.19	0.55
2:J:547:ARG:NH2	1:K:210:TYR:HB2	2.21	0.55
2:J:576:MET:H	2:J:576:MET:HE2	1.71	0.55
2:L:6:VAL:HG21	2:L:11:LEU:HD12	1.88	0.55
2:L:262:LYS:O	2:L:266:VAL:HG23	2.06	0.55
2:N:221:PRO:HB2	2:N:234:PRO:HG2	1.88	0.55
2:N:458:LEU:HD22	2:N:474:LEU:HB3	1.89	0.55
1:O:298:ARG:HG2	1:O:299:THR:N	2.22	0.55
2:B:45:ILE:C	2:B:47:LYS:H	2.08	0.55
2:B:62:LEU:N	2:B:62:LEU:HD23	2.22	0.55
2:B:515:LEU:HD11	2:B:551:ILE:HG21	1.88	0.55
1:C:58:THR:O	1:C:169:THR:HA	2.07	0.55
1:C:177:LYS:HG2	1:C:181:PHE:CD1	2.42	0.55
1:C:193:SER:O	1:C:197:ILE:HD12	2.05	0.55
2:D:554:ARG:HG2	2:D:554:ARG:NH1	2.19	0.55
1:E:362:LEU:HD21	1:E:475:ARG:HH22	1.72	0.55
2:F:215:GLU:OE1	2:F:221:PRO:HD2	2.06	0.55
2:F:554:ARG:HG2	2:F:554:ARG:NH1	2.21	0.55
1:G:465:THR:O	1:G:469:TYR:HB2	2.05	0.55
2:H:508:PHE:CD1	2:H:563:VAL:HG23	2.42	0.55
1:I:395:PHE:CE2	1:I:432:VAL:HG12	2.42	0.55
2:J:122:VAL:CG2	2:J:299:PHE:CD2	2.89	0.55
1:K:358:ARG:HH11	1:K:358:ARG:HG3	1.72	0.55
2:L:249:ARG:C	2:L:250:ASN:HD22	2.09	0.55
2:L:470:LEU:HB2	2:L:471:PRO:CD	2.36	0.55
2:N:249:ARG:C	2:N:250:ASN:HD22	2.10	0.55
2:P:62:LEU:HD23	2:P:62:LEU:H	1.71	0.55
2:P:304:TYR:CE1	2:P:353:PRO:HD3	2.42	0.55
2:P:436:ALA:HB1	2:P:449:VAL:CG1	2.36	0.55
1:A:360:GLU:O	1:A:361:THR:HG23	2.06	0.55
2:B:236:ILE:N	2:B:236:ILE:CD1	2.70	0.55
1:C:189:GLU:HB3	1:C:206:PRO:O	2.07	0.55
1:C:422:TYR:OH	1:C:427:LYS:HG3	2.06	0.55
2:D:199:ASN:HA	2:D:202:LYS:HG3	1.88	0.55
2:D:508:PHE:CD1	2:D:563:VAL:HG23	2.42	0.55
2:F:387:ILE:HG13	1:G:393:GLU:HG2	1.89	0.55
2:H:301:GLU:O	2:H:301:GLU:HG3	2.07	0.55
2:J:236:ILE:N	2:J:236:ILE:CD1	2.70	0.55
2:J:519:MET:HE1	2:J:522:LEU:HD12	1.88	0.55
1:M:196:MET:HA	1:M:201:SER:HB3	1.88	0.55
2:P:454:LEU:CD2	2:P:496:HIS:HB2	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:470:LEU:HB2	2:P:471:PRO:CD	2.37	0.55
1:C:266:GLN:HB2	1:C:312:TYR:CE2	2.41	0.55
2:F:331:LEU:HD21	2:F:368:ALA:HB2	1.89	0.55
2:H:199:ASN:HA	2:H:202:LYS:HG3	1.88	0.55
2:H:268:ASP:O	2:H:272:THR:HG22	2.07	0.55
2:J:244:ILE:H	2:J:244:ILE:HD12	1.69	0.55
2:N:122:VAL:HG23	2:N:299:PHE:CG	2.42	0.55
2:N:192:TYR:N	2:N:192:TYR:CD1	2.75	0.55
1:O:268:HIS:ND1	1:O:270:ALA:HB3	2.21	0.55
1:A:492:LEU:HD22	2:D:399:LEU:HB3	1.88	0.55
2:B:39:THR:O	2:B:62:LEU:HD23	2.06	0.55
1:C:236:GLN:O	1:C:240:GLU:HG3	2.07	0.55
2:D:147:HIS:CE1	2:D:159:ILE:H	2.24	0.55
2:D:193:THR:HG22	2:D:194:ALA:N	2.22	0.55
2:F:124:ALA:HA	2:F:287:ALA:CB	2.37	0.55
2:F:215:GLU:O	2:F:216:ASN:HB3	2.07	0.55
2:F:462:ILE:HG23	2:F:472:LEU:CD1	2.26	0.55
1:G:366:HIS:CD2	1:G:473:ASN:HD21	2.24	0.55
1:I:188:GLN:HA	1:I:206:PRO:O	2.06	0.55
1:K:420:PHE:HD2	1:K:431:GLU:HA	1.71	0.55
2:L:221:PRO:HB2	2:L:234:PRO:HG2	1.89	0.55
2:N:324:PRO:HG3	2:N:344:GLY:O	2.07	0.55
2:N:357:ASP:OD1	2:N:358:ILE:HD12	2.07	0.55
2:N:449:VAL:HG12	2:N:450:ALA:N	2.21	0.55
1:O:373:ILE:HD13	1:O:459:LEU:HD11	1.88	0.55
2:B:509:GLU:O	1:C:217:VAL:HG23	2.07	0.55
2:B:515:LEU:HD23	2:B:515:LEU:C	2.27	0.55
1:C:64:THR:CG2	1:C:65:ALA:N	2.69	0.55
1:C:124:ARG:HD3	1:C:126:PHE:CZ	2.41	0.55
2:D:449:VAL:HG12	2:D:450:ALA:N	2.21	0.55
2:F:91:ILE:HG12	2:F:92:LYS:N	2.22	0.55
2:F:181:ILE:HD11	2:F:194:ALA:HB2	1.89	0.55
2:F:343:ASP:O	2:F:345:ASN:N	2.40	0.55
2:H:207:LEU:HD21	2:H:237:ILE:HG23	1.87	0.55
1:K:211:ASN:ND2	1:K:211:ASN:H	2.05	0.55
2:L:179:SER:N	2:L:195:CYS:HB2	2.22	0.55
2:L:454:LEU:CD2	2:L:496:HIS:HB2	2.36	0.55
2:N:27:LEU:HD12	2:N:84:LEU:HD13	1.89	0.55
2:N:514:LEU:HD23	2:N:581:LEU:HD23	1.89	0.55
2:N:565:HIS:CD2	2:N:567:ASP:HB2	2.42	0.55
2:P:41:GLU:CB	2:P:58:SER:HA	2.34	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:157:VAL:HG11	2:P:266:VAL:HG21	1.89	0.55
2:P:199:ASN:HA	2:P:202:LYS:HG3	1.89	0.55
2:P:401:ARG:HD2	2:P:411:GLU:OE2	2.06	0.55
2:P:462:ILE:HG23	2:P:472:LEU:CD1	2.30	0.55
2:D:124:ALA:HA	2:D:287:ALA:CB	2.36	0.55
2:D:167:LEU:HD13	2:D:171:PHE:CE2	2.41	0.55
2:D:343:ASP:O	2:D:345:ASN:N	2.40	0.55
2:F:185:PRO:HB2	2:F:188:LYS:HD3	1.89	0.55
2:F:458:LEU:HD22	2:F:474:LEU:HB3	1.87	0.55
2:H:128:ASN:H	2:H:250:ASN:ND2	2.04	0.55
2:H:547:ARG:HG2	2:H:547:ARG:HH11	1.72	0.55
1:I:266:GLN:HG2	1:I:271:ARG:NH1	2.22	0.55
1:I:298:ARG:HG2	1:I:299:THR:N	2.21	0.55
2:J:199:ASN:HA	2:J:202:LYS:HG3	1.88	0.55
2:L:61:VAL:HG12	2:L:62:LEU:N	2.21	0.55
2:L:271:VAL:HG22	2:L:284:VAL:CG2	2.36	0.55
1:M:233:GLN:O	1:M:237:ILE:HG12	2.07	0.55
2:N:455:LEU:HB3	2:N:456:PRO:HD3	1.89	0.55
2:P:133:LYS:HD2	2:P:133:LYS:N	2.17	0.55
2:P:271:VAL:HG22	2:P:284:VAL:CG2	2.35	0.55
1:A:280:ARG:HH11	1:A:280:ARG:HG3	1.71	0.55
2:D:85:GLN:HB3	2:D:91:ILE:HG21	1.88	0.55
2:D:305:ARG:NH1	2:D:358:ILE:O	2.40	0.55
2:D:515:LEU:HD11	2:D:551:ILE:HG21	1.87	0.55
2:F:53:LYS:C	2:F:55:ALA:H	2.11	0.55
2:H:142:LEU:O	2:H:142:LEU:HD23	2.07	0.55
2:J:271:VAL:HG22	2:J:284:VAL:CG2	2.36	0.55
2:L:569:ILE:HD12	2:L:569:ILE:O	2.06	0.55
1:M:271:ARG:HG2	1:M:271:ARG:HH11	1.72	0.55
2:N:207:LEU:HD21	2:N:237:ILE:HG23	1.87	0.55
2:N:515:LEU:C	2:N:515:LEU:HD23	2.27	0.55
2:B:193:THR:HG22	2:B:194:ALA:N	2.22	0.54
2:H:193:THR:HG22	2:H:194:ALA:N	2.22	0.54
2:J:565:HIS:CD2	2:J:567:ASP:HB2	2.42	0.54
1:M:373:ILE:CD1	1:M:459:LEU:HD11	2.37	0.54
2:N:179:SER:N	2:N:195:CYS:HB2	2.21	0.54
2:P:221:PRO:HB2	2:P:234:PRO:HG2	1.88	0.54
2:B:351:ILE:N	2:B:351:ILE:HD12	2.23	0.54
2:B:458:LEU:HD22	2:B:474:LEU:HB3	1.89	0.54
1:C:37:VAL:CG1	1:C:38:VAL:N	2.68	0.54
1:C:268:HIS:HD2	1:C:270:ALA:HB3	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:128:ASN:H	2:D:250:ASN:ND2	2.04	0.54
2:D:142:LEU:HD23	2:D:142:LEU:C	2.28	0.54
2:F:519:MET:HE1	2:F:522:LEU:HD12	1.88	0.54
1:I:414:GLU:CB	1:I:415:PRO:CD	2.79	0.54
2:J:215:GLU:OE1	2:J:221:PRO:HD2	2.07	0.54
1:K:298:ARG:HG2	1:K:299:THR:N	2.21	0.54
2:L:199:ASN:HA	2:L:202:LYS:HG3	1.89	0.54
2:L:470:LEU:HB2	2:L:471:PRO:HD3	1.90	0.54
2:L:515:LEU:O	2:L:515:LEU:HD23	2.06	0.54
2:N:350:GLU:O	2:N:352:PRO:HD3	2.08	0.54
2:N:360:HIS:CD2	2:N:362:CYS:H	2.26	0.54
2:N:426:LYS:O	2:N:568:VAL:HG12	2.06	0.54
2:N:515:LEU:HD23	2:N:515:LEU:O	2.07	0.54
2:P:128:ASN:H	2:P:250:ASN:ND2	2.04	0.54
1:A:363:ASP:HB3	1:A:366:HIS:O	2.08	0.54
1:A:408:ALA:HB2	1:A:418:GLU:CG	2.36	0.54
1:A:427:LYS:HG2	1:A:427:LYS:O	2.06	0.54
1:C:296:VAL:O	1:C:300:HIS:HB2	2.06	0.54
1:C:359:ASN:OD1	2:D:443:LYS:HE2	2.07	0.54
1:C:414:GLU:CG	1:C:415:PRO:HD3	2.37	0.54
2:D:192:TYR:N	2:D:192:TYR:CD1	2.75	0.54
2:D:334:MET:HG2	2:D:367:ASP:HB3	1.90	0.54
2:D:436:ALA:HB1	2:D:449:VAL:CG1	2.37	0.54
2:F:193:THR:HG22	2:F:194:ALA:N	2.22	0.54
2:F:566:PRO:CB	1:G:197:ILE:HG23	2.33	0.54
1:G:414:GLU:HB2	1:G:415:PRO:CD	2.30	0.54
2:H:186:LEU:HD23	2:H:237:ILE:HG22	1.89	0.54
1:I:212:PHE:HE1	2:L:537:ALA:HA	1.72	0.54
1:K:210:TYR:O	1:K:212:PHE:HD1	1.90	0.54
2:L:117:ILE:HD12	2:L:117:ILE:N	2.22	0.54
1:M:268:HIS:HD2	1:M:271:ARG:HB2	1.72	0.54
1:M:316:LEU:HD23	1:M:316:LEU:O	2.07	0.54
2:N:244:ILE:H	2:N:244:ILE:HD12	1.73	0.54
2:N:262:LYS:O	2:N:266:VAL:HG23	2.06	0.54
1:A:413:THR:CG2	3:A:509:PHE:HZ	2.18	0.54
1:C:50:VAL:CA	1:C:180:ALA:HB3	2.37	0.54
1:C:403:LEU:HD22	1:C:419:VAL:HG22	1.90	0.54
2:D:535:ILE:HD12	2:D:535:ILE:N	2.17	0.54
1:E:246:MET:HE1	1:E:332:SER:CA	2.38	0.54
2:F:6:VAL:HG21	2:F:11:LEU:HD12	1.89	0.54
1:G:391:LEU:HD13	1:G:419:VAL:HG21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:124:ALA:HA	2:H:287:ALA:CB	2.38	0.54
2:H:163:ASP:OD2	2:H:248:THR:HG23	2.07	0.54
2:H:360:HIS:CD2	2:H:362:CYS:H	2.25	0.54
1:K:223:HIS:HB2	2:L:410:THR:HG23	1.89	0.54
1:K:424:GLN:O	1:K:424:GLN:HG2	2.07	0.54
2:L:162:HIS:CD2	2:L:231:LEU:HD12	2.42	0.54
2:L:436:ALA:HB1	2:L:449:VAL:CG1	2.36	0.54
2:L:451:ARG:HH22	2:L:478:SER:HB3	1.72	0.54
2:N:122:VAL:CG2	2:N:299:PHE:CD2	2.90	0.54
2:P:152:ARG:HD3	2:P:156:LEU:HD11	1.90	0.54
2:P:235:PRO:HB2	2:P:236:ILE:HD12	1.89	0.54
1:A:343:LYS:CB	1:A:344:PRO:CD	2.81	0.54
2:B:271:VAL:HG22	2:B:284:VAL:CG2	2.36	0.54
1:C:1:MET:HA	1:C:5:GLN:CB	2.37	0.54
1:C:373:ILE:CD1	1:C:459:LEU:HD11	2.37	0.54
2:D:117:ILE:HD12	2:D:117:ILE:N	2.22	0.54
2:D:185:PRO:HB2	2:D:188:LYS:HD3	1.88	0.54
2:D:566:PRO:O	2:D:570:THR:HG23	2.06	0.54
1:E:279:LEU:HD22	1:E:282:PRO:HD2	1.88	0.54
1:G:296:VAL:O	1:G:300:HIS:HB2	2.08	0.54
2:J:189:THR:HG23	2:J:190:LYS:H	1.73	0.54
1:K:211:ASN:HB2	1:K:213:LEU:HD13	1.88	0.54
1:K:211:ASN:N	1:K:211:ASN:ND2	2.56	0.54
1:K:359:ASN:HD21	2:L:443:LYS:HD2	1.72	0.54
2:L:267:LEU:CD2	2:L:300:PRO:HB3	2.38	0.54
2:L:511:ILE:HG22	2:L:561:LEU:HD21	1.90	0.54
2:N:108:LEU:HD21	2:N:173:TYR:HB2	1.88	0.54
2:B:169:GLY:HA3	2:B:226:SER:CB	2.37	0.54
2:B:215:GLU:O	2:B:216:ASN:HB3	2.08	0.54
2:B:343:ASP:O	2:B:345:ASN:N	2.41	0.54
1:C:268:HIS:CD2	1:C:270:ALA:HB3	2.43	0.54
1:C:281:ASP:O	1:C:283:ALA:N	2.34	0.54
2:D:268:ASP:O	2:D:272:THR:HG22	2.07	0.54
2:D:351:ILE:HD12	2:D:351:ILE:N	2.22	0.54
1:E:196:MET:HA	1:E:201:SER:HB3	1.88	0.54
2:F:57:ALA:C	2:F:59:ASP:H	2.10	0.54
1:G:279:LEU:HD11	1:G:322:ASN:HB2	1.89	0.54
1:G:475:ARG:HH11	1:G:475:ARG:HG3	1.71	0.54
2:H:462:ILE:HG23	2:H:472:LEU:CD1	2.27	0.54
2:J:532:GLY:O	2:J:553:ALA:HA	2.07	0.54
1:K:11:LEU:O	1:K:13:ARG:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:235:ARG:NH2	2:N:390:GLN:OE1	2.38	0.54
1:M:362:LEU:HD21	2:N:447:PHE:CZ	2.40	0.54
2:P:126:LEU:HD23	2:P:126:LEU:N	2.20	0.54
2:P:512:HIS:HA	2:P:561:LEU:HD11	1.88	0.54
2:B:90:ARG:HB3	2:B:90:ARG:HH11	1.71	0.54
2:B:132:THR:HG22	2:B:134:ASP:N	2.23	0.54
2:B:387:ILE:HD12	1:C:241:MET:HG2	1.90	0.54
1:C:40:ALA:O	1:C:42:LYS:N	2.40	0.54
2:D:181:ILE:HD11	2:D:194:ALA:HB2	1.89	0.54
2:D:185:PRO:HG2	2:D:188:LYS:CB	2.37	0.54
2:D:454:LEU:HD21	2:D:496:HIS:HB2	1.89	0.54
1:E:233:GLN:O	1:E:237:ILE:HG12	2.08	0.54
2:F:117:ILE:HD12	2:F:117:ILE:N	2.22	0.54
1:G:235:ARG:NH2	2:H:390:GLN:OE1	2.36	0.54
2:H:139:PHE:CE2	2:H:161:THR:HG21	2.42	0.54
2:J:124:ALA:HA	2:J:287:ALA:HB2	1.89	0.54
2:J:299:PHE:HB3	2:J:300:PRO:HA	1.90	0.54
1:K:213:LEU:HD13	1:K:213:LEU:H	1.72	0.54
1:K:414:GLU:CB	1:K:415:PRO:CD	2.82	0.54
2:L:147:HIS:CE1	2:L:159:ILE:H	2.25	0.54
2:L:334:MET:HG2	2:L:367:ASP:HB3	1.89	0.54
2:L:515:LEU:HD23	2:L:515:LEU:C	2.27	0.54
2:N:515:LEU:HD11	2:N:551:ILE:HG21	1.90	0.54
2:P:45:ILE:HG22	2:P:49:GLN:HB2	1.89	0.54
2:P:470:LEU:HB2	2:P:471:PRO:HD3	1.89	0.54
2:B:147:HIS:CE1	2:B:159:ILE:HG12	2.43	0.54
1:E:358:ARG:HG2	1:E:368:ALA:HA	1.90	0.54
2:F:115:ALA:O	2:F:116:LYS:HG3	2.07	0.54
2:F:569:ILE:HD13	2:F:576:MET:O	2.08	0.54
1:G:292:TYR:O	1:G:296:VAL:HG23	2.08	0.54
1:G:298:ARG:HG3	1:G:298:ARG:NH1	2.22	0.54
2:L:343:ASP:O	2:L:345:ASN:N	2.41	0.54
2:L:391:PHE:HD2	2:L:392:PRO:CD	2.19	0.54
2:N:343:ASP:O	2:N:345:ASN:N	2.41	0.54
2:N:420:GLN:NE2	2:N:431:ILE:HG21	2.23	0.54
2:P:193:THR:HG22	2:P:194:ALA:N	2.23	0.54
1:A:213:LEU:O	1:A:213:LEU:HD13	2.08	0.54
1:A:422:TYR:CE2	1:A:428:LYS:HA	2.42	0.54
2:B:117:ILE:N	2:B:117:ILE:HD12	2.23	0.54
2:B:554:ARG:HG2	2:B:554:ARG:NH1	2.18	0.54
1:C:271:ARG:HA	1:C:276:THR:HG21	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:413:THR:HB	1:C:437:VAL:H	1.73	0.54
1:E:224:LEU:HD22	2:F:401:ARG:HH12	1.69	0.54
1:E:373:ILE:HD13	1:E:459:LEU:HD11	1.90	0.54
1:E:403:LEU:HD22	1:E:419:VAL:CG1	2.37	0.54
2:F:213:ILE:O	2:F:213:ILE:HG22	2.07	0.54
2:F:360:HIS:CD2	2:F:362:CYS:H	2.26	0.54
2:H:38:ILE:HG22	2:H:61:VAL:CG1	2.38	0.54
1:I:373:ILE:HG12	1:I:459:LEU:HD12	1.89	0.54
1:I:428:LYS:NZ	1:I:428:LYS:HB3	2.23	0.54
2:J:507:GLY:HA3	2:J:510:ILE:HG22	1.89	0.54
2:L:90:ARG:HB3	2:L:90:ARG:HH11	1.73	0.54
2:L:169:GLY:HA3	2:L:226:SER:CB	2.37	0.54
1:M:272:ASP:CG	1:M:273:GLN:H	2.11	0.54
1:O:208:LYS:HB2	1:O:209:PRO:CD	2.38	0.54
2:P:234:PRO:CB	2:P:235:PRO:HD3	2.25	0.54
2:P:357:ASP:OD1	2:P:358:ILE:HD12	2.08	0.54
2:P:566:PRO:O	2:P:570:THR:HG23	2.08	0.54
1:C:177:LYS:HG2	1:C:181:PHE:HE1	1.70	0.54
1:C:179:SER:O	1:C:181:PHE:N	2.41	0.54
1:C:343:LYS:CB	1:C:344:PRO:HD3	2.34	0.54
2:D:142:LEU:HD23	2:D:142:LEU:O	2.08	0.54
2:D:186:LEU:HD23	2:D:237:ILE:HG22	1.90	0.54
1:E:466:MET:HA	1:E:466:MET:CE	2.38	0.54
2:F:576:MET:CB	2:F:577:PRO:HD2	2.38	0.54
1:G:278:PHE:O	2:H:440:SER:HB3	2.08	0.54
2:H:77:LEU:HD23	2:H:77:LEU:C	2.28	0.54
2:H:82:ARG:HD2	2:H:94:PRO:HG3	1.89	0.54
2:H:90:ARG:HB3	2:H:90:ARG:HH11	1.72	0.54
2:H:189:THR:HG23	2:H:190:LYS:H	1.73	0.54
2:H:271:VAL:HG22	2:H:284:VAL:CG2	2.37	0.54
2:H:470:LEU:HB2	2:H:471:PRO:HD3	1.90	0.54
2:J:179:SER:N	2:J:195:CYS:HB2	2.22	0.54
2:J:185:PRO:HG2	2:J:188:LYS:CB	2.37	0.54
2:J:215:GLU:O	2:J:216:ASN:HB3	2.08	0.54
1:K:37:VAL:C	1:K:39:GLY:H	2.11	0.54
2:L:181:ILE:HD11	2:L:194:ALA:HB2	1.90	0.54
2:L:420:GLN:HG3	2:L:448:GLN:HE21	1.72	0.54
2:L:508:PHE:CD1	2:L:563:VAL:HG23	2.42	0.54
1:M:193:SER:H	1:M:196:MET:HB2	1.72	0.54
2:P:129:ILE:HD12	2:P:251:ILE:HD12	1.89	0.54
2:P:360:HIS:CD2	2:P:362:CYS:H	2.26	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:507:GLY:HA3	2:P:510:ILE:HG22	1.90	0.54
2:B:118:ARG:HB2	2:B:173:TYR:OH	2.09	0.53
2:B:129:ILE:HD12	2:B:251:ILE:HD12	1.89	0.53
2:B:470:LEU:HB2	2:B:471:PRO:CD	2.36	0.53
1:C:81:PHE:CD2	1:C:132:MET:HE2	2.43	0.53
1:C:247:PRO:HB3	2:D:391:PHE:CE1	2.43	0.53
1:E:325:ARG:O	1:E:356:VAL:HG12	2.08	0.53
2:F:299:PHE:HB3	2:F:300:PRO:HA	1.89	0.53
2:F:565:HIS:CD2	2:F:567:ASP:HB2	2.43	0.53
1:G:414:GLU:CB	1:G:415:PRO:CD	2.84	0.53
1:I:343:LYS:CB	1:I:344:PRO:HD3	2.32	0.53
2:J:455:LEU:HB3	2:J:456:PRO:HD3	1.89	0.53
1:K:474:ILE:HD12	1:K:474:ILE:N	2.07	0.53
2:L:71:ARG:HH22	2:L:366:GLU:CD	2.10	0.53
2:L:179:SER:HA	2:L:193:THR:HG21	1.90	0.53
2:L:189:THR:HG23	2:L:190:LYS:H	1.73	0.53
1:M:216:GLY:O	1:M:217:VAL:C	2.46	0.53
1:M:350:TYR:HB2	1:M:376:VAL:HG13	1.88	0.53
2:N:512:HIS:HA	2:N:561:LEU:HD11	1.90	0.53
2:P:420:GLN:HG3	2:P:448:GLN:HE21	1.73	0.53
1:A:449:PRO:HG2	1:A:452:VAL:HG23	1.89	0.53
2:B:301:GLU:O	2:B:301:GLU:HG3	2.08	0.53
2:B:308:MET:SD	2:B:346:GLN:HB3	2.48	0.53
1:C:316:LEU:O	1:C:316:LEU:HD23	2.08	0.53
1:C:479:GLY:HA3	2:D:415:PHE:HE1	1.73	0.53
2:D:122:VAL:HG23	2:D:299:PHE:CG	2.44	0.53
2:D:177:ARG:HG2	2:D:178:PRO:CD	2.38	0.53
2:F:271:VAL:HG22	2:F:284:VAL:HG22	1.89	0.53
2:F:515:LEU:HD11	2:F:551:ILE:HG21	1.88	0.53
2:H:38:ILE:HD13	2:H:63:TYR:HE1	1.73	0.53
2:H:117:ILE:HD12	2:H:117:ILE:N	2.23	0.53
2:H:234:PRO:HB2	2:H:235:PRO:CD	2.31	0.53
2:H:519:MET:HG3	2:H:533:TYR:CE1	2.43	0.53
1:I:413:THR:HB	1:I:437:VAL:H	1.72	0.53
2:J:73:ASP:HA	2:J:273:MET:HE1	1.90	0.53
2:J:169:GLY:HA3	2:J:226:SER:CB	2.38	0.53
2:J:565:HIS:O	2:J:568:VAL:HG22	2.08	0.53
1:K:359:ASN:ND2	2:L:443:LYS:HE2	2.23	0.53
1:K:449:PRO:HG2	1:K:452:VAL:HG23	1.90	0.53
2:L:124:ALA:HA	2:L:287:ALA:CB	2.38	0.53
2:L:177:ARG:HG2	2:L:178:PRO:CD	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:235:PRO:HB2	2:L:236:ILE:HD12	1.90	0.53
2:N:186:LEU:CD2	2:N:238:ASN:H	2.21	0.53
2:N:470:LEU:HB2	2:N:471:PRO:CD	2.38	0.53
2:N:547:ARG:HG2	2:N:547:ARG:NH1	2.22	0.53
1:O:413:THR:HB	1:O:437:VAL:H	1.72	0.53
1:O:449:PRO:HG2	1:O:452:VAL:CG2	2.39	0.53
1:A:196:MET:HB3	1:A:202:TRP:HB3	1.90	0.53
1:A:422:TYR:HD2	1:A:423:HIS:H	1.57	0.53
2:B:139:PHE:CE2	2:B:161:THR:HG21	2.43	0.53
2:B:185:PRO:HG2	2:B:188:LYS:CB	2.36	0.53
2:B:200:ILE:HD12	2:B:200:ILE:O	2.09	0.53
2:B:299:PHE:HB3	2:B:300:PRO:HA	1.91	0.53
2:B:401:ARG:HD2	2:B:411:GLU:OE2	2.08	0.53
2:B:566:PRO:O	2:B:570:THR:HG23	2.08	0.53
1:C:106:LYS:HG3	1:C:106:LYS:O	2.08	0.53
1:C:267:GLN:O	2:D:152:ARG:HD2	2.09	0.53
2:D:414:THR:CG2	2:D:457:GLY:HA3	2.39	0.53
2:D:480:ILE:HG12	2:D:496:HIS:NE2	2.22	0.53
1:E:194:PRO:HD2	1:E:195:GLU:OE1	2.08	0.53
2:F:189:THR:HG23	2:F:190:LYS:H	1.73	0.53
1:G:469:TYR:OH	1:G:493:CYS:HB2	2.07	0.53
2:H:133:LYS:HD2	2:H:133:LYS:N	2.21	0.53
2:H:507:GLY:HA3	2:H:510:ILE:HG22	1.91	0.53
2:J:45:ILE:O	2:J:45:ILE:HG22	2.08	0.53
1:K:298:ARG:HG3	1:K:298:ARG:NH1	2.23	0.53
1:M:480:HIS:N	1:M:480:HIS:CD2	2.76	0.53
2:N:152:ARG:HD3	2:N:156:LEU:HD11	1.89	0.53
1:O:435:SER:HA	3:O:509:PHE:HE2	1.74	0.53
1:E:494:ARG:NH1	1:E:494:ARG:HB3	2.23	0.53
3:E:509:PHE:N	3:E:509:PHE:CD1	2.77	0.53
2:H:470:LEU:HB2	2:H:471:PRO:CD	2.39	0.53
2:J:420:GLN:H	2:J:448:GLN:HE21	1.57	0.53
2:J:512:HIS:CE1	1:K:216:GLY:N	2.71	0.53
1:K:248:THR:CG2	1:K:354:ASP:OD1	2.56	0.53
1:K:279:LEU:HD12	1:K:282:PRO:HD2	1.90	0.53
1:K:395:PHE:CZ	1:K:432:VAL:HG23	2.44	0.53
1:M:213:LEU:C	1:M:215:HIS:H	2.12	0.53
1:M:279:LEU:HB3	1:M:322:ASN:HB2	1.89	0.53
2:N:213:ILE:O	2:N:213:ILE:HG22	2.08	0.53
1:O:365:THR:CG2	1:O:475:ARG:HB2	2.38	0.53
1:A:479:GLY:CA	2:B:415:PHE:CE1	2.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:108:LEU:HD21	2:B:173:TYR:HB2	1.89	0.53
1:E:259:PHE:HE2	1:E:326:THR:HG1	1.55	0.53
1:E:325:ARG:NH1	1:E:354:ASP:OD2	2.39	0.53
2:F:301:GLU:O	2:F:301:GLU:HG3	2.08	0.53
2:H:142:LEU:HD23	2:H:142:LEU:C	2.29	0.53
2:J:6:VAL:HG21	2:J:11:LEU:HD12	1.91	0.53
2:J:126:LEU:HD23	2:J:126:LEU:N	2.24	0.53
2:J:267:LEU:CD2	2:J:300:PRO:HB3	2.37	0.53
2:J:343:ASP:O	2:J:345:ASN:N	2.42	0.53
1:K:474:ILE:C	1:K:476:GLU:H	2.11	0.53
2:L:131:PHE:CE2	2:L:136:TYR:HA	2.44	0.53
1:M:210:TYR:HB3	1:M:212:PHE:CE2	2.43	0.53
1:M:217:VAL:O	1:M:217:VAL:HG12	2.08	0.53
2:N:115:ALA:O	2:N:116:LYS:HG3	2.08	0.53
2:N:267:LEU:CD2	2:N:300:PRO:HB3	2.37	0.53
1:O:466:MET:SD	1:O:474:ILE:HG12	2.49	0.53
2:P:162:HIS:CD2	2:P:231:LEU:HD12	2.44	0.53
2:P:169:GLY:HA3	2:P:226:SER:CB	2.38	0.53
2:P:185:PRO:HG2	2:P:188:LYS:CB	2.37	0.53
2:P:192:TYR:N	2:P:192:TYR:CD1	2.76	0.53
2:B:179:SER:N	2:B:195:CYS:HB2	2.24	0.53
2:B:416:ALA:HA	2:B:451:ARG:HG3	1.91	0.53
1:C:370:PHE:HB2	1:C:462:GLU:OE2	2.09	0.53
2:F:42:LYS:HB3	2:F:58:SER:OG	2.08	0.53
2:F:147:HIS:CE1	2:F:159:ILE:HG12	2.43	0.53
2:F:199:ASN:HA	2:F:202:LYS:HG3	1.91	0.53
2:F:208:LYS:O	2:F:211:LEU:HD21	2.09	0.53
2:H:108:LEU:HD21	2:H:173:TYR:HB2	1.91	0.53
2:J:420:GLN:NE2	2:J:431:ILE:HG21	2.24	0.53
1:K:373:ILE:HD13	1:K:459:LEU:HD11	1.90	0.53
1:K:437:VAL:O	1:K:438:PHE:C	2.47	0.53
2:L:128:ASN:H	2:L:250:ASN:ND2	2.06	0.53
2:N:179:SER:HA	2:N:193:THR:HG21	1.91	0.53
2:N:180:ASP:O	2:N:181:ILE:HG23	2.08	0.53
2:N:414:THR:CG2	2:N:457:GLY:HA3	2.39	0.53
1:O:226:PRO:HG2	1:O:486:MET:HE1	1.89	0.53
2:B:90:ARG:HH11	2:B:90:ARG:CB	2.22	0.53
2:B:181:ILE:HD11	2:B:194:ALA:HB2	1.91	0.53
2:B:234:PRO:HB2	2:B:235:PRO:CD	2.23	0.53
2:B:480:ILE:HG12	2:B:496:HIS:NE2	2.24	0.53
2:B:575:THR:HB	2:B:576:MET:HE2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:85:PRO:HB2	1:C:86:PRO:CD	2.34	0.53
1:C:186:SER:C	1:C:188:GLN:H	2.12	0.53
2:D:169:GLY:HA3	2:D:226:SER:CB	2.38	0.53
2:D:264:LYS:HD2	2:D:301:GLU:CD	2.29	0.53
2:F:62:LEU:HD23	2:F:62:LEU:H	1.74	0.53
2:F:420:GLN:HG3	2:F:448:GLN:HE21	1.70	0.53
2:F:482:ILE:HG22	2:F:483:LYS:O	2.09	0.53
2:H:91:ILE:HG12	2:H:92:LYS:N	2.23	0.53
2:H:185:PRO:HG2	2:H:188:LYS:CB	2.38	0.53
2:H:244:ILE:HD12	2:H:244:ILE:H	1.73	0.53
2:H:391:PHE:HD2	2:H:392:PRO:CD	2.22	0.53
1:I:243:PHE:CD2	1:I:349:LYS:HB3	2.44	0.53
2:J:426:LYS:HA	2:J:571:LYS:CE	2.36	0.53
1:M:359:ASN:HD21	2:N:443:LYS:HE2	1.74	0.53
2:N:565:HIS:ND1	2:N:566:PRO:HD2	2.22	0.53
2:P:264:LYS:HD2	2:P:301:GLU:CD	2.29	0.53
2:P:391:PHE:CD2	2:P:392:PRO:HD2	2.38	0.53
2:P:554:ARG:HG2	2:P:554:ARG:NH1	2.21	0.53
1:C:72:ARG:HB3	1:C:72:ARG:NH1	2.24	0.53
1:C:96:ARG:O	1:C:97:LEU:HB2	2.07	0.53
2:D:122:VAL:CG2	2:D:299:PHE:CD2	2.92	0.53
2:D:584:ASN:ND2	2:D:587:PRO:HD3	2.24	0.53
1:E:438:PHE:CD1	1:E:454:VAL:HG22	2.43	0.53
2:F:162:HIS:CD2	2:F:231:LEU:HD12	2.43	0.53
1:G:286:LEU:O	1:G:287:GLN:HB2	2.09	0.53
1:I:218:LEU:HD23	1:I:218:LEU:H	1.74	0.53
1:I:267:GLN:NE2	2:J:262:LYS:HE3	2.23	0.53
2:J:8:ARG:NH2	2:J:61:VAL:HG21	2.24	0.53
2:J:420:GLN:H	2:J:448:GLN:NE2	2.07	0.53
1:K:477:LEU:HD23	1:K:486:MET:HE1	1.91	0.53
2:L:192:TYR:N	2:L:192:TYR:CD1	2.77	0.53
1:O:292:TYR:O	1:O:296:VAL:HG23	2.09	0.53
1:O:343:LYS:CB	1:O:344:PRO:HD3	2.31	0.53
2:B:126:LEU:HD21	2:B:251:ILE:HB	1.90	0.53
1:C:327:HIS:HA	1:C:356:VAL:HG11	1.90	0.53
2:D:331:LEU:HD21	2:D:368:ALA:HB2	1.90	0.53
2:H:175:ALA:CB	2:H:219:LEU:HB3	2.36	0.53
2:H:186:LEU:CD2	2:H:238:ASN:H	2.21	0.53
2:H:458:LEU:HD22	2:H:474:LEU:HB3	1.91	0.53
2:J:90:ARG:HB3	2:J:90:ARG:HH11	1.73	0.53
1:K:233:GLN:O	1:K:237:ILE:HG12	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:258:ASN:HD21	1:M:327:HIS:CE1	2.26	0.53
2:N:147:HIS:ND1	2:N:154:ARG:HG2	2.24	0.53
2:N:169:GLY:HA3	2:N:226:SER:CB	2.39	0.53
2:P:498:CYS:HB2	2:P:582:GLU:HG3	1.91	0.53
2:B:131:PHE:CE2	2:B:136:TYR:HA	2.43	0.53
2:B:215:GLU:OE1	2:B:221:PRO:HD2	2.08	0.53
1:C:64:THR:HG22	1:C:66:GLU:H	1.74	0.53
1:C:227:LEU:HD22	1:C:461:LEU:HD12	1.91	0.53
1:C:277:PHE:CZ	1:C:359:ASN:HA	2.44	0.53
1:C:427:LYS:O	1:C:428:LYS:HB2	2.09	0.53
2:D:8:ARG:NH1	2:D:61:VAL:HG11	2.23	0.53
2:D:17:ARG:CZ	2:D:19:TYR:HE1	2.22	0.53
2:D:175:ALA:HA	2:D:220:TYR:O	2.09	0.53
2:D:234:PRO:HB2	2:D:235:PRO:CD	2.28	0.53
1:E:440:PRO:HG3	2:F:360:HIS:HE2	1.74	0.53
1:G:316:LEU:HD23	1:G:316:LEU:O	2.08	0.53
2:J:234:PRO:HB2	2:J:235:PRO:CD	2.28	0.53
2:L:142:LEU:HD23	2:L:142:LEU:O	2.09	0.53
1:M:208:LYS:HG2	1:M:209:PRO:CD	2.36	0.53
1:M:437:VAL:O	1:M:438:PHE:C	2.47	0.53
2:N:131:PHE:CE2	2:N:136:TYR:HA	2.43	0.53
2:N:154:ARG:HA	2:N:157:VAL:O	2.09	0.53
2:N:301:GLU:O	2:N:301:GLU:HG3	2.09	0.53
2:N:554:ARG:HG2	2:N:554:ARG:NH1	2.23	0.53
1:O:414:GLU:CB	1:O:415:PRO:CD	2.82	0.53
2:P:543:PHE:CD2	2:P:562:GLY:HA3	2.44	0.53
1:A:437:VAL:HG13	1:A:455:ILE:HG22	1.91	0.52
2:B:91:ILE:HG12	2:B:92:LYS:N	2.22	0.52
2:B:162:HIS:CD2	2:B:231:LEU:HD12	2.44	0.52
1:C:71:ALA:HB1	1:C:144:ARG:HD3	1.91	0.52
1:C:328:THR:OG1	1:C:372:GLN:NE2	2.41	0.52
1:C:373:ILE:HG12	1:C:459:LEU:HD12	1.91	0.52
2:F:291:PHE:CE1	2:F:297:HIS:HD2	2.27	0.52
2:F:400:LEU:HD21	2:F:522:LEU:HD21	1.91	0.52
2:F:400:LEU:HD23	1:G:492:LEU:HD11	1.90	0.52
2:F:414:THR:HG23	2:F:457:GLY:HA3	1.91	0.52
1:G:277:PHE:HB2	1:G:324:LEU:HB2	1.91	0.52
1:G:279:LEU:HA	2:H:440:SER:H	1.73	0.52
2:H:118:ARG:HB2	2:H:173:TYR:OH	2.09	0.52
2:H:431:ILE:H	2:H:431:ILE:CD1	2.07	0.52
2:H:508:PHE:HE1	2:H:562:GLY:CA	2.20	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:355:ARG:HD3	1:M:371:HIS:NE2	2.24	0.52
2:N:271:VAL:HG22	2:N:284:VAL:CG2	2.38	0.52
2:N:462:ILE:HG23	2:N:472:LEU:CD1	2.33	0.52
1:O:477:LEU:HD23	1:O:486:MET:CE	2.38	0.52
2:P:113:GLU:HB3	2:P:219:LEU:HD13	1.91	0.52
2:P:123:ALA:HB1	2:P:253:ILE:O	2.09	0.52
1:A:193:SER:O	1:A:197:ILE:HG13	2.09	0.52
1:A:296:VAL:O	1:A:300:HIS:HB2	2.09	0.52
3:A:509:PHE:O	3:A:509:PHE:CG	2.62	0.52
2:B:122:VAL:CG2	2:B:299:PHE:CD2	2.92	0.52
2:B:508:PHE:CE2	1:C:210:TYR:CD2	2.93	0.52
1:C:149:GLU:C	1:C:151:LEU:H	2.13	0.52
2:D:236:ILE:N	2:D:236:ILE:CD1	2.69	0.52
2:D:299:PHE:HB3	2:D:300:PRO:HA	1.91	0.52
2:F:188:LYS:HE2	2:F:201:TYR:OH	2.09	0.52
2:F:503:ASN:O	2:F:577:PRO:HD2	2.08	0.52
1:I:251:PHE:H	2:J:493:ASN:HD21	1.57	0.52
2:J:470:LEU:HB2	2:J:471:PRO:HD3	1.90	0.52
2:J:517:ARG:HG3	2:J:521:LEU:HD23	1.90	0.52
1:K:180:ALA:HB1	1:K:204:ASP:O	2.08	0.52
1:K:271:ARG:HG2	1:K:271:ARG:O	2.09	0.52
1:K:357:PHE:N	1:K:357:PHE:CD1	2.77	0.52
2:L:45:ILE:HG12	2:L:48:GLU:OE2	2.09	0.52
2:L:147:HIS:ND1	2:L:154:ARG:HG2	2.24	0.52
2:L:157:VAL:HG11	2:L:266:VAL:HG21	1.91	0.52
2:L:350:GLU:O	2:L:352:PRO:HD3	2.09	0.52
2:L:480:ILE:HG12	2:L:496:HIS:NE2	2.24	0.52
2:L:514:LEU:HD23	2:L:581:LEU:HD23	1.91	0.52
1:M:236:GLN:O	1:M:240:GLU:HG3	2.09	0.52
2:N:60:VAL:HG12	2:N:61:VAL:N	2.17	0.52
2:N:357:ASP:O	2:N:359:ILE:HG23	2.10	0.52
2:N:498:CYS:HB2	2:N:582:GLU:HG3	1.90	0.52
1:O:196:MET:HA	1:O:201:SER:HB2	1.91	0.52
1:O:259:PHE:O	1:O:264:GLN:HB2	2.09	0.52
2:B:310:ARG:NH2	2:B:312:ASP:HB2	2.23	0.52
1:C:21:LEU:HD11	1:C:26:LEU:HD23	1.92	0.52
1:C:114:ARG:NH1	1:C:114:ARG:CG	2.69	0.52
1:C:438:PHE:CD1	1:C:454:VAL:HG22	2.44	0.52
1:C:472:ASN:N	1:C:472:ASN:ND2	2.54	0.52
2:D:180:ASP:O	2:D:181:ILE:HG23	2.09	0.52
2:D:444:THR:HG22	2:D:447:PHE:CD1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:458:LEU:HD22	2:D:474:LEU:HB3	1.90	0.52
2:F:565:HIS:ND1	2:F:566:PRO:HD2	2.25	0.52
1:G:227:LEU:HD22	1:G:465:THR:HG21	1.90	0.52
1:G:268:HIS:C	1:G:270:ALA:H	2.12	0.52
1:G:366:HIS:NE2	1:G:473:ASN:ND2	2.58	0.52
2:H:324:PRO:HG3	2:H:344:GLY:O	2.08	0.52
2:H:543:PHE:CD2	2:H:562:GLY:HA3	2.45	0.52
1:I:227:LEU:HD22	1:I:461:LEU:HD12	1.91	0.52
1:I:422:TYR:CE1	1:I:427:LYS:HA	2.45	0.52
2:J:245:THR:CG2	2:J:246:VAL:N	2.73	0.52
2:J:458:LEU:HD22	2:J:474:LEU:HB3	1.92	0.52
1:K:287:GLN:O	1:K:288:LEU:CD1	2.55	0.52
1:K:373:ILE:HG12	1:K:459:LEU:CD1	2.39	0.52
2:L:139:PHE:CE2	2:L:161:THR:HG21	2.44	0.52
2:N:90:ARG:HH11	2:N:90:ARG:CB	2.22	0.52
2:N:124:ALA:HA	2:N:287:ALA:CB	2.39	0.52
2:N:208:LYS:O	2:N:211:LEU:HD21	2.09	0.52
2:N:299:PHE:HB3	2:N:300:PRO:HA	1.91	0.52
2:N:387:ILE:HG23	1:O:241:MET:HG2	1.91	0.52
1:O:350:TYR:HB2	1:O:376:VAL:HG13	1.91	0.52
1:O:406:LYS:HD3	1:O:420:PHE:CE2	2.45	0.52
2:P:124:ALA:HA	2:P:287:ALA:CB	2.39	0.52
2:P:215:GLU:O	2:P:216:ASN:HB3	2.09	0.52
2:P:301:GLU:O	2:P:301:GLU:HG3	2.10	0.52
2:P:459:LEU:HA	2:P:462:ILE:HD12	1.89	0.52
1:A:391:LEU:HD13	1:A:419:VAL:CG1	2.38	0.52
2:B:85:GLN:HB3	2:B:91:ILE:HG21	1.91	0.52
1:C:138:ARG:HG2	1:C:138:ARG:HH11	1.75	0.52
2:D:55:ALA:CB	2:D:59:ASP:HB3	2.39	0.52
1:E:279:LEU:HD12	1:E:279:LEU:O	2.10	0.52
1:E:298:ARG:HG3	1:E:298:ARG:NH1	2.24	0.52
2:F:90:ARG:HB3	2:F:90:ARG:HH11	1.74	0.52
1:G:367:LEU:HD23	1:G:367:LEU:C	2.30	0.52
2:H:249:ARG:C	2:H:250:ASN:HD22	2.12	0.52
2:J:42:LYS:HE2	2:J:59:ASP:OD1	2.09	0.52
2:J:175:ALA:HA	2:J:220:TYR:O	2.10	0.52
2:J:186:LEU:CD2	2:J:238:ASN:H	2.20	0.52
1:K:281:ASP:CB	1:K:282:PRO:HD3	2.29	0.52
2:L:118:ARG:CZ	2:L:257:GLY:HA2	2.39	0.52
2:L:547:ARG:HG2	2:L:547:ARG:HH11	1.74	0.52
1:M:286:LEU:CG	1:M:287:GLN:H	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:289:PRO:HG2	1:M:293:VAL:HG23	1.91	0.52
2:N:132:THR:HG22	2:N:134:ASP:H	1.74	0.52
2:P:38:ILE:HD13	2:P:63:TYR:HE1	1.73	0.52
2:B:77:LEU:HD23	2:B:77:LEU:C	2.30	0.52
2:B:565:HIS:ND1	2:B:566:PRO:HD2	2.25	0.52
1:C:286:LEU:O	1:C:287:GLN:HB2	2.10	0.52
1:C:288:LEU:HB2	1:C:289:PRO:HD2	1.91	0.52
2:D:301:GLU:O	2:D:301:GLU:HG3	2.10	0.52
2:F:444:THR:HG22	2:F:447:PHE:CD1	2.45	0.52
2:H:113:GLU:HB3	2:H:219:LEU:HD13	1.92	0.52
2:J:114:THR:O	2:J:117:ILE:HD12	2.09	0.52
2:L:70:ASN:HB3	2:L:71:ARG:HD2	1.91	0.52
2:L:108:LEU:HD21	2:L:173:TYR:HB2	1.92	0.52
2:L:280:ASN:HB3	2:L:283:THR:HG21	1.92	0.52
2:L:414:THR:CG2	2:L:457:GLY:HA3	2.39	0.52
1:M:417:MET:HB3	2:N:374:TYR:HE1	1.73	0.52
2:N:44:ILE:C	2:N:46:SER:N	2.63	0.52
2:P:186:LEU:CD2	2:P:238:ASN:H	2.21	0.52
1:A:470:GLY:O	1:A:471:ILE:HD12	2.09	0.52
2:B:414:THR:CG2	2:B:457:GLY:HA3	2.40	0.52
1:C:20:GLY:HA2	1:C:174:TRP:NE1	2.24	0.52
1:C:64:THR:OG1	1:C:165:LEU:N	2.43	0.52
1:C:100:GLY:O	1:C:103:GLY:N	2.43	0.52
1:C:377:VAL:HG12	1:C:382:LEU:HD11	1.92	0.52
1:C:437:VAL:O	1:C:438:PHE:C	2.48	0.52
1:C:449:PRO:HB2	1:C:451:ASN:OD1	2.09	0.52
2:D:131:PHE:CE2	2:D:136:TYR:HA	2.44	0.52
2:F:103:GLY:O	2:F:105:ILE:N	2.40	0.52
2:F:107:LYS:HE2	2:F:109:ILE:HD11	1.91	0.52
2:F:245:THR:CG2	2:F:246:VAL:N	2.73	0.52
2:H:162:HIS:CD2	2:H:231:LEU:HD12	2.45	0.52
2:H:179:SER:N	2:H:195:CYS:HB2	2.24	0.52
2:H:565:HIS:CD2	2:H:567:ASP:HB2	2.45	0.52
2:J:142:LEU:HD23	2:J:142:LEU:C	2.30	0.52
2:L:122:VAL:HG23	2:L:299:PHE:CG	2.45	0.52
1:M:261:ALA:C	1:M:263:PHE:H	2.12	0.52
2:N:280:ASN:HB3	2:N:283:THR:HG21	1.91	0.52
2:N:470:LEU:HB2	2:N:471:PRO:HD3	1.91	0.52
1:A:267:GLN:NE2	2:B:262:LYS:NZ	2.58	0.52
1:A:377:VAL:HG12	1:A:382:LEU:HD11	1.92	0.52
2:B:167:LEU:HD13	2:B:171:PHE:CE2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:115:ALA:O	2:D:116:LYS:HG3	2.10	0.52
2:D:118:ARG:HB2	2:D:173:TYR:OH	2.10	0.52
2:D:215:GLU:O	2:D:216:ASN:HB3	2.10	0.52
1:E:267:GLN:CA	2:F:152:ARG:HD2	2.39	0.52
1:E:288:LEU:CB	1:E:289:PRO:HD2	2.40	0.52
2:F:57:ALA:O	2:F:60:VAL:HG23	2.10	0.52
2:F:154:ARG:HA	2:F:157:VAL:O	2.10	0.52
2:F:174:THR:OG1	2:F:175:ALA:N	2.43	0.52
1:G:273:GLN:O	1:G:274:HIS:C	2.48	0.52
1:G:474:ILE:C	1:G:476:GLU:H	2.13	0.52
2:H:201:TYR:C	2:H:203:THR:H	2.13	0.52
1:I:226:PRO:HG2	1:I:486:MET:HE1	1.91	0.52
1:I:365:THR:HA	1:I:474:ILE:HD12	1.92	0.52
2:J:351:ILE:N	2:J:351:ILE:HD12	2.24	0.52
2:J:470:LEU:HB2	2:J:471:PRO:CD	2.39	0.52
1:K:185:ILE:O	1:K:187:LYS:N	2.43	0.52
2:L:118:ARG:HB2	2:L:173:TYR:OH	2.10	0.52
2:L:324:PRO:HG3	2:L:344:GLY:O	2.08	0.52
1:M:229:LYS:HE3	1:M:491:PRO:O	2.08	0.52
1:M:283:ALA:HA	1:M:322:ASN:HB2	1.90	0.52
2:N:508:PHE:HB2	2:N:563:VAL:CG2	2.39	0.52
2:P:48:GLU:HG3	2:P:49:GLN:N	2.25	0.52
2:P:179:SER:HA	2:P:193:THR:HG21	1.91	0.52
2:B:420:GLN:NE2	2:B:431:ILE:HG21	2.25	0.52
1:C:108:MET:C	1:C:110:ASN:H	2.12	0.52
1:C:301:SER:HB2	1:C:312:TYR:O	2.10	0.52
1:I:438:PHE:CD1	1:I:454:VAL:HG22	2.44	0.52
2:J:181:ILE:HD11	2:J:194:ALA:HB2	1.90	0.52
2:J:459:LEU:HA	2:J:462:ILE:HD12	1.92	0.52
1:M:226:PRO:HG2	1:M:486:MET:HE1	1.92	0.52
1:M:305:TYR:HB3	1:M:444:LEU:HD12	1.90	0.52
2:N:341:ILE:HG22	2:N:341:ILE:O	2.08	0.52
2:P:118:ARG:HB2	2:P:173:TYR:OH	2.10	0.52
2:B:71:ARG:CG	2:B:355:ARG:CZ	2.88	0.52
1:C:266:GLN:OE1	1:C:318:GLU:HB3	2.09	0.52
2:D:77:LEU:C	2:D:77:LEU:HD23	2.30	0.52
2:D:126:LEU:HD23	2:D:126:LEU:N	2.23	0.52
2:D:213:ILE:O	2:D:213:ILE:HG22	2.10	0.52
2:D:420:GLN:NE2	2:D:431:ILE:HG21	2.25	0.52
2:D:507:GLY:HA3	2:D:510:ILE:HG22	1.91	0.52
1:E:438:PHE:HD1	1:E:454:VAL:HG22	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:126:LEU:HD23	2:F:126:LEU:N	2.25	0.52
1:I:200:GLY:C	1:I:202:TRP:H	2.13	0.52
1:K:343:LYS:CB	1:K:344:PRO:CD	2.78	0.52
1:M:262:LEU:CD2	1:M:333:ALA:HB2	2.39	0.52
2:N:235:PRO:HB2	2:N:236:ILE:HD12	1.92	0.52
1:A:438:PHE:HD1	1:A:454:VAL:HG22	1.75	0.52
1:C:74:GLY:HA2	1:C:137:GLN:HG3	1.92	0.52
1:C:233:GLN:O	1:C:237:ILE:HG12	2.09	0.52
2:D:129:ILE:HD12	2:D:251:ILE:HD12	1.92	0.52
2:D:426:LYS:O	2:D:568:VAL:HG12	2.10	0.52
1:E:377:VAL:HG12	1:E:382:LEU:HD11	1.92	0.52
2:F:132:THR:HG22	2:F:134:ASP:N	2.25	0.52
1:G:253:GLU:OE1	1:G:257:TRP:HB2	2.10	0.52
1:G:449:PRO:HG2	1:G:452:VAL:HG23	1.91	0.52
2:H:172:THR:O	2:H:223:ILE:HA	2.09	0.52
2:H:498:CYS:HB2	2:H:582:GLU:HG3	1.91	0.52
2:H:515:LEU:HD11	2:H:551:ILE:CG2	2.41	0.52
2:H:515:LEU:HD11	2:H:551:ILE:HG21	1.92	0.52
1:I:311:LYS:HD3	2:J:261:THR:HG21	1.91	0.52
2:J:208:LYS:O	2:J:211:LEU:HD21	2.10	0.52
1:K:251:PHE:H	2:L:493:ASN:HD21	1.58	0.52
1:K:403:LEU:HD22	1:K:419:VAL:CG1	2.38	0.52
2:L:113:GLU:HB3	2:L:219:LEU:HD13	1.92	0.52
2:L:299:PHE:HB3	2:L:300:PRO:HA	1.91	0.52
2:L:458:LEU:HD22	2:L:474:LEU:HB3	1.92	0.52
2:L:554:ARG:HG2	2:L:554:ARG:NH1	2.21	0.52
1:M:285:ALA:O	1:M:286:LEU:O	2.27	0.52
2:N:534:VAL:HG23	2:N:534:VAL:O	2.09	0.52
1:O:296:VAL:O	1:O:300:HIS:HB2	2.10	0.52
2:P:576:MET:CB	2:P:577:PRO:HD2	2.40	0.52
1:A:262:LEU:HD22	1:A:329:THR:HG22	1.91	0.51
1:A:325:ARG:NH1	1:A:354:ASP:OD2	2.43	0.51
1:A:349:LYS:HE2	2:D:385:TYR:CE1	2.44	0.51
2:B:124:ALA:HA	2:B:287:ALA:CB	2.39	0.51
2:B:147:HIS:HE1	2:B:158:ALA:HA	1.74	0.51
2:B:508:PHE:HB2	2:B:563:VAL:CG2	2.41	0.51
2:D:519:MET:HE1	2:D:522:LEU:HD12	1.91	0.51
2:D:569:ILE:HD13	2:D:576:MET:O	2.11	0.51
2:F:517:ARG:HG3	2:F:521:LEU:HD23	1.91	0.51
1:G:305:TYR:HB3	1:G:444:LEU:HD12	1.91	0.51
2:H:215:GLU:O	2:H:216:ASN:HB3	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:299:PHE:HB3	2:H:300:PRO:HA	1.91	0.51
2:H:547:ARG:HG2	2:H:547:ARG:NH1	2.26	0.51
1:I:279:LEU:O	1:I:283:ALA:HB2	2.10	0.51
1:I:327:HIS:HA	1:I:356:VAL:HG11	1.91	0.51
2:J:565:HIS:HD2	2:J:567:ASP:HB2	1.76	0.51
2:L:123:ALA:HB1	2:L:253:ILE:O	2.11	0.51
2:L:281:GLN:HG2	2:L:282:PHE:CD1	2.44	0.51
1:M:196:MET:O	1:M:202:TRP:HD1	1.92	0.51
2:N:129:ILE:HD12	2:N:251:ILE:HD12	1.92	0.51
1:O:267:GLN:HE21	2:P:262:LYS:CE	2.19	0.51
1:O:343:LYS:CB	1:O:344:PRO:CD	2.77	0.51
1:O:364:ALA:HB3	1:O:366:HIS:CD2	2.45	0.51
2:P:33:LEU:CD2	2:P:67:VAL:HG22	2.40	0.51
2:P:351:ILE:N	2:P:351:ILE:HD12	2.24	0.51
2:P:547:ARG:HG2	2:P:547:ARG:NH1	2.26	0.51
1:C:46:ALA:O	1:C:48:GLY:N	2.43	0.51
1:C:84:ILE:HD11	1:C:125:VAL:O	2.11	0.51
2:D:280:ASN:HB3	2:D:283:THR:HG21	1.92	0.51
2:D:497:LEU:C	2:D:497:LEU:HD23	2.30	0.51
2:D:508:PHE:HB2	2:D:563:VAL:CG2	2.40	0.51
2:D:519:MET:HG3	2:D:533:TYR:CE1	2.45	0.51
2:D:576:MET:CB	2:D:577:PRO:HD2	2.40	0.51
1:E:358:ARG:HD2	1:E:360:GLU:HB2	1.93	0.51
1:E:413:THR:HG21	1:E:436:GLY:HA3	1.91	0.51
1:E:437:VAL:O	1:E:438:PHE:C	2.48	0.51
2:F:357:ASP:O	2:F:359:ILE:HG23	2.10	0.51
2:F:470:LEU:HB2	2:F:471:PRO:HD3	1.87	0.51
2:H:401:ARG:HD2	2:H:411:GLU:OE2	2.10	0.51
2:J:126:LEU:HD21	2:J:251:ILE:HB	1.92	0.51
2:L:528:GLU:O	2:L:528:GLU:HG3	2.09	0.51
2:L:569:ILE:HD13	2:L:576:MET:O	2.10	0.51
1:M:479:GLY:HA2	2:N:413:LEU:O	2.11	0.51
2:N:139:PHE:CE2	2:N:161:THR:HG21	2.46	0.51
1:O:233:GLN:O	1:O:237:ILE:HG12	2.11	0.51
2:P:175:ALA:CB	2:P:219:LEU:HB3	2.34	0.51
2:B:124:ALA:CB	2:B:300:PRO:HD3	2.40	0.51
2:B:308:MET:SD	2:B:346:GLN:HG2	2.50	0.51
1:C:37:VAL:CG1	1:C:38:VAL:H	2.24	0.51
1:C:228:LEU:HD12	2:D:411:GLU:CD	2.31	0.51
2:D:132:THR:HG22	2:D:134:ASP:N	2.25	0.51
1:G:188:GLN:HG3	1:G:208:LYS:HB2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:208:LYS:HE2	1:G:210:TYR:HB2	1.92	0.51
2:J:127:ARG:NH1	2:J:285:GLU:OE1	2.43	0.51
2:J:324:PRO:HG3	2:J:344:GLY:O	2.09	0.51
2:L:142:LEU:HD23	2:L:142:LEU:C	2.31	0.51
1:M:298:ARG:HG3	1:M:298:ARG:NH1	2.24	0.51
2:N:142:LEU:HD23	2:N:142:LEU:O	2.10	0.51
2:N:426:LYS:HA	2:N:571:LYS:CE	2.37	0.51
2:P:118:ARG:CZ	2:P:257:GLY:HA2	2.41	0.51
1:A:474:ILE:O	1:A:477:LEU:HD12	2.11	0.51
2:B:62:LEU:HD23	2:B:62:LEU:H	1.74	0.51
2:B:122:VAL:HG23	2:B:299:PHE:CG	2.46	0.51
1:C:181:PHE:C	1:C:181:PHE:CD2	2.81	0.51
1:C:255:SER:HB2	1:C:321:LYS:O	2.09	0.51
1:C:353:ILE:HG23	1:C:373:ILE:HG22	1.92	0.51
1:E:248:THR:HG21	1:E:354:ASP:HB3	1.92	0.51
1:E:288:LEU:HB2	1:E:289:PRO:HD2	1.92	0.51
1:E:353:ILE:HG12	1:E:373:ILE:HB	1.92	0.51
2:H:131:PHE:CE2	2:H:136:TYR:HA	2.46	0.51
2:H:177:ARG:HG2	2:H:178:PRO:CD	2.40	0.51
2:H:497:LEU:HD23	2:H:497:LEU:C	2.30	0.51
2:J:508:PHE:CD1	2:J:563:VAL:HG23	2.45	0.51
2:J:512:HIS:CE1	1:K:215:HIS:HA	2.35	0.51
1:K:211:ASN:HD22	1:K:211:ASN:H	1.59	0.51
1:M:268:HIS:CD2	1:M:271:ARG:HB2	2.45	0.51
2:N:245:THR:CG2	2:N:246:VAL:N	2.74	0.51
1:O:243:PHE:CD2	1:O:349:LYS:HB3	2.46	0.51
2:P:148:GLN:HA	2:P:153:LYS:HA	1.92	0.51
2:P:249:ARG:C	2:P:250:ASN:HD22	2.14	0.51
2:P:299:PHE:HB3	2:P:300:PRO:HA	1.91	0.51
1:A:207:PHE:CZ	2:D:544:PHE:HZ	2.28	0.51
2:B:179:SER:HA	2:B:193:THR:HG21	1.91	0.51
2:B:507:GLY:HA3	2:B:510:ILE:HG22	1.92	0.51
2:D:123:ALA:HB1	2:D:253:ILE:O	2.10	0.51
2:D:179:SER:HA	2:D:193:THR:HG21	1.92	0.51
2:D:350:GLU:O	2:D:352:PRO:HD3	2.11	0.51
2:D:515:LEU:HD23	2:D:515:LEU:C	2.31	0.51
1:E:282:PRO:HG2	2:F:437:VAL:HG13	1.92	0.51
2:F:77:LEU:HD23	2:F:77:LEU:C	2.30	0.51
1:G:243:PHE:CD2	1:G:349:LYS:HB3	2.44	0.51
1:G:255:SER:HB2	1:G:321:LYS:O	2.11	0.51
1:G:281:ASP:CB	1:G:282:PRO:CD	2.84	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:373:ILE:CD1	1:G:459:LEU:HD11	2.41	0.51
2:J:280:ASN:HB3	2:J:283:THR:HG21	1.91	0.51
2:L:180:ASP:O	2:L:181:ILE:HG23	2.09	0.51
2:N:127:ARG:NH1	2:N:285:GLU:OE1	2.44	0.51
1:A:228:LEU:HD12	2:B:411:GLU:CD	2.30	0.51
2:D:148:GLN:HA	2:D:153:LYS:HA	1.93	0.51
2:D:391:PHE:HD2	2:D:392:PRO:CD	2.24	0.51
1:E:425:GLY:O	1:E:426:LEU:HB2	2.10	0.51
2:F:40:SER:O	2:F:44:ILE:HG13	2.10	0.51
2:F:207:LEU:HD21	2:F:237:ILE:HG23	1.93	0.51
1:G:298:ARG:HG2	1:G:299:THR:N	2.24	0.51
1:I:278:PHE:CD1	1:I:321:LYS:HD3	2.46	0.51
1:I:353:ILE:HG23	1:I:373:ILE:HG22	1.92	0.51
2:J:124:ALA:HA	2:J:287:ALA:CB	2.41	0.51
2:J:221:PRO:HB2	2:J:234:PRO:HG2	1.93	0.51
2:J:547:ARG:HG2	2:J:547:ARG:HH11	1.76	0.51
1:K:359:ASN:HD21	2:L:443:LYS:CE	2.23	0.51
2:L:67:VAL:CG1	2:L:68:PRO:HD2	2.39	0.51
2:L:236:ILE:N	2:L:236:ILE:CD1	2.72	0.51
2:L:401:ARG:HG2	2:L:477:ILE:HD12	1.92	0.51
1:M:246:MET:HG3	1:M:352:SER:HB3	1.93	0.51
1:M:466:MET:SD	1:M:471:ILE:HG23	2.49	0.51
2:N:17:ARG:CZ	2:N:19:TYR:HE1	2.23	0.51
2:N:157:VAL:HG21	2:N:263:ALA:N	2.26	0.51
1:O:210:TYR:HD2	1:O:212:PHE:CE2	2.28	0.51
1:O:328:THR:H	1:O:372:GLN:NE2	2.08	0.51
2:B:267:LEU:CD2	2:B:300:PRO:HB3	2.41	0.51
2:B:268:ASP:O	2:B:272:THR:HG22	2.10	0.51
2:B:406:ALA:HA	2:D:406:ALA:HA	1.93	0.51
2:B:575:THR:HB	2:B:576:MET:CE	2.41	0.51
1:C:360:GLU:C	1:C:362:LEU:H	2.14	0.51
1:C:404:ARG:HD3	1:C:429:TRP:CZ2	2.46	0.51
1:C:426:LEU:HD22	1:C:426:LEU:N	2.26	0.51
2:D:147:HIS:ND1	2:D:154:ARG:HG2	2.25	0.51
2:D:564:LEU:HD12	2:D:578:CYS:HB3	1.92	0.51
1:E:301:SER:HB2	1:E:312:TYR:O	2.10	0.51
2:F:118:ARG:CZ	2:F:257:GLY:HA2	2.41	0.51
2:F:324:PRO:HG3	2:F:344:GLY:O	2.11	0.51
2:H:58:SER:C	2:H:60:VAL:H	2.14	0.51
2:H:180:ASP:O	2:H:181:ILE:HG23	2.11	0.51
2:H:414:THR:CG2	2:H:457:GLY:HA3	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:566:PRO:CB	1:K:197:ILE:HG22	2.38	0.51
1:K:192:LEU:HD12	1:K:192:LEU:N	2.22	0.51
2:L:519:MET:HE1	2:L:522:LEU:HD12	1.92	0.51
2:N:71:ARG:NH2	2:N:366:GLU:OE2	2.37	0.51
1:O:464:PRO:HG2	1:O:465:THR:H	1.76	0.51
2:P:131:PHE:CE2	2:P:136:TYR:HA	2.46	0.51
2:P:426:LYS:HA	2:P:571:LYS:CE	2.40	0.51
2:B:17:ARG:CZ	2:B:19:TYR:HE1	2.24	0.51
1:C:81:PHE:CE2	1:C:132:MET:HB2	2.46	0.51
1:C:151:LEU:H	1:C:151:LEU:HD23	1.76	0.51
2:D:38:ILE:HD13	2:D:63:TYR:HE1	1.75	0.51
2:D:39:THR:O	2:D:62:LEU:HD23	2.09	0.51
2:D:162:HIS:CD2	2:D:231:LEU:HD12	2.45	0.51
1:E:271:ARG:C	1:E:272:ASP:OD1	2.50	0.51
2:F:45:ILE:HG22	2:F:45:ILE:O	2.10	0.51
1:I:282:PRO:HD2	2:J:437:VAL:HG13	1.92	0.51
2:J:123:ALA:HB1	2:J:253:ILE:O	2.10	0.51
2:J:180:ASP:O	2:J:181:ILE:HG23	2.10	0.51
2:J:305:ARG:HB2	2:J:351:ILE:HB	1.93	0.51
1:K:474:ILE:H	1:K:474:ILE:CD1	1.95	0.51
2:L:85:GLN:HB3	2:L:91:ILE:HG21	1.91	0.51
1:M:283:ALA:O	1:M:284:GLU:CB	2.50	0.51
2:N:133:LYS:H	2:N:133:LYS:CD	2.08	0.51
2:N:175:ALA:HA	2:N:220:TYR:O	2.10	0.51
2:P:90:ARG:HB3	2:P:90:ARG:HH11	1.76	0.51
2:P:91:ILE:HG12	2:P:92:LYS:N	2.24	0.51
2:P:115:ALA:O	2:P:116:LYS:HG3	2.10	0.51
2:P:181:ILE:HD11	2:P:194:ALA:HB2	1.92	0.51
2:P:280:ASN:HB3	2:P:283:THR:HG21	1.92	0.51
2:B:199:ASN:HA	2:B:202:LYS:HG3	1.92	0.51
2:B:565:HIS:CD2	2:B:567:ASP:HB2	2.46	0.51
2:B:576:MET:CB	2:B:577:PRO:HD2	2.41	0.51
2:F:38:ILE:HD13	2:F:63:TYR:HE1	1.74	0.51
2:F:179:SER:HA	2:F:193:THR:HG21	1.93	0.51
1:G:437:VAL:O	1:G:438:PHE:C	2.48	0.51
2:H:426:LYS:HA	2:H:571:LYS:CE	2.39	0.51
2:H:482:ILE:HG22	2:H:483:LYS:O	2.11	0.51
1:I:258:ASN:HD21	1:I:327:HIS:CE1	2.29	0.51
1:I:475:ARG:HB3	1:I:475:ARG:NH1	2.25	0.51
2:J:147:HIS:HE1	2:J:159:ILE:H	1.56	0.51
2:J:387:ILE:HG13	1:K:393:GLU:HG2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:71:ARG:CG	2:L:355:ARG:CZ	2.89	0.51
2:L:213:ILE:O	2:L:213:ILE:HG22	2.10	0.51
2:L:566:PRO:O	2:L:570:THR:HG23	2.10	0.51
2:N:123:ALA:HB1	2:N:253:ILE:O	2.10	0.51
2:N:126:LEU:N	2:N:126:LEU:CD2	2.74	0.51
2:P:139:PHE:CE2	2:P:161:THR:HG21	2.45	0.51
2:P:180:ASP:O	2:P:181:ILE:HG23	2.11	0.51
1:A:208:LYS:N	1:A:209:PRO:CD	2.74	0.51
1:A:393:GLU:HG2	2:D:387:ILE:HG13	1.93	0.51
1:A:438:PHE:CD1	1:A:454:VAL:HG22	2.46	0.51
2:B:174:THR:OG1	2:B:175:ALA:N	2.43	0.51
1:C:128:VAL:HG12	1:C:129:VAL:N	2.26	0.51
1:C:268:HIS:CD2	1:C:270:ALA:H	2.29	0.51
2:D:175:ALA:CB	2:D:219:LEU:HB3	2.38	0.51
2:F:508:PHE:HB2	2:F:563:VAL:CG2	2.41	0.51
2:F:548:CYS:O	1:G:212:PHE:HE2	1.93	0.51
1:G:367:LEU:HD22	1:G:367:LEU:N	2.25	0.51
2:J:146:LEU:HD13	2:J:266:VAL:HG13	1.92	0.51
1:K:356:VAL:C	1:K:357:PHE:CD1	2.84	0.51
1:M:283:ALA:HB1	1:M:322:ASN:H	1.76	0.51
2:N:565:HIS:HD2	2:N:567:ASP:HB2	1.75	0.51
1:O:372:GLN:NE2	3:O:509:PHE:N	2.58	0.51
2:P:508:PHE:HB2	2:P:563:VAL:CG2	2.40	0.51
2:P:535:ILE:HD12	2:P:535:ILE:N	2.07	0.51
1:A:282:PRO:CD	2:B:437:VAL:HG13	2.41	0.50
1:A:477:LEU:HD12	1:A:477:LEU:H	1.75	0.50
2:B:73:ASP:HA	2:B:273:MET:HE1	1.94	0.50
2:B:485:SER:C	2:B:486:ASN:HD22	2.14	0.50
2:D:420:GLN:HG3	2:D:448:GLN:HE21	1.76	0.50
1:E:258:ASN:HA	1:E:330:SER:CB	2.40	0.50
1:E:370:PHE:N	1:E:370:PHE:HD2	2.10	0.50
2:F:528:GLU:HG3	2:F:528:GLU:O	2.10	0.50
2:H:291:PHE:CE1	2:H:297:HIS:HD2	2.29	0.50
2:H:444:THR:HG22	2:H:447:PHE:CD1	2.46	0.50
1:M:423:HIS:C	1:M:425:GLY:H	2.14	0.50
2:N:113:GLU:HB3	2:N:219:LEU:HD13	1.92	0.50
2:N:201:TYR:C	2:N:203:THR:H	2.14	0.50
2:N:331:LEU:HD21	2:N:368:ALA:HB2	1.94	0.50
2:N:507:GLY:HA3	2:N:510:ILE:HG22	1.92	0.50
2:B:429:VAL:HG12	2:B:430:ASP:N	2.27	0.50
1:C:89:LEU:O	1:C:90:ALA:C	2.50	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:519:MET:HG3	2:D:533:TYR:CD1	2.46	0.50
2:F:431:ILE:H	2:F:431:ILE:CD1	1.99	0.50
2:F:497:LEU:HD23	2:F:497:LEU:C	2.32	0.50
2:H:67:VAL:CG1	2:H:68:PRO:HD2	2.41	0.50
2:H:154:ARG:HA	2:H:157:VAL:O	2.11	0.50
2:H:169:GLY:HA3	2:H:226:SER:CB	2.38	0.50
2:H:213:ILE:HG22	2:H:213:ILE:O	2.12	0.50
1:I:477:LEU:HD12	1:I:477:LEU:C	2.31	0.50
1:I:484:LEU:HG	2:J:465:ASN:ND2	2.27	0.50
2:J:167:LEU:HD13	2:J:171:PHE:CE2	2.45	0.50
2:J:576:MET:CB	2:J:577:PRO:HD2	2.41	0.50
1:K:185:ILE:C	1:K:187:LYS:H	2.15	0.50
2:L:201:TYR:C	2:L:203:THR:H	2.14	0.50
2:L:208:LYS:O	2:L:211:LEU:HD21	2.12	0.50
2:L:564:LEU:HD12	2:L:578:CYS:HB3	1.93	0.50
2:N:437:VAL:O	2:N:449:VAL:HG13	2.10	0.50
1:O:316:LEU:HD23	1:O:320:ARG:HG2	1.93	0.50
1:O:484:LEU:HG	2:P:465:ASN:CG	2.32	0.50
2:P:85:GLN:HB3	2:P:91:ILE:HG21	1.92	0.50
2:P:142:LEU:O	2:P:142:LEU:HD23	2.10	0.50
1:A:264:GLN:O	1:A:265:PRO:O	2.29	0.50
1:A:437:VAL:O	1:A:438:PHE:C	2.48	0.50
2:B:148:GLN:HA	2:B:153:LYS:HA	1.92	0.50
2:B:281:GLN:HG2	2:B:282:PHE:CD1	2.47	0.50
1:C:84:ILE:HB	1:C:89:LEU:HD22	1.92	0.50
2:D:154:ARG:HA	2:D:157:VAL:O	2.11	0.50
1:E:370:PHE:N	1:E:370:PHE:CD2	2.80	0.50
2:F:71:ARG:NH2	2:F:366:GLU:OE2	2.39	0.50
2:F:114:THR:O	2:F:117:ILE:HD12	2.10	0.50
1:G:259:PHE:CD2	1:G:271:ARG:HG2	2.47	0.50
1:G:373:ILE:HD13	1:G:459:LEU:HD11	1.93	0.50
2:H:508:PHE:HB2	2:H:563:VAL:CG2	2.41	0.50
1:I:494:ARG:C	1:I:496:ASP:H	2.14	0.50
2:J:60:VAL:HG12	2:J:61:VAL:N	2.26	0.50
2:L:391:PHE:CD2	2:L:392:PRO:HD2	2.39	0.50
2:N:543:PHE:CD2	2:N:562:GLY:HA3	2.46	0.50
2:P:77:LEU:HD23	2:P:77:LEU:C	2.32	0.50
2:P:414:THR:CG2	2:P:457:GLY:HA3	2.41	0.50
2:P:565:HIS:CD2	2:P:567:ASP:HB2	2.46	0.50
1:A:326:THR:O	1:A:356:VAL:HG11	2.12	0.50
2:B:175:ALA:CB	2:B:219:LEU:HB3	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:38:VAL:HG22	1:C:173:TYR:CD2	2.47	0.50
1:C:181:PHE:CD2	1:C:182:SER:N	2.79	0.50
1:C:298:ARG:HG3	1:C:298:ARG:NH1	2.25	0.50
2:D:58:SER:O	2:D:60:VAL:HG22	2.10	0.50
2:F:169:GLY:HA3	2:F:226:SER:CB	2.40	0.50
2:F:450:ALA:HB3	2:F:481:VAL:HG11	1.93	0.50
1:G:266:GLN:HE21	1:G:318:GLU:HB3	1.77	0.50
2:H:118:ARG:CZ	2:H:257:GLY:HA2	2.41	0.50
2:H:280:ASN:HB3	2:H:283:THR:HG21	1.93	0.50
2:J:38:ILE:HD13	2:J:63:TYR:HE1	1.75	0.50
2:J:132:THR:HG22	2:J:134:ASP:N	2.26	0.50
2:L:77:LEU:C	2:L:77:LEU:HD23	2.32	0.50
2:L:148:GLN:HA	2:L:153:LYS:HA	1.93	0.50
2:L:304:TYR:CE1	2:L:353:PRO:HD3	2.46	0.50
1:M:279:LEU:HD11	2:N:437:VAL:CG1	2.42	0.50
2:N:167:LEU:HD13	2:N:171:PHE:CE2	2.46	0.50
1:O:294:GLN:NE2	1:O:297:LYS:HD3	2.27	0.50
1:O:373:ILE:HG12	1:O:459:LEU:CD1	2.41	0.50
2:P:101:PRO:CG	2:P:105:ILE:HD13	2.42	0.50
1:C:79:ARG:HG2	1:C:79:ARG:NH1	2.26	0.50
1:C:404:ARG:HB2	1:C:429:TRP:CZ3	2.47	0.50
2:D:124:ALA:HB1	2:D:300:PRO:HD3	1.93	0.50
2:D:565:HIS:CD2	2:D:567:ASP:HB2	2.46	0.50
1:E:210:TYR:HB2	2:H:547:ARG:HH22	1.77	0.50
2:F:351:ILE:HD12	2:F:351:ILE:N	2.26	0.50
2:F:547:ARG:HG2	2:F:547:ARG:NH1	2.24	0.50
2:H:33:LEU:CD2	2:H:67:VAL:HG22	2.40	0.50
2:H:123:ALA:HB1	2:H:253:ILE:O	2.11	0.50
2:H:148:GLN:HA	2:H:153:LYS:HA	1.94	0.50
2:H:303:ALA:O	2:H:353:PRO:HB3	2.11	0.50
2:H:340:VAL:CG1	2:H:344:GLY:HA2	2.42	0.50
2:H:451:ARG:HH22	2:H:478:SER:HB3	1.76	0.50
1:I:207:PHE:N	1:I:207:PHE:CD2	2.80	0.50
2:L:90:ARG:HH11	2:L:90:ARG:CB	2.25	0.50
2:L:167:LEU:HD13	2:L:171:PHE:CE2	2.47	0.50
2:L:264:LYS:HD2	2:L:301:GLU:CD	2.31	0.50
2:L:351:ILE:HD12	2:L:351:ILE:N	2.26	0.50
2:L:495:ARG:HH11	2:L:495:ARG:HG3	1.76	0.50
1:M:370:PHE:N	1:M:370:PHE:CD1	2.79	0.50
1:O:247:PRO:HB3	2:P:391:PHE:CE1	2.46	0.50
1:O:437:VAL:O	1:O:438:PHE:C	2.48	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:451:ARG:HH22	2:P:478:SER:HB3	1.76	0.50
1:A:193:SER:HB2	1:A:195:GLU:OE1	2.11	0.50
1:A:471:ILE:HG23	1:A:472:ASN:N	2.27	0.50
2:B:189:THR:HG23	2:B:190:LYS:H	1.77	0.50
2:B:208:LYS:O	2:B:211:LEU:HD21	2.11	0.50
1:C:44:LEU:HD12	1:C:51:ILE:HG12	1.92	0.50
1:G:402:GLN:HB3	1:G:422:TYR:HB2	1.92	0.50
2:H:401:ARG:HG2	2:H:477:ILE:HD12	1.92	0.50
2:H:437:VAL:O	2:H:449:VAL:HG13	2.11	0.50
2:J:118:ARG:HB2	2:J:173:TYR:OH	2.11	0.50
2:J:122:VAL:HG23	2:J:299:PHE:CG	2.47	0.50
2:L:304:TYR:CD1	2:L:353:PRO:HD3	2.46	0.50
1:M:223:HIS:HB2	2:N:410:THR:HG23	1.93	0.50
1:M:246:MET:HG2	1:M:351:PHE:O	2.12	0.50
2:N:132:THR:CG2	2:N:133:LYS:N	2.74	0.50
2:N:185:PRO:HG2	2:N:188:LYS:CB	2.40	0.50
1:O:301:SER:HB2	1:O:312:TYR:O	2.12	0.50
1:O:420:PHE:HA	1:O:430:VAL:O	2.12	0.50
1:A:292:TYR:O	1:A:296:VAL:HG23	2.11	0.50
1:A:357:PHE:CE2	2:B:416:ALA:HB3	2.46	0.50
1:A:426:LEU:O	1:A:428:LYS:N	2.44	0.50
2:D:113:GLU:HB3	2:D:219:LEU:HD13	1.94	0.50
1:E:299:THR:HG21	1:E:305:TYR:CD1	2.47	0.50
1:E:494:ARG:HH11	1:E:494:ARG:HB2	1.77	0.50
2:F:446:GLU:O	2:F:447:PHE:CD2	2.65	0.50
1:G:208:LYS:O	1:G:208:LYS:HG2	2.11	0.50
1:G:471:ILE:HG22	1:G:472:ASN:N	2.26	0.50
2:H:576:MET:CB	2:H:577:PRO:HD2	2.41	0.50
2:J:40:SER:H	2:J:43:GLU:HB2	1.77	0.50
2:J:132:THR:HB	2:J:135:ARG:HG3	1.92	0.50
2:L:152:ARG:HD3	2:L:156:LEU:HD11	1.93	0.50
2:N:45:ILE:HG22	2:N:45:ILE:O	2.12	0.50
2:N:148:GLN:HA	2:N:153:LYS:HA	1.94	0.50
1:O:259:PHE:CE2	1:O:271:ARG:HG3	2.47	0.50
2:P:42:LYS:CG	2:P:43:GLU:N	2.74	0.50
2:P:208:LYS:O	2:P:211:LEU:HD21	2.12	0.50
2:P:245:THR:CG2	2:P:246:VAL:N	2.75	0.50
2:B:213:ILE:HG22	2:B:213:ILE:O	2.11	0.50
2:B:482:ILE:HG22	2:B:483:LYS:O	2.12	0.50
2:D:114:THR:O	2:D:117:ILE:HD12	2.12	0.50
2:D:304:TYR:CD1	2:D:353:PRO:HD3	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:258:ASN:HA	1:E:330:SER:HB3	1.93	0.50
1:E:281:ASP:HB2	2:F:438:HIS:CB	2.39	0.50
2:F:426:LYS:HA	2:F:571:LYS:CE	2.39	0.50
1:G:421:SER:HB2	1:G:432:VAL:HG11	1.93	0.50
1:G:438:PHE:CD1	1:G:454:VAL:HG22	2.46	0.50
2:H:511:ILE:HG22	2:H:561:LEU:HD21	1.93	0.50
2:J:148:GLN:HA	2:J:153:LYS:HA	1.94	0.50
2:J:174:THR:OG1	2:J:175:ALA:N	2.44	0.50
2:J:213:ILE:HG22	2:J:213:ILE:O	2.11	0.50
2:J:391:PHE:CD2	2:J:392:PRO:HD2	2.36	0.50
2:J:416:ALA:O	2:J:451:ARG:HG3	2.12	0.50
2:J:450:ALA:HB3	2:J:481:VAL:HG11	1.94	0.50
1:K:192:LEU:H	1:K:192:LEU:CD1	2.23	0.50
2:L:126:LEU:HD23	2:L:126:LEU:N	2.27	0.50
2:L:215:GLU:O	2:L:216:ASN:HB3	2.11	0.50
1:M:458:GLY:HA3	3:M:509:PHE:N	2.27	0.50
2:N:576:MET:CB	2:N:577:PRO:HD2	2.41	0.50
1:O:282:PRO:O	1:O:283:ALA:C	2.50	0.50
1:O:286:LEU:HB2	2:P:488:ASP:O	2.12	0.50
2:P:42:LYS:CG	2:P:43:GLU:H	2.24	0.50
2:P:217:LYS:HB3	2:P:218:PRO:CD	2.38	0.50
1:A:188:GLN:OE1	1:A:209:PRO:HD3	2.12	0.50
2:B:245:THR:CG2	2:B:246:VAL:N	2.74	0.50
1:C:113:ILE:HD12	1:C:125:VAL:CG1	2.42	0.50
1:C:253:GLU:OE1	1:C:257:TRP:HB2	2.12	0.50
1:C:479:GLY:HA3	2:D:415:PHE:CE1	2.46	0.50
2:F:280:ASN:HB3	2:F:283:THR:HG21	1.94	0.50
1:G:282:PRO:CD	2:H:437:VAL:HG13	2.40	0.50
2:H:122:VAL:HG23	2:H:299:PHE:CG	2.46	0.50
2:H:535:ILE:H	2:H:535:ILE:CD1	2.05	0.50
1:I:437:VAL:O	1:I:438:PHE:C	2.50	0.50
1:K:413:THR:HG21	1:K:436:GLY:HA3	1.94	0.50
1:K:458:GLY:HA3	3:K:509:PHE:HB2	1.92	0.50
1:K:471:ILE:H	1:K:471:ILE:CD1	2.20	0.50
2:L:154:ARG:HA	2:L:157:VAL:O	2.12	0.50
2:L:416:ALA:HA	2:L:451:ARG:HG3	1.93	0.50
1:M:259:PHE:O	1:M:261:ALA:N	2.45	0.50
2:N:91:ILE:HG12	2:N:92:LYS:N	2.26	0.50
2:N:147:HIS:CE1	2:N:159:ILE:HG12	2.47	0.50
2:N:215:GLU:O	2:N:216:ASN:HB3	2.11	0.50
2:P:108:LEU:HD21	2:P:173:TYR:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:324:PRO:HG3	2:P:344:GLY:O	2.12	0.50
1:A:443:LEU:HD11	1:A:454:VAL:HG13	1.94	0.49
2:B:565:HIS:HD2	2:B:567:ASP:HB2	1.78	0.49
1:C:88:GLY:HA3	1:C:124:ARG:HD3	1.92	0.49
2:D:508:PHE:HE1	2:D:562:GLY:CA	2.20	0.49
1:E:226:PRO:HG2	1:E:486:MET:HE1	1.94	0.49
2:F:507:GLY:HA3	2:F:510:ILE:HG22	1.94	0.49
1:G:343:LYS:HB2	1:G:344:PRO:HD2	1.88	0.49
1:G:438:PHE:HD1	1:G:454:VAL:HG22	1.76	0.49
2:H:350:GLU:O	2:H:352:PRO:HD3	2.11	0.49
1:I:253:GLU:OE1	1:I:257:TRP:HB2	2.12	0.49
2:J:175:ALA:CB	2:J:219:LEU:HB3	2.36	0.49
2:J:188:LYS:HE2	2:J:201:TYR:OH	2.12	0.49
2:J:414:THR:CG2	2:J:457:GLY:HA3	2.42	0.49
2:J:515:LEU:HD11	2:J:551:ILE:HG21	1.94	0.49
2:J:569:ILE:HD13	2:J:576:MET:O	2.12	0.49
2:L:6:VAL:CG2	2:L:11:LEU:HD12	2.42	0.49
2:L:71:ARG:HG2	2:L:355:ARG:NH2	2.27	0.49
2:L:124:ALA:HB1	2:L:300:PRO:HD3	1.94	0.49
2:N:124:ALA:HB1	2:N:300:PRO:HD3	1.93	0.49
2:N:126:LEU:HD21	2:N:251:ILE:HB	1.94	0.49
2:N:143:GLN:HG3	2:N:159:ILE:HD12	1.93	0.49
2:P:70:ASN:HB3	2:P:71:ARG:HD2	1.93	0.49
2:P:175:ALA:HA	2:P:220:TYR:O	2.12	0.49
1:A:214:ALA:C	1:A:216:GLY:H	2.15	0.49
2:B:201:TYR:C	2:B:203:THR:H	2.13	0.49
2:B:235:PRO:HB2	2:B:236:ILE:HD12	1.94	0.49
2:B:396:LEU:HD22	1:C:495:LEU:HD13	1.94	0.49
2:D:186:LEU:CD2	2:D:238:ASN:H	2.22	0.49
2:D:201:TYR:C	2:D:203:THR:H	2.14	0.49
1:E:437:VAL:HG13	1:E:455:ILE:HG22	1.95	0.49
2:F:177:ARG:HG2	2:F:178:PRO:CD	2.42	0.49
2:H:39:THR:O	2:H:62:LEU:HD23	2.12	0.49
2:H:179:SER:HA	2:H:193:THR:HG21	1.94	0.49
2:H:357:ASP:OD1	2:H:358:ILE:HD12	2.12	0.49
2:J:41:GLU:HA	2:J:44:ILE:HD12	1.93	0.49
2:J:549:ALA:HB2	1:K:212:PHE:HE2	1.77	0.49
1:K:224:LEU:HD22	2:L:401:ARG:HH12	1.72	0.49
2:P:404:MET:CE	2:P:497:LEU:HD21	2.42	0.49
2:B:132:THR:HG22	2:B:135:ARG:H	1.77	0.49
1:C:165:LEU:HD12	1:C:165:LEU:C	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:193:SER:O	1:C:197:ILE:CD1	2.60	0.49
1:C:325:ARG:HH21	1:C:325:ARG:CG	2.25	0.49
1:C:353:ILE:HG12	1:C:373:ILE:HB	1.94	0.49
2:D:349:ILE:HD13	2:D:364:ILE:HG21	1.94	0.49
1:E:474:ILE:O	1:E:475:ARG:HB2	2.11	0.49
2:F:183:PHE:CD2	2:F:230:VAL:HG11	2.47	0.49
2:F:513:GLY:HA3	1:G:217:VAL:O	2.13	0.49
1:G:469:TYR:CZ	1:G:493:CYS:HB2	2.47	0.49
2:H:90:ARG:HH11	2:H:90:ARG:CB	2.25	0.49
1:I:360:GLU:HA	2:J:443:LYS:HE3	1.94	0.49
1:K:343:LYS:CB	1:K:344:PRO:HD3	2.32	0.49
1:K:377:VAL:HG12	1:K:382:LEU:HD11	1.94	0.49
1:M:225:HIS:CD2	2:N:413:LEU:HB2	2.47	0.49
1:M:226:PRO:HG2	1:M:486:MET:CE	2.42	0.49
2:N:177:ARG:HG2	2:N:178:PRO:CD	2.43	0.49
2:N:584:ASN:ND2	2:N:587:PRO:HD3	2.27	0.49
1:O:236:GLN:O	1:O:240:GLU:HG3	2.11	0.49
1:O:251:PHE:H	2:P:493:ASN:HD21	1.60	0.49
2:P:515:LEU:HD11	2:P:551:ILE:CG2	2.42	0.49
1:A:316:LEU:HD23	1:A:320:ARG:HG2	1.94	0.49
2:B:127:ARG:NH1	2:B:285:GLU:OE1	2.45	0.49
2:B:132:THR:HG22	2:B:134:ASP:H	1.78	0.49
1:C:60:HIS:CE1	1:C:168:VAL:HB	2.46	0.49
1:C:233:GLN:OE1	1:C:497:ALA:HB1	2.12	0.49
1:E:248:THR:HG21	1:E:354:ASP:CB	2.42	0.49
1:E:328:THR:OG1	1:E:372:GLN:NE2	2.44	0.49
2:F:132:THR:HG22	2:F:135:ARG:H	1.76	0.49
1:G:423:HIS:HB3	1:G:427:LYS:HA	1.93	0.49
1:I:226:PRO:HG2	1:I:486:MET:CE	2.42	0.49
2:J:132:THR:HG22	2:J:135:ARG:H	1.77	0.49
2:L:175:ALA:HA	2:L:220:TYR:O	2.12	0.49
2:N:44:ILE:O	2:N:46:SER:N	2.46	0.49
2:N:291:PHE:CE1	2:N:297:HIS:HD2	2.30	0.49
2:P:420:GLN:NE2	2:P:431:ILE:HG21	2.27	0.49
2:P:515:LEU:HD23	2:P:515:LEU:C	2.33	0.49
1:A:413:THR:HG21	3:A:509:PHE:CZ	2.42	0.49
2:B:42:LYS:HG3	2:B:43:GLU:N	2.28	0.49
2:B:321:ARG:HH21	2:F:380:THR:HG21	1.78	0.49
2:B:547:ARG:HG2	2:B:547:ARG:HH11	1.77	0.49
1:C:23:SER:O	1:C:27:ALA:HB2	2.12	0.49
1:C:72:ARG:HB3	1:C:72:ARG:HH11	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:373:ILE:HG12	1:C:459:LEU:CD1	2.43	0.49
2:D:91:ILE:HG12	2:D:92:LYS:N	2.27	0.49
2:D:235:PRO:HB2	2:D:236:ILE:HD12	1.93	0.49
2:D:514:LEU:HD23	2:D:581:LEU:HD23	1.95	0.49
1:E:247:PRO:HB3	2:F:391:PHE:CE1	2.47	0.49
2:F:33:LEU:HD22	2:F:67:VAL:HG22	1.92	0.49
2:F:512:HIS:HE1	1:G:215:HIS:HA	1.77	0.49
1:G:266:GLN:HA	1:G:271:ARG:NH1	2.27	0.49
1:G:463:ARG:HA	1:G:466:MET:HE2	1.95	0.49
2:H:147:HIS:CE1	2:H:159:ILE:HG12	2.48	0.49
2:H:245:THR:CG2	2:H:246:VAL:N	2.76	0.49
2:J:304:TYR:CE1	2:J:353:PRO:HD3	2.47	0.49
1:K:324:LEU:O	1:K:325:ARG:C	2.50	0.49
2:L:91:ILE:HG12	2:L:92:LYS:N	2.26	0.49
2:N:566:PRO:O	2:N:570:THR:HG23	2.12	0.49
1:O:477:LEU:HD12	1:O:478:VAL:HG23	1.94	0.49
2:P:132:THR:HG22	2:P:134:ASP:N	2.27	0.49
2:P:350:GLU:O	2:P:352:PRO:HD3	2.12	0.49
2:B:462:ILE:HG23	2:B:472:LEU:CD1	2.36	0.49
2:B:543:PHE:CD2	2:B:562:GLY:HA3	2.47	0.49
1:C:328:THR:H	1:C:372:GLN:NE2	2.10	0.49
1:C:426:LEU:HD22	1:C:426:LEU:H	1.76	0.49
2:D:90:ARG:HB3	2:D:90:ARG:HH11	1.76	0.49
2:D:547:ARG:HG2	2:D:547:ARG:NH1	2.26	0.49
1:E:251:PHE:H	2:F:493:ASN:HD21	1.59	0.49
2:F:108:LEU:HD21	2:F:173:TYR:HB2	1.94	0.49
2:F:416:ALA:O	2:F:451:ARG:HG3	2.12	0.49
1:G:225:HIS:HE1	1:G:477:LEU:HD13	1.78	0.49
1:I:265:PRO:HD3	1:I:310:TYR:CZ	2.48	0.49
2:L:543:PHE:CD2	2:L:562:GLY:HA3	2.47	0.49
2:L:576:MET:CB	2:L:577:PRO:HD2	2.43	0.49
1:M:373:ILE:HD13	1:M:459:LEU:HD11	1.95	0.49
2:N:451:ARG:HH22	2:N:478:SER:HB3	1.76	0.49
1:O:264:GLN:O	1:O:271:ARG:NH2	2.45	0.49
1:O:468:LYS:HG2	1:O:495:LEU:HB3	1.95	0.49
1:A:374:GLU:OE1	3:A:509:PHE:HB2	2.12	0.49
2:B:15:LEU:CD1	2:B:19:TYR:HE2	2.25	0.49
2:B:123:ALA:HB1	2:B:253:ILE:O	2.11	0.49
2:B:201:TYR:C	2:B:203:THR:N	2.66	0.49
1:C:380:HIS:CD2	1:C:452:VAL:HG22	2.47	0.49
2:D:188:LYS:HE2	2:D:201:TYR:CE2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:494:ARG:HH11	1:E:494:ARG:HB3	1.78	0.49
2:F:42:LYS:HG2	2:F:58:SER:O	2.12	0.49
2:H:44:ILE:O	2:H:47:LYS:HG2	2.13	0.49
2:H:512:HIS:HA	2:H:561:LEU:HD11	1.93	0.49
1:I:247:PRO:HB3	2:J:391:PHE:CE1	2.48	0.49
1:I:350:TYR:HB2	1:I:376:VAL:CG1	2.42	0.49
2:J:115:ALA:O	2:J:116:LYS:HG3	2.12	0.49
1:K:316:LEU:HD23	1:K:320:ARG:HG2	1.95	0.49
2:L:126:LEU:HD21	2:L:251:ILE:HB	1.95	0.49
2:L:163:ASP:OD2	2:L:248:THR:HG23	2.12	0.49
2:L:185:PRO:HG2	2:L:188:LYS:CB	2.40	0.49
2:L:584:ASN:ND2	2:L:587:PRO:HD3	2.28	0.49
1:M:475:ARG:HH11	1:M:475:ARG:CG	2.26	0.49
2:N:122:VAL:CG2	2:N:299:PHE:CG	2.96	0.49
2:P:56:GLY:C	2:P:58:SER:H	2.15	0.49
1:A:255:SER:HB2	1:A:321:LYS:O	2.12	0.49
1:A:258:ASN:ND2	1:A:330:SER:HB3	2.25	0.49
1:A:294:GLN:NE2	1:A:297:LYS:HD3	2.27	0.49
1:A:406:LYS:HD2	2:B:29:PHE:CE1	2.47	0.49
1:C:27:ALA:O	1:C:32:MET:O	2.30	0.49
2:D:444:THR:HG21	2:D:446:GLU:HG3	1.94	0.49
1:E:267:GLN:HA	2:F:152:ARG:HD2	1.94	0.49
2:F:175:ALA:HA	2:F:220:TYR:O	2.12	0.49
1:G:471:ILE:CG2	1:G:473:ASN:O	2.61	0.49
2:L:132:THR:HG22	2:L:134:ASP:N	2.27	0.49
1:M:243:PHE:CD2	1:M:349:LYS:HB3	2.48	0.49
1:M:342:LYS:O	1:M:343:LYS:C	2.50	0.49
2:N:420:GLN:HG2	2:N:449:VAL:HG23	1.95	0.49
2:P:122:VAL:HG23	2:P:299:PHE:CG	2.47	0.49
2:P:213:ILE:HG22	2:P:213:ILE:O	2.11	0.49
2:P:535:ILE:H	2:P:535:ILE:CD1	2.01	0.49
1:A:187:LYS:HE3	1:A:187:LYS:CA	2.42	0.49
2:B:126:LEU:CD2	2:B:251:ILE:HB	2.43	0.49
1:C:211:ASN:HD21	1:C:213:LEU:HB2	1.78	0.49
1:C:438:PHE:HD1	1:C:454:VAL:HG22	1.77	0.49
2:D:245:THR:CG2	2:D:246:VAL:N	2.75	0.49
2:F:122:VAL:CG2	2:F:299:PHE:CD2	2.96	0.49
2:F:393:LEU:HD22	2:F:495:ARG:NH1	2.28	0.49
1:G:425:GLY:O	1:G:427:LYS:N	2.46	0.49
2:H:115:ALA:O	2:H:116:LYS:HG3	2.13	0.49
2:H:416:ALA:HA	2:H:451:ARG:HG3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:565:HIS:HD2	2:H:567:ASP:HB2	1.78	0.49
2:J:385:TYR:CE1	1:K:349:LYS:HE2	2.48	0.49
1:K:235:ARG:NH2	2:L:390:GLN:OE1	2.45	0.49
1:K:284:GLU:HG2	1:K:320:ARG:HB3	1.95	0.49
2:L:565:HIS:CD2	2:L:567:ASP:HB2	2.47	0.49
1:M:264:GLN:HG2	1:M:411:PRO:HB2	1.94	0.49
1:M:328:THR:H	1:M:372:GLN:NE2	2.10	0.49
1:M:438:PHE:CD1	1:M:454:VAL:HG22	2.48	0.49
2:N:114:THR:O	2:N:117:ILE:HD12	2.13	0.49
2:N:234:PRO:HB2	2:N:235:PRO:CD	2.25	0.49
2:N:479:ASP:HA	2:N:494:TYR:O	2.12	0.49
2:N:569:ILE:HD13	2:N:576:MET:O	2.13	0.49
1:O:262:LEU:O	1:O:412:TYR:HB3	2.13	0.49
1:O:276:THR:HG23	1:O:326:THR:HG21	1.95	0.49
1:O:285:ALA:O	1:O:286:LEU:HG	2.13	0.49
2:P:40:SER:C	2:P:42:LYS:H	2.15	0.49
2:P:281:GLN:HG2	2:P:282:PHE:CD1	2.48	0.49
1:A:216:GLY:HA3	2:D:512:HIS:ND1	2.27	0.49
1:C:64:THR:CG2	1:C:65:ALA:H	2.26	0.49
1:C:139:ARG:HD2	1:C:155:GLU:OE1	2.12	0.49
1:C:165:LEU:C	1:C:165:LEU:CD1	2.82	0.49
1:C:197:ILE:HD12	1:C:197:ILE:N	2.28	0.49
2:D:82:ARG:HD2	2:D:94:PRO:HG3	1.95	0.49
2:D:576:MET:H	2:D:576:MET:HE2	1.78	0.49
1:E:307:SER:CB	1:E:441:GLU:OE1	2.61	0.49
1:E:328:THR:H	1:E:372:GLN:NE2	2.11	0.49
1:E:343:LYS:CB	1:E:344:PRO:HD3	2.30	0.49
2:F:90:ARG:HH11	2:F:90:ARG:CB	2.26	0.49
2:F:148:GLN:HA	2:F:153:LYS:HA	1.95	0.49
1:G:192:LEU:HD12	1:G:207:PHE:CD1	2.48	0.49
2:H:175:ALA:HA	2:H:220:TYR:O	2.13	0.49
2:H:234:PRO:CB	2:H:235:PRO:HD3	2.28	0.49
1:I:212:PHE:CE1	2:L:549:ALA:HB2	2.48	0.49
2:J:128:ASN:HA	2:J:249:ARG:HD3	1.95	0.49
2:J:201:TYR:C	2:J:203:THR:H	2.15	0.49
2:J:431:ILE:H	2:J:431:ILE:CD1	2.01	0.49
2:J:547:ARG:HG2	2:J:547:ARG:NH1	2.28	0.49
1:K:328:THR:H	1:K:372:GLN:NE2	2.11	0.49
1:K:342:LYS:O	1:K:343:LYS:C	2.51	0.49
2:L:401:ARG:HD2	2:L:411:GLU:OE2	2.13	0.49
2:N:118:ARG:HB2	2:N:173:TYR:OH	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:316:LEU:HD21	1:O:320:ARG:HD3	1.95	0.49
1:O:364:ALA:O	1:O:366:HIS:N	2.39	0.49
2:P:146:LEU:HD13	2:P:266:VAL:HG13	1.93	0.49
2:P:154:ARG:HA	2:P:157:VAL:O	2.13	0.49
1:A:413:THR:HG21	1:A:436:GLY:HA3	1.93	0.48
1:A:492:LEU:C	1:A:494:ARG:N	2.66	0.48
1:C:75:SER:O	1:C:79:ARG:HB2	2.13	0.48
1:C:100:GLY:O	1:C:101:LYS:C	2.51	0.48
2:D:132:THR:HB	2:D:135:ARG:HG3	1.95	0.48
2:D:152:ARG:HD3	2:D:156:LEU:HD11	1.94	0.48
2:F:82:ARG:HD2	2:F:94:PRO:HG3	1.95	0.48
2:F:131:PHE:CE2	2:F:136:TYR:HA	2.48	0.48
2:F:179:SER:N	2:F:195:CYS:HB2	2.27	0.48
2:F:308:MET:HE3	2:F:309:VAL:CA	2.42	0.48
1:G:425:GLY:O	1:G:427:LYS:HG3	2.13	0.48
1:K:281:ASP:C	1:K:283:ALA:N	2.67	0.48
2:L:62:LEU:N	2:L:62:LEU:CD2	2.76	0.48
2:L:129:ILE:HD12	2:L:251:ILE:CD1	2.43	0.48
2:N:340:VAL:CG1	2:N:344:GLY:HA2	2.43	0.48
1:O:281:ASP:CB	1:O:282:PRO:CD	2.90	0.48
2:P:291:PHE:CE1	2:P:297:HIS:HD2	2.32	0.48
2:P:404:MET:HE1	2:P:497:LEU:HD21	1.95	0.48
1:A:328:THR:OG1	1:A:372:GLN:NE2	2.45	0.48
1:C:471:ILE:HG22	1:C:473:ASN:N	2.28	0.48
2:D:401:ARG:HD2	2:D:411:GLU:OE2	2.13	0.48
2:H:126:LEU:HD23	2:H:126:LEU:N	2.28	0.48
2:H:532:GLY:O	2:H:553:ALA:HA	2.13	0.48
1:I:296:VAL:O	1:I:300:HIS:HB2	2.12	0.48
1:I:463:ARG:O	1:I:466:MET:HB2	2.12	0.48
2:J:132:THR:HB	2:J:135:ARG:CG	2.43	0.48
2:J:235:PRO:HB2	2:J:236:ILE:HD12	1.95	0.48
1:K:474:ILE:C	1:K:476:GLU:N	2.65	0.48
2:L:115:ALA:O	2:L:116:LYS:HG3	2.13	0.48
2:N:142:LEU:HD23	2:N:142:LEU:C	2.33	0.48
1:O:438:PHE:HD1	1:O:454:VAL:HG22	1.78	0.48
2:P:188:LYS:HE2	2:P:201:TYR:CE2	2.48	0.48
1:A:491:PRO:O	1:A:493:CYS:N	2.46	0.48
2:B:115:ALA:O	2:B:116:LYS:HG3	2.13	0.48
2:B:177:ARG:HG2	2:B:178:PRO:CD	2.43	0.48
1:C:342:LYS:O	1:C:343:LYS:C	2.51	0.48
1:E:342:LYS:O	1:E:343:LYS:C	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:537:ALA:HB2	1:G:212:PHE:HD2	1.76	0.48
1:G:288:LEU:HB3	1:G:293:VAL:HG21	1.96	0.48
2:H:201:TYR:C	2:H:203:THR:N	2.67	0.48
2:J:27:LEU:HD12	2:J:84:LEU:HD13	1.95	0.48
2:J:479:ASP:HA	2:J:494:TYR:O	2.12	0.48
2:J:549:ALA:HB2	1:K:212:PHE:CE2	2.49	0.48
1:K:279:LEU:CD2	1:K:323:LEU:HA	2.43	0.48
1:K:458:GLY:N	3:K:509:PHE:HB2	2.27	0.48
2:L:188:LYS:HE2	2:L:201:TYR:CE2	2.48	0.48
2:L:565:HIS:HD2	2:L:567:ASP:HB2	1.78	0.48
2:N:62:LEU:HD23	2:N:62:LEU:N	2.28	0.48
1:O:477:LEU:HA	1:O:482:VAL:CB	2.42	0.48
2:P:70:ASN:HD22	2:P:71:ARG:CZ	2.26	0.48
2:P:126:LEU:N	2:P:126:LEU:CD2	2.76	0.48
1:A:343:LYS:CB	1:A:344:PRO:HD3	2.34	0.48
1:A:349:LYS:HG2	1:A:377:VAL:HG22	1.94	0.48
2:B:132:THR:CG2	2:B:133:LYS:N	2.77	0.48
2:B:357:ASP:OD1	2:B:358:ILE:HD12	2.12	0.48
1:C:189:GLU:HB3	1:C:207:PHE:HA	1.94	0.48
1:C:277:PHE:CE1	1:C:359:ASN:HA	2.48	0.48
1:C:499:PRO:O	1:C:501:PRO:HD3	2.14	0.48
2:D:108:LEU:HD21	2:D:173:TYR:HB2	1.95	0.48
2:D:146:LEU:HD13	2:D:266:VAL:HG13	1.96	0.48
1:E:210:TYR:HD2	1:E:212:PHE:CE1	2.31	0.48
2:F:414:THR:CG2	2:F:457:GLY:HA3	2.44	0.48
1:G:228:LEU:HD12	2:H:411:GLU:OE2	2.14	0.48
2:H:167:LEU:HD13	2:H:171:PHE:CE2	2.48	0.48
2:H:174:THR:OG1	2:H:175:ALA:N	2.46	0.48
1:I:268:HIS:HD2	1:I:270:ALA:HB3	1.77	0.48
2:J:103:GLY:O	2:J:105:ILE:N	2.44	0.48
2:J:154:ARG:HA	2:J:157:VAL:O	2.12	0.48
2:J:308:MET:HE3	2:J:309:VAL:CA	2.43	0.48
2:L:146:LEU:HD13	2:L:266:VAL:HG13	1.94	0.48
1:M:324:LEU:O	1:M:325:ARG:C	2.52	0.48
2:N:85:GLN:HB3	2:N:91:ILE:HG21	1.94	0.48
2:N:122:VAL:HG22	2:N:123:ALA:N	2.29	0.48
2:N:439:ILE:HD12	2:N:439:ILE:N	2.27	0.48
1:O:223:HIS:HB2	2:P:410:THR:HG23	1.96	0.48
1:O:327:HIS:CA	1:O:356:VAL:HG11	2.40	0.48
1:O:349:LYS:HG2	1:O:377:VAL:HG22	1.95	0.48
2:P:147:HIS:ND1	2:P:154:ARG:HG2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:208:LYS:N	1:A:209:PRO:HD3	2.28	0.48
1:A:267:GLN:HA	2:B:152:ARG:NH1	2.29	0.48
1:C:74:GLY:HA2	1:C:137:GLN:CG	2.43	0.48
1:C:147:GLN:O	1:C:149:GLU:N	2.42	0.48
1:C:223:HIS:HB2	2:D:410:THR:HG23	1.95	0.48
1:C:479:GLY:CA	2:D:415:PHE:CE1	2.95	0.48
2:D:208:LYS:O	2:D:211:LEU:HD21	2.13	0.48
2:F:535:ILE:H	2:F:535:ILE:CD1	2.12	0.48
1:G:342:LYS:O	1:G:343:LYS:C	2.51	0.48
2:H:533:TYR:CD2	2:H:533:TYR:N	2.81	0.48
1:I:289:PRO:O	1:I:292:TYR:N	2.45	0.48
2:J:514:LEU:HD23	2:J:581:LEU:HD23	1.94	0.48
1:K:279:LEU:HD23	1:K:279:LEU:N	2.28	0.48
1:K:316:LEU:HD21	1:K:320:ARG:HD3	1.95	0.48
2:L:41:GLU:OE1	2:L:45:ILE:HD11	2.13	0.48
1:M:275:ASP:O	1:M:276:THR:HG23	2.13	0.48
1:M:283:ALA:HA	1:M:322:ASN:CB	2.43	0.48
2:P:357:ASP:O	2:P:359:ILE:HG23	2.13	0.48
2:P:517:ARG:CZ	2:P:521:LEU:HD21	2.43	0.48
2:B:154:ARG:HA	2:B:157:VAL:O	2.14	0.48
2:B:331:LEU:HD21	2:B:368:ALA:HB2	1.96	0.48
2:F:180:ASP:O	2:F:181:ILE:HG23	2.14	0.48
2:F:264:LYS:HD2	2:F:301:GLU:CD	2.34	0.48
1:G:195:GLU:CA	1:G:198:SER:HB3	2.36	0.48
1:G:262:LEU:HA	1:G:442:MET:HG3	1.94	0.48
1:I:298:ARG:HG3	1:I:298:ARG:NH1	2.28	0.48
1:I:492:LEU:CD2	2:L:399:LEU:HB3	2.43	0.48
2:J:139:PHE:CE2	2:J:161:THR:HG21	2.48	0.48
2:J:508:PHE:HB2	2:J:563:VAL:CG2	2.44	0.48
2:L:547:ARG:HG2	2:L:547:ARG:NH1	2.28	0.48
2:N:20:THR:HB	2:N:23:GLU:HG3	1.96	0.48
1:O:197:ILE:O	1:O:197:ILE:HG22	2.14	0.48
1:O:235:ARG:NH1	1:O:245:GLU:OE1	2.46	0.48
1:O:328:THR:OG1	1:O:372:GLN:NE2	2.46	0.48
1:O:438:PHE:CD1	1:O:454:VAL:HG22	2.48	0.48
2:P:480:ILE:HG12	2:P:496:HIS:NE2	2.28	0.48
2:B:103:GLY:O	2:B:105:ILE:N	2.42	0.48
2:B:569:ILE:HD12	2:B:569:ILE:O	2.13	0.48
1:C:40:ALA:C	1:C:42:LYS:N	2.67	0.48
2:D:143:GLN:HG3	2:D:159:ILE:HD12	1.96	0.48
2:D:271:VAL:HG21	2:D:284:VAL:CG1	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:210:TYR:HB2	2:H:547:ARG:NH2	2.29	0.48
1:G:204:ASP:HB3	1:G:206:PRO:HD2	1.96	0.48
1:G:266:GLN:HE21	1:G:318:GLU:CB	2.27	0.48
1:G:423:HIS:HB2	1:G:427:LYS:HA	1.94	0.48
2:H:264:LYS:HD2	2:H:301:GLU:CD	2.34	0.48
2:H:526:PRO:HA	2:H:533:TYR:CE2	2.48	0.48
1:I:367:LEU:HD11	1:I:478:VAL:HB	1.96	0.48
2:J:90:ARG:HH11	2:J:90:ARG:CB	2.26	0.48
2:J:416:ALA:HA	2:J:451:ARG:HG3	1.95	0.48
2:J:575:THR:HB	2:J:576:MET:CE	2.43	0.48
1:K:255:SER:HB2	1:K:321:LYS:O	2.13	0.48
1:K:325:ARG:NH1	1:K:354:ASP:OD1	2.47	0.48
1:K:359:ASN:HD21	2:L:443:LYS:CD	2.27	0.48
1:K:422:TYR:CD2	1:K:422:TYR:O	2.66	0.48
2:L:70:ASN:HD22	2:L:71:ARG:CZ	2.26	0.48
2:L:485:SER:C	2:L:486:ASN:HD22	2.17	0.48
2:L:508:PHE:HB2	2:L:563:VAL:CG2	2.44	0.48
1:M:353:ILE:HG23	1:M:373:ILE:HG22	1.95	0.48
2:N:103:GLY:O	2:N:105:ILE:N	2.41	0.48
2:N:446:GLU:O	2:N:447:PHE:CD2	2.67	0.48
1:O:449:PRO:HB2	1:O:451:ASN:OD1	2.14	0.48
2:P:201:TYR:C	2:P:203:THR:H	2.16	0.48
2:P:355:ARG:HB3	2:P:358:ILE:HD13	1.96	0.48
2:B:547:ARG:HG2	2:B:547:ARG:NH1	2.29	0.48
1:C:199:SER:OG	1:C:200:GLY:N	2.47	0.48
1:C:287:GLN:HG3	1:C:288:LEU:N	2.28	0.48
1:C:289:PRO:O	1:C:293:VAL:HG23	2.13	0.48
2:D:493:ASN:HD22	2:D:493:ASN:N	2.11	0.48
2:D:561:LEU:HD23	2:D:562:GLY:N	2.29	0.48
2:F:512:HIS:HA	2:F:561:LEU:HD11	1.96	0.48
2:F:566:PRO:O	2:F:570:THR:HG23	2.14	0.48
2:H:124:ALA:HB1	2:H:300:PRO:HD3	1.95	0.48
1:I:286:LEU:O	1:I:287:GLN:HB2	2.13	0.48
1:I:325:ARG:HH21	1:I:325:ARG:CG	2.24	0.48
2:J:85:GLN:HB3	2:J:91:ILE:HG21	1.95	0.48
1:K:410:ASN:HB2	1:K:413:THR:OG1	2.14	0.48
2:L:126:LEU:CG	2:L:129:ILE:HD11	2.35	0.48
2:L:245:THR:CG2	2:L:246:VAL:N	2.77	0.48
1:M:251:PHE:H	2:N:493:ASN:HD21	1.61	0.48
1:M:328:THR:OG1	1:M:372:GLN:NE2	2.46	0.48
1:M:373:ILE:CG2	1:M:461:LEU:HD23	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:183:PHE:CD2	2:N:230:VAL:HG11	2.48	0.48
2:N:497:LEU:HD23	2:N:497:LEU:C	2.33	0.48
1:O:229:LYS:CE	1:O:491:PRO:O	2.59	0.48
1:O:474:ILE:H	1:O:474:ILE:CD1	2.19	0.48
1:O:480:HIS:CD2	1:O:480:HIS:N	2.81	0.48
1:A:196:MET:O	1:A:202:TRP:HD1	1.97	0.48
1:A:323:LEU:C	1:A:323:LEU:HD12	2.34	0.48
1:A:410:ASN:HB2	1:A:413:THR:OG1	2.14	0.48
1:C:179:SER:C	1:C:181:PHE:H	2.15	0.48
1:C:262:LEU:O	1:C:412:TYR:HB3	2.14	0.48
1:C:474:ILE:HG13	1:C:478:VAL:HG23	1.96	0.48
2:D:470:LEU:HB2	2:D:471:PRO:HD3	1.94	0.48
2:F:404:MET:CE	2:F:497:LEU:HD21	2.44	0.48
2:F:570:THR:CG2	1:G:197:ILE:HG22	2.43	0.48
1:G:206:PRO:O	1:G:207:PHE:O	2.32	0.48
1:G:226:PRO:HG2	1:G:486:MET:HE1	1.96	0.48
2:H:126:LEU:CG	2:H:129:ILE:HD11	2.35	0.48
1:I:281:ASP:OD2	2:J:483:LYS:HD3	2.13	0.48
1:I:373:ILE:CG2	1:I:461:LEU:HD23	2.43	0.48
1:I:469:TYR:HB3	1:I:471:ILE:HG12	1.96	0.48
2:J:360:HIS:CG	2:J:361:ALA:N	2.82	0.48
1:K:235:ARG:NH1	1:K:245:GLU:OE1	2.47	0.48
2:L:82:ARG:HD2	2:L:94:PRO:HG3	1.95	0.48
2:L:198:MET:SD	2:L:220:TYR:HE2	2.37	0.48
1:M:301:SER:HB2	1:M:312:TYR:O	2.14	0.48
2:N:1:MET:O	2:N:1:MET:HG3	2.14	0.48
2:N:73:ASP:HA	2:N:273:MET:HE1	1.96	0.48
2:N:480:ILE:C	2:N:480:ILE:HD12	2.33	0.48
1:O:218:LEU:HD12	1:O:219:PRO:HD2	1.95	0.48
1:O:281:ASP:HB3	2:P:438:HIS:H	1.78	0.48
2:P:124:ALA:HB1	2:P:300:PRO:HD3	1.96	0.48
2:P:482:ILE:HG22	2:P:483:LYS:O	2.14	0.48
2:B:324:PRO:HG3	2:B:344:GLY:O	2.13	0.48
1:C:365:THR:HG21	1:C:474:ILE:H	1.78	0.48
2:D:48:GLU:CD	2:D:49:GLN:HE21	2.17	0.48
2:D:201:TYR:C	2:D:203:THR:N	2.67	0.48
2:D:391:PHE:C	2:D:391:PHE:CD2	2.87	0.48
2:D:525:PRO:O	2:D:532:GLY:HA3	2.14	0.48
1:E:494:ARG:CB	1:E:494:ARG:NH1	2.76	0.48
2:F:127:ARG:NH1	2:F:285:GLU:OE1	2.47	0.48
2:F:565:HIS:HD2	2:F:567:ASP:HB2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:20:THR:HB	2:J:23:GLU:HG3	1.96	0.48
2:J:101:PRO:CG	2:J:105:ILE:HD13	2.41	0.48
1:K:477:LEU:HD23	1:K:486:MET:CE	2.43	0.48
1:M:279:LEU:HD23	1:M:283:ALA:HA	1.94	0.48
1:M:377:VAL:HG12	1:M:382:LEU:HD11	1.95	0.48
1:M:382:LEU:HA	1:M:386:HIS:ND1	2.28	0.48
2:N:105:ILE:O	2:N:106:GLN:C	2.52	0.48
2:N:401:ARG:HD2	2:N:411:GLU:OE2	2.13	0.48
1:O:421:SER:HB3	1:O:432:VAL:HG11	1.95	0.48
1:A:342:LYS:O	1:A:343:LYS:C	2.53	0.47
2:D:197:LEU:HA	2:D:200:ILE:HG12	1.95	0.47
1:E:268:HIS:CE1	1:E:411:PRO:HG2	2.49	0.47
2:F:309:VAL:HG23	2:F:349:ILE:HD12	1.96	0.47
2:F:543:PHE:CD2	2:F:562:GLY:HA3	2.49	0.47
2:H:44:ILE:O	2:H:45:ILE:C	2.53	0.47
2:H:60:VAL:O	2:H:62:LEU:HD22	2.14	0.47
2:H:190:LYS:HB3	2:H:191:GLU:H	1.49	0.47
2:H:340:VAL:HG11	2:H:344:GLY:HA2	1.96	0.47
2:H:569:ILE:HD12	2:H:569:ILE:O	2.14	0.47
1:I:342:LYS:O	1:I:343:LYS:C	2.52	0.47
1:I:373:ILE:HG12	1:I:459:LEU:CD1	2.44	0.47
2:L:61:VAL:CG1	2:L:62:LEU:N	2.77	0.47
1:M:238:PHE:HE1	1:M:373:ILE:HD12	1.79	0.47
1:M:402:GLN:HB3	1:M:422:TYR:HB2	1.95	0.47
1:M:414:GLU:CB	1:M:415:PRO:CD	2.79	0.47
2:N:201:TYR:C	2:N:203:THR:N	2.67	0.47
2:N:414:THR:HB	2:N:451:ARG:NH1	2.29	0.47
2:P:15:LEU:HD13	2:P:19:TYR:HE2	1.78	0.47
2:P:132:THR:HG22	2:P:135:ARG:H	1.78	0.47
1:A:193:SER:OG	1:A:196:MET:HG3	2.13	0.47
1:A:207:PHE:CZ	2:D:544:PHE:CZ	3.02	0.47
1:A:316:LEU:HD21	1:A:320:ARG:HD3	1.95	0.47
1:A:370:PHE:HB2	1:A:462:GLU:OE2	2.13	0.47
2:B:67:VAL:CG1	2:B:68:PRO:HD2	2.44	0.47
2:D:67:VAL:CG1	2:D:68:PRO:HD2	2.40	0.47
2:D:515:LEU:HD11	2:D:551:ILE:HD12	1.95	0.47
1:E:194:PRO:HA	1:E:197:ILE:HD12	1.96	0.47
1:E:196:MET:CE	1:E:202:TRP:HB2	2.44	0.47
1:E:477:LEU:CD1	1:E:478:VAL:HG22	2.44	0.47
2:F:576:MET:HB3	2:F:577:PRO:CD	2.43	0.47
1:I:362:LEU:HD23	1:I:362:LEU:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:359:ASN:ND2	2:L:443:LYS:CE	2.77	0.47
2:L:201:TYR:C	2:L:203:THR:N	2.68	0.47
1:M:259:PHE:O	1:M:262:LEU:N	2.46	0.47
1:M:480:HIS:CD2	1:M:480:HIS:H	2.32	0.47
2:N:308:MET:HA	2:N:347:ILE:O	2.13	0.47
2:P:147:HIS:CE1	2:P:159:ILE:HG12	2.48	0.47
1:A:200:GLY:O	1:A:203:ARG:HB2	2.14	0.47
1:A:262:LEU:O	1:A:412:TYR:HB3	2.15	0.47
1:A:327:HIS:HA	1:A:356:VAL:HG11	1.96	0.47
2:B:495:ARG:HG3	2:B:495:ARG:HH11	1.79	0.47
2:B:517:ARG:HG3	2:B:521:LEU:HD23	1.96	0.47
1:C:140:LEU:O	1:C:142:LEU:N	2.48	0.47
1:C:423:HIS:CD2	1:C:426:LEU:HD23	2.49	0.47
2:D:126:LEU:CG	2:D:129:ILE:HD11	2.36	0.47
2:D:400:LEU:HD21	2:D:522:LEU:HD21	1.96	0.47
2:F:3:THR:HG21	2:F:64:LYS:HG3	1.97	0.47
2:F:249:ARG:C	2:F:250:ASN:HD22	2.18	0.47
2:H:198:MET:SD	2:H:220:TYR:HE2	2.37	0.47
2:J:8:ARG:CZ	2:J:61:VAL:HG21	2.44	0.47
2:J:462:ILE:HG23	2:J:472:LEU:CD1	2.38	0.47
2:J:584:ASN:O	2:J:587:PRO:HD2	2.15	0.47
3:K:509:PHE:CG	3:K:509:PHE:OXT	2.66	0.47
1:M:343:LYS:CB	1:M:344:PRO:CD	2.79	0.47
2:N:131:PHE:CD2	2:N:136:TYR:HA	2.49	0.47
1:O:342:LYS:O	1:O:343:LYS:C	2.52	0.47
2:P:132:THR:HB	2:P:135:ARG:HG3	1.96	0.47
1:A:246:MET:HG2	1:A:351:PHE:O	2.14	0.47
2:B:41:GLU:OE1	2:B:44:ILE:HG21	2.15	0.47
2:B:291:PHE:CE1	2:B:297:HIS:HD2	2.33	0.47
2:D:40:SER:HB2	2:D:60:VAL:O	2.13	0.47
1:E:255:SER:HB2	1:E:321:LYS:O	2.14	0.47
2:F:41:GLU:HB3	2:F:58:SER:HB2	1.96	0.47
1:G:189:GLU:OE1	1:G:206:PRO:HB3	2.14	0.47
1:I:373:ILE:HD13	1:I:459:LEU:HD11	1.95	0.47
2:J:71:ARG:CG	2:J:355:ARG:NH1	2.77	0.47
2:J:126:LEU:N	2:J:126:LEU:CD2	2.77	0.47
2:J:201:TYR:C	2:J:203:THR:N	2.68	0.47
1:K:243:PHE:CD2	1:K:349:LYS:HB3	2.49	0.47
2:N:118:ARG:CZ	2:N:257:GLY:HA2	2.44	0.47
2:N:271:VAL:HG21	2:N:284:VAL:CG1	2.44	0.47
1:O:449:PRO:HG2	1:O:452:VAL:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:112:TRP:CD2	1:C:132:MET:HE1	2.49	0.47
1:C:229:LYS:HE2	1:C:469:TYR:OH	2.15	0.47
1:C:268:HIS:HD2	1:C:270:ALA:H	1.63	0.47
1:C:395:PHE:CE2	1:C:432:VAL:HG22	2.49	0.47
2:D:132:THR:HG22	2:D:134:ASP:H	1.79	0.47
1:E:217:VAL:O	2:H:513:GLY:HA3	2.14	0.47
1:E:467:ILE:C	1:E:469:TYR:N	2.64	0.47
2:F:437:VAL:O	2:F:449:VAL:HG13	2.14	0.47
2:F:508:PHE:HE1	2:F:562:GLY:CA	2.20	0.47
1:G:420:PHE:CE2	1:G:431:GLU:HB2	2.50	0.47
2:H:101:PRO:CG	2:H:105:ILE:HD13	2.44	0.47
2:H:414:THR:HB	2:H:451:ARG:NH1	2.29	0.47
2:H:446:GLU:O	2:H:447:PHE:CD2	2.68	0.47
2:J:147:HIS:O	2:J:151:CYS:HB2	2.14	0.47
1:K:301:SER:HB2	1:K:312:TYR:O	2.14	0.47
2:L:41:GLU:OE2	2:L:44:ILE:HG21	2.14	0.47
2:L:122:VAL:CG2	2:L:299:PHE:CD2	2.98	0.47
1:M:253:GLU:OE1	1:M:257:TRP:HB2	2.15	0.47
1:M:264:GLN:OE1	1:M:412:TYR:HE2	1.97	0.47
2:N:132:THR:HB	2:N:135:ARG:HG3	1.97	0.47
2:N:420:GLN:HG2	2:N:449:VAL:CG2	2.45	0.47
1:O:437:VAL:HG13	1:O:455:ILE:HG22	1.96	0.47
1:A:238:PHE:HE1	1:A:373:ILE:HD12	1.79	0.47
1:A:325:ARG:O	1:A:356:VAL:HG13	2.14	0.47
1:A:494:ARG:NH2	2:D:390:GLN:HE22	2.10	0.47
2:B:486:ASN:HD22	2:B:486:ASN:N	2.11	0.47
1:C:77:GLU:CG	1:C:106:LYS:HG2	2.42	0.47
1:E:258:ASN:ND2	1:E:330:SER:HB3	2.26	0.47
1:E:466:MET:C	1:E:467:ILE:HD12	2.35	0.47
1:G:206:PRO:O	1:G:207:PHE:C	2.52	0.47
1:I:234:PHE:CD2	1:I:373:ILE:HD13	2.49	0.47
1:I:279:LEU:HD12	1:I:283:ALA:HA	1.96	0.47
2:L:3:THR:HG21	2:L:64:LYS:HG3	1.97	0.47
2:L:495:ARG:HG3	2:L:495:ARG:NH1	2.29	0.47
2:L:508:PHE:CE1	2:L:561:LEU:HD22	2.49	0.47
1:M:282:PRO:O	1:M:283:ALA:C	2.53	0.47
1:O:235:ARG:NH2	2:P:390:GLN:OE1	2.40	0.47
1:O:255:SER:HB2	1:O:321:LYS:O	2.15	0.47
2:P:3:THR:HG21	2:P:64:LYS:HG3	1.96	0.47
2:P:340:VAL:CG1	2:P:344:GLY:HA2	2.44	0.47
2:P:503:ASN:O	2:P:577:PRO:HD2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:191:GLU:HA	1:A:191:GLU:OE1	2.14	0.47
1:A:422:TYR:HD2	1:A:423:HIS:N	2.11	0.47
2:B:128:ASN:HA	2:B:249:ARG:HD3	1.97	0.47
2:B:223:ILE:HD13	2:B:254:GLU:HG3	1.95	0.47
2:B:308:MET:HE3	2:B:309:VAL:C	2.35	0.47
2:B:451:ARG:NH2	2:B:478:SER:HB3	2.30	0.47
1:C:40:ALA:O	1:C:41:VAL:C	2.52	0.47
1:C:186:SER:O	1:C:188:GLN:N	2.40	0.47
1:E:226:PRO:HG2	1:E:486:MET:CE	2.45	0.47
1:E:307:SER:HB2	1:E:441:GLU:OE1	2.15	0.47
1:E:422:TYR:HD1	1:E:423:HIS:N	2.12	0.47
2:F:157:VAL:HG21	2:F:263:ALA:N	2.30	0.47
2:F:215:GLU:OE2	2:F:235:PRO:HG2	2.14	0.47
2:F:444:THR:HG21	2:F:446:GLU:HG3	1.96	0.47
2:F:506:PRO:HD3	2:F:577:PRO:HG3	1.97	0.47
1:G:301:SER:HB2	1:G:312:TYR:O	2.14	0.47
1:G:414:GLU:CD	2:H:362:CYS:SG	2.93	0.47
1:G:420:PHE:HE2	1:G:431:GLU:HB2	1.79	0.47
2:H:235:PRO:HB2	2:H:236:ILE:HD12	1.97	0.47
2:H:391:PHE:C	2:H:391:PHE:CD2	2.87	0.47
1:I:193:SER:OG	1:I:196:MET:HB2	2.15	0.47
1:I:214:ALA:O	1:I:215:HIS:C	2.53	0.47
1:I:438:PHE:HD1	1:I:454:VAL:HG22	1.78	0.47
2:J:131:PHE:CD2	2:J:136:TYR:HA	2.50	0.47
2:J:482:ILE:HG22	2:J:483:LYS:O	2.15	0.47
1:K:42:LYS:C	1:K:44:LEU:H	2.17	0.47
1:K:354:ASP:OD2	1:K:355:ARG:N	2.43	0.47
1:K:367:LEU:HD12	1:K:367:LEU:N	2.22	0.47
1:K:473:ASN:O	1:K:476:GLU:HB3	2.15	0.47
2:L:48:GLU:HG3	2:L:49:GLN:N	2.27	0.47
2:L:73:ASP:HA	2:L:273:MET:HE1	1.95	0.47
2:L:128:ASN:HA	2:L:249:ARG:HD3	1.96	0.47
1:M:255:SER:HB2	1:M:321:LYS:O	2.14	0.47
1:M:370:PHE:N	1:M:370:PHE:HD1	2.13	0.47
1:M:373:ILE:HG12	1:M:459:LEU:HD12	1.96	0.47
1:M:477:LEU:HD12	1:M:478:VAL:CG2	2.43	0.47
2:N:118:ARG:NH2	2:N:256:THR:O	2.48	0.47
2:N:506:PRO:HD2	1:O:191:GLU:CB	2.40	0.47
1:O:298:ARG:HG3	1:O:298:ARG:HH11	1.80	0.47
1:O:298:ARG:HH11	1:O:298:ARG:CG	2.28	0.47
1:O:362:LEU:CD2	2:P:443:LYS:HD3	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:382:LEU:HA	1:O:386:HIS:ND1	2.30	0.47
1:O:387:LEU:HD11	1:O:435:SER:OG	2.14	0.47
2:P:142:LEU:HD23	2:P:146:LEU:HG	1.97	0.47
2:P:485:SER:C	2:P:486:ASN:HD22	2.18	0.47
2:P:569:ILE:HD12	2:P:569:ILE:O	2.15	0.47
2:B:124:ALA:HB1	2:B:300:PRO:HD3	1.96	0.47
2:B:131:PHE:CD2	2:B:136:TYR:HA	2.50	0.47
2:D:139:PHE:HA	2:D:274:PHE:CZ	2.49	0.47
2:D:174:THR:OG1	2:D:175:ALA:N	2.47	0.47
2:F:185:PRO:HG2	2:F:188:LYS:CB	2.43	0.47
2:H:349:ILE:HD13	2:H:364:ILE:HG21	1.96	0.47
1:I:323:LEU:C	1:I:323:LEU:HD12	2.35	0.47
2:J:17:ARG:CZ	2:J:19:TYR:HE1	2.27	0.47
1:M:194:PRO:O	1:M:196:MET:N	2.48	0.47
1:M:195:GLU:O	1:M:199:SER:HB2	2.14	0.47
2:N:6:VAL:CG2	2:N:11:LEU:HD12	2.44	0.47
2:N:147:HIS:O	2:N:151:CYS:HB2	2.15	0.47
2:N:322:GLU:HB2	2:N:327:LEU:CD1	2.44	0.47
2:P:517:ARG:HG3	2:P:521:LEU:HD23	1.93	0.47
2:B:211:LEU:CG	2:B:212:HIS:N	2.78	0.47
2:B:261:THR:HA	2:B:264:LYS:HE2	1.96	0.47
1:C:404:ARG:HD3	1:C:429:TRP:CH2	2.49	0.47
1:C:469:TYR:CZ	1:C:493:CYS:CB	2.94	0.47
2:D:431:ILE:H	2:D:431:ILE:CD1	2.05	0.47
1:E:324:LEU:O	1:E:325:ARG:C	2.54	0.47
2:F:1:MET:O	2:F:1:MET:HG3	2.14	0.47
2:F:48:GLU:HG3	2:F:49:GLN:HG3	1.97	0.47
2:F:267:LEU:CD2	2:F:300:PRO:HB3	2.44	0.47
2:F:420:GLN:HG2	2:F:449:VAL:CG2	2.45	0.47
2:F:529:ASP:O	2:F:530:LYS:HB2	2.15	0.47
2:H:391:PHE:CD2	2:H:392:PRO:HD2	2.46	0.47
2:H:416:ALA:O	2:H:451:ARG:HG3	2.15	0.47
2:J:426:LYS:O	2:J:568:VAL:HG12	2.14	0.47
2:J:437:VAL:O	2:J:449:VAL:HG13	2.14	0.47
2:J:451:ARG:NH2	2:J:478:SER:HB3	2.30	0.47
2:L:147:HIS:CE1	2:L:159:ILE:HG12	2.50	0.47
2:L:439:ILE:N	2:L:439:ILE:HD12	2.30	0.47
1:M:495:LEU:O	1:M:496:ASP:HB2	2.15	0.47
2:N:416:ALA:HA	2:N:451:ARG:HG3	1.95	0.47
2:N:485:SER:C	2:N:486:ASN:HD22	2.18	0.47
1:O:208:LYS:CE	1:O:208:LYS:H	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:353:ILE:HG23	1:O:373:ILE:HG22	1.97	0.47
2:P:142:LEU:HD23	2:P:142:LEU:C	2.34	0.47
2:P:177:ARG:HG2	2:P:178:PRO:CD	2.43	0.47
2:P:565:HIS:HD2	2:P:567:ASP:HB2	1.79	0.47
1:A:246:MET:HE1	1:A:332:SER:N	2.30	0.47
1:A:382:LEU:HA	1:A:386:HIS:ND1	2.30	0.47
2:B:1:MET:HG3	2:B:1:MET:O	2.15	0.47
1:C:120:ALA:HB1	2:H:103:GLY:HA2	1.97	0.47
1:C:316:LEU:HD23	1:C:320:ARG:HG2	1.95	0.47
2:D:90:ARG:HH11	2:D:90:ARG:CB	2.27	0.47
2:D:565:HIS:HD2	2:D:567:ASP:HB2	1.80	0.47
1:E:343:LYS:CB	1:E:344:PRO:CD	2.78	0.47
1:G:258:ASN:O	1:G:262:LEU:HD12	2.14	0.47
1:G:380:HIS:CD2	1:G:452:VAL:HG22	2.50	0.47
2:H:42:LYS:O	2:H:44:ILE:N	2.47	0.47
2:H:127:ARG:NH1	2:H:285:GLU:OE1	2.47	0.47
2:H:508:PHE:CE1	2:H:561:LEU:HD22	2.50	0.47
1:I:246:MET:HG2	1:I:351:PHE:O	2.15	0.47
1:I:281:ASP:CB	1:I:282:PRO:CD	2.91	0.47
2:J:132:THR:HG22	2:J:134:ASP:H	1.80	0.47
2:J:177:ARG:HG2	2:J:178:PRO:CD	2.45	0.47
2:J:357:ASP:O	2:J:359:ILE:HG23	2.15	0.47
1:K:458:GLY:HA3	3:K:509:PHE:N	2.30	0.47
1:K:484:LEU:HG	2:L:465:ASN:CG	2.36	0.47
2:L:517:ARG:CZ	2:L:521:LEU:HD21	2.45	0.47
1:M:218:LEU:HD22	2:P:516:ASP:HB2	1.97	0.47
1:M:458:GLY:HA3	3:M:509:PHE:HB2	1.97	0.47
2:P:497:LEU:HD23	2:P:497:LEU:C	2.35	0.47
2:B:147:HIS:ND1	2:B:154:ARG:HG2	2.29	0.46
2:B:512:HIS:ND1	1:C:216:GLY:N	2.63	0.46
1:C:75:SER:CB	1:C:77:GLU:OE2	2.64	0.46
1:C:106:LYS:HB2	1:C:106:LYS:NZ	2.30	0.46
1:C:316:LEU:HD21	1:C:320:ARG:HD3	1.97	0.46
3:C:509:PHE:N	3:C:509:PHE:CD1	2.82	0.46
2:D:101:PRO:CG	2:D:105:ILE:HD13	2.44	0.46
2:D:126:LEU:HD21	2:D:251:ILE:HB	1.97	0.46
2:D:526:PRO:HA	2:D:533:TYR:CE2	2.50	0.46
1:E:196:MET:HE3	1:E:202:TRP:HB2	1.97	0.46
1:E:285:ALA:O	1:E:286:LEU:HB3	2.16	0.46
1:E:467:ILE:HA	1:E:470:GLY:CA	2.45	0.46
1:G:363:ASP:O	1:G:366:HIS:HB3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:129:ILE:HD12	2:H:251:ILE:CD1	2.44	0.46
2:H:472:LEU:HB2	2:H:502:TYR:HB3	1.98	0.46
2:J:45:ILE:HG23	2:J:48:GLU:HG3	1.97	0.46
2:J:271:VAL:HG21	2:J:284:VAL:CG1	2.45	0.46
2:J:291:PHE:CE1	2:J:297:HIS:HD2	2.33	0.46
1:K:228:LEU:HD12	2:L:411:GLU:CD	2.35	0.46
1:K:267:GLN:HA	2:L:152:ARG:NH1	2.30	0.46
1:K:349:LYS:HG2	1:K:377:VAL:HG22	1.97	0.46
1:K:395:PHE:CE2	1:K:432:VAL:HG23	2.50	0.46
2:L:528:GLU:O	2:L:529:ASP:O	2.33	0.46
2:N:519:MET:HG3	2:N:533:TYR:CE1	2.49	0.46
2:P:15:LEU:CD1	2:P:19:TYR:HE2	2.28	0.46
2:P:234:PRO:HB2	2:P:235:PRO:CD	2.29	0.46
2:P:271:VAL:HG21	2:P:284:VAL:CG1	2.45	0.46
2:B:146:LEU:HD13	2:B:266:VAL:HG13	1.96	0.46
2:B:399:LEU:CD1	1:C:494:ARG:HG3	2.38	0.46
2:B:564:LEU:HD12	2:B:578:CYS:HB3	1.95	0.46
1:C:26:LEU:O	1:C:26:LEU:HG	2.15	0.46
1:C:207:PHE:N	1:C:207:PHE:CD1	2.83	0.46
1:C:289:PRO:HB2	1:C:292:TYR:HB3	1.98	0.46
1:C:410:ASN:HB2	1:C:413:THR:OG1	2.15	0.46
1:C:498:GLU:HB3	1:C:499:PRO:CD	2.41	0.46
2:D:150:ILE:HD12	2:D:150:ILE:O	2.15	0.46
2:D:303:ALA:O	2:D:353:PRO:HB3	2.15	0.46
1:E:192:LEU:HG	1:E:196:MET:CE	2.44	0.46
1:E:197:ILE:HG23	2:H:566:PRO:HB3	1.96	0.46
2:F:132:THR:HG22	2:F:134:ASP:H	1.79	0.46
2:F:401:ARG:HG2	2:F:477:ILE:HD12	1.95	0.46
1:G:259:PHE:CD2	1:G:264:GLN:HG2	2.42	0.46
2:H:128:ASN:HA	2:H:249:ARG:HD3	1.97	0.46
2:H:576:MET:N	2:H:576:MET:SD	2.89	0.46
1:I:316:LEU:HD21	1:I:320:ARG:HD3	1.96	0.46
1:I:324:LEU:O	1:I:325:ARG:C	2.54	0.46
2:J:550:GLU:HB3	2:J:552:PHE:HE1	1.81	0.46
1:K:193:SER:HB2	1:K:194:PRO:HD2	1.97	0.46
1:K:430:VAL:O	1:K:432:VAL:HG13	2.15	0.46
2:L:131:PHE:CD2	2:L:136:TYR:HA	2.50	0.46
2:L:291:PHE:CE1	2:L:297:HIS:HD2	2.34	0.46
2:N:493:ASN:HD22	2:N:493:ASN:N	2.13	0.46
1:O:288:LEU:O	1:O:290:MET:N	2.48	0.46
2:P:122:VAL:CG2	2:P:299:PHE:CD2	2.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:126:LEU:HD21	2:P:251:ILE:HB	1.97	0.46
2:P:174:THR:OG1	2:P:175:ALA:N	2.47	0.46
2:P:414:THR:HB	2:P:451:ARG:NH1	2.29	0.46
1:A:276:THR:HG22	1:A:277:PHE:N	2.30	0.46
1:A:324:LEU:HB3	1:A:357:PHE:HB2	1.98	0.46
2:B:175:ALA:HA	2:B:220:TYR:O	2.14	0.46
2:B:308:MET:HE3	2:B:309:VAL:CA	2.45	0.46
1:C:206:PRO:O	1:C:206:PRO:HG2	2.15	0.46
2:D:70:ASN:HB3	2:D:71:ARG:HD2	1.97	0.46
2:D:118:ARG:CZ	2:D:257:GLY:HA2	2.44	0.46
2:F:122:VAL:HG23	2:F:299:PHE:CG	2.50	0.46
2:F:420:GLN:HG2	2:F:449:VAL:HG23	1.96	0.46
1:G:355:ARG:HG2	1:G:357:PHE:CZ	2.50	0.46
1:G:373:ILE:CG2	1:G:461:LEU:HD23	2.45	0.46
2:H:139:PHE:HA	2:H:274:PHE:CZ	2.51	0.46
2:H:181:ILE:CD1	2:H:194:ALA:HB2	2.45	0.46
1:M:336:LEU:HB3	1:M:446:MET:HE1	1.97	0.46
2:N:121:ALA:CB	2:N:256:THR:HA	2.45	0.46
1:O:410:ASN:HB2	1:O:413:THR:OG1	2.15	0.46
2:P:90:ARG:HH11	2:P:90:ARG:CB	2.29	0.46
2:P:167:LEU:HD13	2:P:171:PHE:CE2	2.51	0.46
2:B:42:LYS:CB	2:B:58:SER:HB3	2.46	0.46
2:B:133:LYS:H	2:B:133:LYS:CD	2.13	0.46
2:B:519:MET:HG3	2:B:533:TYR:CE1	2.50	0.46
2:B:584:ASN:ND2	2:B:587:PRO:HD3	2.29	0.46
2:D:126:LEU:N	2:D:126:LEU:CD2	2.79	0.46
2:D:515:LEU:HD11	2:D:551:ILE:CG2	2.45	0.46
2:F:27:LEU:CD1	2:F:84:LEU:HD22	2.46	0.46
1:G:223:HIS:HB2	2:H:410:THR:HG23	1.97	0.46
1:G:353:ILE:HG23	1:G:373:ILE:HG22	1.96	0.46
1:G:366:HIS:CE1	1:G:475:ARG:HB2	2.50	0.46
2:H:208:LYS:O	2:H:211:LEU:HD21	2.16	0.46
2:H:351:ILE:N	2:H:351:ILE:HD12	2.30	0.46
1:I:217:VAL:O	2:L:513:GLY:HA3	2.15	0.46
2:J:387:ILE:HG23	1:K:241:MET:HG2	1.97	0.46
2:L:174:THR:OG1	2:L:175:ALA:N	2.47	0.46
1:M:265:PRO:HD3	1:M:310:TYR:CZ	2.50	0.46
2:N:27:LEU:CD1	2:N:84:LEU:HD13	2.44	0.46
2:N:147:HIS:HE1	2:N:158:ALA:HA	1.81	0.46
1:O:259:PHE:HB3	1:O:271:ARG:NH2	2.28	0.46
2:P:515:LEU:HD13	2:P:551:ILE:HD12	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:223:HIS:HB2	2:B:410:THR:HG23	1.97	0.46
1:A:279:LEU:HD22	2:B:437:VAL:CG1	2.45	0.46
2:B:274:PHE:C	2:B:276:GLU:H	2.18	0.46
1:C:147:GLN:C	1:C:149:GLU:H	2.18	0.46
1:C:463:ARG:N	1:C:464:PRO:HD2	2.31	0.46
2:D:73:ASP:HA	2:D:273:MET:HE1	1.97	0.46
2:D:508:PHE:CE1	2:D:561:LEU:HD22	2.49	0.46
1:E:190:THR:HG22	1:E:207:PHE:HB3	1.98	0.46
1:E:268:HIS:HB3	1:E:272:ASP:CG	2.34	0.46
2:F:17:ARG:HE	2:F:17:ARG:HB3	1.61	0.46
2:F:40:SER:HA	2:F:62:LEU:CD2	2.45	0.46
2:F:535:ILE:HD12	2:F:535:ILE:N	2.17	0.46
1:G:230:VAL:HG11	1:G:465:THR:CG2	2.45	0.46
1:G:259:PHE:CZ	1:G:276:THR:HG21	2.41	0.46
1:I:316:LEU:HD23	1:I:320:ARG:HG2	1.96	0.46
2:J:105:ILE:O	2:J:106:GLN:C	2.53	0.46
2:J:113:GLU:HB3	2:J:219:LEU:HD13	1.97	0.46
2:L:17:ARG:CZ	2:L:19:TYR:HE1	2.28	0.46
2:L:340:VAL:CG1	2:L:344:GLY:HA2	2.45	0.46
2:L:472:LEU:HB2	2:L:502:TYR:HB3	1.98	0.46
1:M:206:PRO:O	1:M:208:LYS:N	2.45	0.46
1:O:324:LEU:O	1:O:325:ARG:C	2.53	0.46
2:P:446:GLU:O	2:P:447:PHE:CD2	2.68	0.46
1:C:251:PHE:H	2:D:493:ASN:HD21	1.64	0.46
1:C:343:LYS:HB2	1:C:344:PRO:HD2	1.91	0.46
2:D:132:THR:CG2	2:D:133:LYS:N	2.79	0.46
2:D:304:TYR:CE1	2:D:353:PRO:CD	2.99	0.46
1:E:206:PRO:CB	1:E:208:LYS:HE3	2.45	0.46
1:E:373:ILE:HG12	1:E:459:LEU:HD12	1.97	0.46
2:F:201:TYR:C	2:F:203:THR:H	2.17	0.46
2:F:512:HIS:ND1	1:G:216:GLY:HA3	2.31	0.46
1:G:324:LEU:O	1:G:325:ARG:C	2.54	0.46
1:G:343:LYS:CB	1:G:344:PRO:HD3	2.34	0.46
1:G:474:ILE:O	1:G:474:ILE:HG12	2.15	0.46
2:H:215:GLU:OE2	2:H:235:PRO:HG2	2.15	0.46
2:H:429:VAL:HG12	2:H:430:ASP:N	2.31	0.46
2:J:512:HIS:HA	2:J:561:LEU:HD11	1.98	0.46
2:L:127:ARG:NH1	2:L:285:GLU:OE1	2.48	0.46
2:L:234:PRO:HB2	2:L:235:PRO:CD	2.27	0.46
2:L:271:VAL:HG21	2:L:284:VAL:CG1	2.46	0.46
2:L:416:ALA:O	2:L:451:ARG:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:479:ASP:HA	2:L:494:TYR:O	2.16	0.46
2:N:3:THR:HG21	2:N:64:LYS:HG3	1.97	0.46
2:N:503:ASN:O	2:N:577:PRO:HD2	2.16	0.46
2:P:67:VAL:CG1	2:P:68:PRO:HD2	2.45	0.46
2:P:401:ARG:HG2	2:P:477:ILE:HD12	1.97	0.46
2:B:512:HIS:CE1	1:C:216:GLY:N	2.83	0.46
1:C:112:TRP:CE3	1:C:132:MET:HE1	2.51	0.46
1:C:246:MET:HE1	1:C:332:SER:N	2.31	0.46
1:E:218:LEU:O	1:E:219:PRO:O	2.34	0.46
1:E:267:GLN:HE22	2:F:156:LEU:HD21	1.80	0.46
2:F:126:LEU:HD21	2:F:251:ILE:HB	1.98	0.46
2:F:235:PRO:HB2	2:F:236:ILE:HD12	1.98	0.46
1:G:364:ALA:O	1:G:365:THR:HB	2.15	0.46
1:G:426:LEU:H	1:G:426:LEU:CD1	2.28	0.46
1:G:443:LEU:HD11	1:G:454:VAL:HG13	1.97	0.46
2:H:146:LEU:HD13	2:H:266:VAL:HG13	1.97	0.46
2:H:188:LYS:HE2	2:H:201:TYR:CE2	2.50	0.46
2:H:533:TYR:HA	2:H:552:PHE:O	2.16	0.46
1:I:227:LEU:CD2	1:I:461:LEU:HD12	2.46	0.46
1:I:373:ILE:HG22	1:I:461:LEU:HD23	1.98	0.46
2:J:108:LEU:HD21	2:J:173:TYR:HB2	1.97	0.46
1:K:279:LEU:HD23	1:K:323:LEU:HA	1.96	0.46
2:L:303:ALA:O	2:L:353:PRO:HB3	2.15	0.46
2:L:437:VAL:O	2:L:449:VAL:HG13	2.15	0.46
1:M:413:THR:HG21	1:M:436:GLY:HA3	1.97	0.46
2:N:268:ASP:O	2:N:272:THR:HG22	2.16	0.46
1:O:234:PHE:CZ	1:O:398:LEU:HD21	2.50	0.46
1:O:463:ARG:N	1:O:464:PRO:HD2	2.31	0.46
2:B:200:ILE:HD12	2:B:200:ILE:C	2.35	0.46
2:B:340:VAL:CG1	2:B:344:GLY:HA2	2.46	0.46
2:B:414:THR:HB	2:B:451:ARG:NH1	2.30	0.46
2:D:416:ALA:HA	2:D:451:ARG:HG3	1.97	0.46
2:D:446:GLU:O	2:D:447:PHE:CD2	2.69	0.46
1:E:204:ASP:O	1:E:206:PRO:HD3	2.15	0.46
2:F:98:ARG:HG2	2:F:98:ARG:NH1	2.30	0.46
2:F:188:LYS:HE2	2:F:201:TYR:CE2	2.51	0.46
2:F:281:GLN:HG2	2:F:282:PHE:CD1	2.51	0.46
2:F:480:ILE:HG12	2:F:496:HIS:NE2	2.31	0.46
1:G:479:GLY:HA3	2:H:415:PHE:CE1	2.51	0.46
1:I:237:ILE:HD12	1:I:397:LYS:HB3	1.97	0.46
1:I:301:SER:HB2	1:I:312:TYR:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:336:LEU:HB3	1:I:446:MET:HE1	1.96	0.46
1:K:211:ASN:HB2	1:K:213:LEU:HD11	1.95	0.46
1:K:327:HIS:HA	1:K:356:VAL:HG11	1.97	0.46
1:K:358:ARG:HG3	1:K:358:ARG:NH1	2.31	0.46
1:K:414:GLU:HG3	1:K:415:PRO:HD3	1.96	0.46
2:L:114:THR:O	2:L:117:ILE:HD12	2.16	0.46
2:N:197:LEU:HA	2:N:200:ILE:HG12	1.96	0.46
2:N:517:ARG:CZ	2:N:521:LEU:HD21	2.46	0.46
2:P:62:LEU:N	2:P:62:LEU:CD2	2.78	0.46
1:A:373:ILE:CG2	1:A:461:LEU:HD23	2.46	0.46
1:A:394:PHE:CD2	1:A:457:TRP:HZ2	2.33	0.46
1:A:474:ILE:C	1:A:476:GLU:H	2.19	0.46
2:B:49:GLN:HE21	2:B:52:VAL:CG2	2.29	0.46
2:B:280:ASN:HB3	2:B:283:THR:HG21	1.97	0.46
1:C:179:SER:C	1:C:181:PHE:N	2.69	0.46
1:C:268:HIS:HD2	1:C:270:ALA:CB	2.29	0.46
2:D:103:GLY:O	2:D:105:ILE:N	2.43	0.46
2:D:131:PHE:CD2	2:D:136:TYR:HA	2.50	0.46
2:D:159:ILE:HG22	2:D:255:CYS:HG	1.77	0.46
1:E:215:HIS:CG	1:E:215:HIS:O	2.69	0.46
2:F:17:ARG:CZ	2:F:19:TYR:HE1	2.28	0.46
2:F:52:VAL:HG23	2:F:52:VAL:O	2.16	0.46
1:G:227:LEU:CD2	1:G:465:THR:HG21	2.45	0.46
2:H:51:ASN:C	2:H:53:LYS:H	2.18	0.46
1:I:305:TYR:HB3	1:I:444:LEU:HD12	1.97	0.46
2:J:198:MET:SD	2:J:220:TYR:HE2	2.39	0.46
2:J:340:VAL:CG1	2:J:344:GLY:HA2	2.46	0.46
1:K:264:GLN:NE2	1:K:411:PRO:HG2	2.31	0.46
2:L:397:THR:HG23	2:L:477:ILE:HG21	1.97	0.46
1:M:228:LEU:HD12	2:N:411:GLU:OE2	2.16	0.46
1:M:261:ALA:HB1	1:M:292:TYR:OH	2.16	0.46
2:N:512:HIS:CE1	1:O:216:GLY:H	2.32	0.46
2:P:201:TYR:C	2:P:203:THR:N	2.68	0.46
2:B:183:PHE:O	2:B:191:GLU:HA	2.16	0.46
2:B:482:ILE:CG2	2:B:483:LYS:N	2.79	0.46
2:B:533:TYR:HA	2:B:552:PHE:O	2.16	0.46
2:D:340:VAL:CG1	2:D:344:GLY:HA2	2.46	0.46
2:D:475:PHE:HA	2:D:498:CYS:O	2.16	0.46
2:D:482:ILE:HG22	2:D:483:LYS:O	2.16	0.46
2:F:113:GLU:HB3	2:F:219:LEU:HD13	1.98	0.46
2:F:123:ALA:HB1	2:F:253:ILE:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:152:ARG:HD3	2:H:156:LEU:HD11	1.97	0.46
2:J:1:MET:HG3	2:J:1:MET:O	2.15	0.46
1:K:449:PRO:HB2	1:K:451:ASN:OD1	2.16	0.46
1:K:472:ASN:O	1:K:472:ASN:ND2	2.49	0.46
2:L:132:THR:HG22	2:L:134:ASP:H	1.80	0.46
2:L:446:GLU:O	2:L:447:PHE:CD2	2.69	0.46
1:M:228:LEU:HD12	2:N:411:GLU:CD	2.36	0.46
2:N:47:LYS:HB3	2:N:48:GLU:OE1	2.16	0.46
2:N:49:GLN:HG2	2:N:52:VAL:HG11	1.98	0.46
2:N:139:PHE:HA	2:N:274:PHE:CZ	2.51	0.46
2:N:157:VAL:HG22	2:N:263:ALA:HB2	1.98	0.46
1:O:406:LYS:HD3	1:O:420:PHE:HE2	1.80	0.46
1:A:277:PHE:HB2	1:A:324:LEU:HB2	1.98	0.45
1:A:444:LEU:N	1:A:445:PRO:HD2	2.31	0.45
2:B:157:VAL:HG21	2:B:263:ALA:N	2.31	0.45
2:B:512:HIS:ND1	1:C:216:GLY:HA3	2.31	0.45
1:C:61:TRP:CH2	1:C:167:GLU:HB2	2.52	0.45
1:C:208:LYS:CE	1:C:209:PRO:O	2.64	0.45
2:D:472:LEU:HB2	2:D:502:TYR:HB3	1.98	0.45
1:E:204:ASP:O	1:E:205:ARG:C	2.54	0.45
1:E:327:HIS:N	1:E:356:VAL:HG11	2.31	0.45
2:F:112:GLU:C	2:F:114:THR:H	2.19	0.45
2:F:126:LEU:N	2:F:126:LEU:CD2	2.79	0.45
1:G:246:MET:SD	1:G:350:TYR:HB3	2.56	0.45
1:G:294:GLN:NE2	1:G:297:LYS:HD3	2.30	0.45
2:H:126:LEU:HD21	2:H:251:ILE:HB	1.98	0.45
2:H:362:CYS:HA	2:H:365:VAL:HG23	1.98	0.45
1:I:192:LEU:HD11	2:L:544:PHE:CD2	2.51	0.45
1:K:193:SER:O	1:K:197:ILE:HD13	2.16	0.45
2:L:71:ARG:HG3	2:L:355:ARG:HH12	1.74	0.45
2:L:143:GLN:HG3	2:L:159:ILE:HD12	1.97	0.45
1:M:279:LEU:HG	1:M:281:ASP:CB	2.40	0.45
2:N:49:GLN:NE2	2:N:52:VAL:HG21	2.30	0.45
2:N:128:ASN:HA	2:N:249:ARG:HD3	1.97	0.45
2:N:157:VAL:HG11	2:N:263:ALA:HA	1.98	0.45
2:N:234:PRO:CB	2:N:235:PRO:CD	2.92	0.45
2:N:322:GLU:HB2	2:N:327:LEU:HD13	1.97	0.45
1:O:271:ARG:O	1:O:271:ARG:HG2	2.15	0.45
2:P:439:ILE:HD12	2:P:439:ILE:N	2.31	0.45
2:P:450:ALA:HB3	2:P:481:VAL:HG11	1.97	0.45
1:A:268:HIS:HA	1:A:269:PRO:HD3	1.77	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:316:LEU:O	1:A:320:ARG:HG2	2.16	0.45
1:A:373:ILE:HD13	1:A:459:LEU:HD11	1.96	0.45
1:C:228:LEU:HD12	2:D:411:GLU:OE2	2.16	0.45
1:E:238:PHE:HE1	1:E:373:ILE:HD12	1.82	0.45
2:F:308:MET:HE3	2:F:309:VAL:C	2.37	0.45
1:K:422:TYR:O	1:K:423:HIS:C	2.55	0.45
2:L:132:THR:CG2	2:L:133:LYS:N	2.79	0.45
1:M:247:PRO:HB3	2:N:391:PHE:CE1	2.51	0.45
1:M:349:LYS:HG2	1:M:377:VAL:HG22	1.99	0.45
1:M:358:ARG:HG2	1:M:358:ARG:NH1	2.29	0.45
1:M:438:PHE:HD1	1:M:454:VAL:HG22	1.81	0.45
2:N:505:ASN:HB2	1:O:191:GLU:CG	2.46	0.45
1:O:193:SER:OG	1:O:195:GLU:HG2	2.17	0.45
2:P:197:LEU:HA	2:P:200:ILE:HG12	1.97	0.45
1:A:324:LEU:O	1:A:325:ARG:C	2.53	0.45
1:A:396:THR:C	1:A:398:LEU:H	2.18	0.45
2:B:132:THR:HB	2:B:135:ARG:HG3	1.97	0.45
2:B:515:LEU:HD11	2:B:551:ILE:CG2	2.47	0.45
2:D:17:ARG:CZ	2:D:19:TYR:CE1	2.99	0.45
2:D:281:GLN:HG2	2:D:282:PHE:CD1	2.52	0.45
2:D:434:THR:O	2:D:435:LYS:HB2	2.16	0.45
2:D:462:ILE:HG23	2:D:472:LEU:CD1	2.35	0.45
1:E:262:LEU:O	1:E:412:TYR:HB3	2.16	0.45
1:E:301:SER:O	1:E:311:LYS:HA	2.16	0.45
2:F:515:LEU:HD11	2:F:551:ILE:CG2	2.46	0.45
1:G:363:ASP:CG	1:G:364:ALA:N	2.69	0.45
1:G:426:LEU:H	1:G:426:LEU:HD12	1.81	0.45
2:H:223:ILE:HD13	2:H:254:GLU:HG3	1.99	0.45
2:H:479:ASP:HA	2:H:494:TYR:O	2.17	0.45
1:I:466:MET:CE	1:I:474:ILE:HG13	2.46	0.45
2:J:179:SER:HA	2:J:193:THR:HG21	1.98	0.45
1:K:219:PRO:O	1:K:221:SER:N	2.46	0.45
1:K:424:GLN:C	1:K:426:LEU:N	2.67	0.45
1:K:464:PRO:HG2	1:K:465:THR:H	1.81	0.45
2:L:101:PRO:CG	2:L:105:ILE:HD13	2.45	0.45
2:L:197:LEU:HA	2:L:200:ILE:HG12	1.98	0.45
2:L:308:MET:HE3	2:L:309:VAL:CA	2.46	0.45
1:M:234:PHE:CD2	1:M:373:ILE:HD13	2.51	0.45
2:N:274:PHE:C	2:N:276:GLU:H	2.19	0.45
1:O:404:ARG:HD3	1:O:429:TRP:CZ2	2.51	0.45
2:P:223:ILE:CD1	2:P:254:GLU:HG3	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:322:GLU:HB2	2:P:327:LEU:CD1	2.46	0.45
2:P:515:LEU:HD11	2:P:551:ILE:HD12	1.95	0.45
1:A:492:LEU:CD2	2:D:399:LEU:HB3	2.45	0.45
1:A:496:ASP:O	1:A:498:GLU:N	2.50	0.45
2:B:147:HIS:HE1	2:B:159:ILE:H	1.63	0.45
2:B:426:LYS:HA	2:B:571:LYS:CE	2.43	0.45
1:C:84:ILE:CD1	1:C:125:VAL:HG12	2.46	0.45
1:C:90:ALA:HB2	1:C:121:ASP:OD2	2.17	0.45
1:C:273:GLN:HE21	1:C:273:GLN:HB3	1.60	0.45
1:C:349:LYS:HG2	1:C:377:VAL:HG22	1.98	0.45
2:F:143:GLN:HG3	2:F:159:ILE:HD12	1.99	0.45
1:G:233:GLN:CD	1:G:495:LEU:HD13	2.36	0.45
2:H:70:ASN:HB3	2:H:71:ARG:HD2	1.98	0.45
2:H:533:TYR:HD2	2:H:533:TYR:N	2.14	0.45
1:I:406:LYS:HB2	2:J:29:PHE:CE2	2.50	0.45
2:J:4:VAL:HG22	2:J:145:LYS:HE3	1.97	0.45
2:J:197:LEU:HA	2:J:200:ILE:HG12	1.99	0.45
2:J:331:LEU:HD21	2:J:368:ALA:HB2	1.98	0.45
2:L:118:ARG:NH2	2:L:256:THR:O	2.49	0.45
1:M:276:THR:HB	1:M:277:PHE:H	1.56	0.45
2:N:132:THR:HG23	2:N:133:LYS:N	2.32	0.45
2:N:211:LEU:HG	2:N:212:HIS:N	2.20	0.45
1:O:414:GLU:CD	2:P:362:CYS:SG	2.94	0.45
2:P:105:ILE:O	2:P:106:GLN:C	2.55	0.45
2:P:411:GLU:HA	2:P:475:PHE:O	2.16	0.45
1:A:234:PHE:CD2	1:A:373:ILE:HD13	2.51	0.45
1:A:380:HIS:CD2	1:A:452:VAL:HG22	2.52	0.45
2:B:183:PHE:CD2	2:B:230:VAL:HG11	2.51	0.45
2:B:453:THR:HG23	2:B:456:PRO:CD	2.47	0.45
2:B:495:ARG:HG3	2:B:495:ARG:NH1	2.31	0.45
1:C:282:PRO:CD	2:D:437:VAL:HG13	2.45	0.45
1:E:443:LEU:HD11	1:E:454:VAL:HG13	1.98	0.45
2:F:101:PRO:CG	2:F:105:ILE:HD13	2.44	0.45
2:F:439:ILE:HD12	2:F:439:ILE:N	2.31	0.45
2:F:570:THR:HG21	1:G:197:ILE:HG22	1.98	0.45
2:H:62:LEU:N	2:H:62:LEU:CD2	2.77	0.45
2:H:493:ASN:HD22	2:H:493:ASN:N	2.14	0.45
2:H:515:LEU:HD11	2:H:551:ILE:HD12	1.98	0.45
2:J:157:VAL:HG21	2:J:263:ALA:N	2.31	0.45
1:K:210:TYR:HB3	1:K:212:PHE:CE1	2.49	0.45
2:L:146:LEU:HD11	2:L:159:ILE:HD13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:211:LEU:CG	2:L:212:HIS:N	2.78	0.45
1:M:327:HIS:HA	1:M:356:VAL:CG1	2.44	0.45
1:M:473:ASN:C	1:M:475:ARG:N	2.70	0.45
2:P:132:THR:HG22	2:P:134:ASP:H	1.81	0.45
2:P:261:THR:HA	2:P:264:LYS:HE2	1.98	0.45
1:C:84:ILE:HD11	1:C:125:VAL:C	2.36	0.45
2:D:105:ILE:O	2:D:106:GLN:C	2.54	0.45
2:D:322:GLU:HB2	2:D:327:LEU:CD1	2.47	0.45
1:E:216:GLY:HA3	2:H:512:HIS:ND1	2.32	0.45
2:F:6:VAL:CG2	2:F:11:LEU:HD12	2.46	0.45
2:F:42:LYS:H	2:F:58:SER:HB2	1.80	0.45
2:F:512:HIS:ND1	1:G:216:GLY:CA	2.80	0.45
1:G:402:GLN:HB2	1:G:422:TYR:H	1.82	0.45
1:G:413:THR:HG21	1:G:436:GLY:HA3	1.99	0.45
1:G:449:PRO:HB2	1:G:451:ASN:OD1	2.16	0.45
1:G:463:ARG:N	1:G:464:PRO:HD2	2.31	0.45
1:M:225:HIS:CE1	2:N:413:LEU:HD12	2.52	0.45
2:N:146:LEU:HD11	2:N:159:ILE:HD13	1.98	0.45
2:N:146:LEU:HD13	2:N:266:VAL:HG13	1.98	0.45
2:N:162:HIS:CD2	2:N:231:LEU:HD12	2.52	0.45
2:N:188:LYS:HE2	2:N:201:TYR:CE2	2.50	0.45
2:N:526:PRO:HA	2:N:533:TYR:CD2	2.52	0.45
2:P:128:ASN:HA	2:P:249:ARG:HD3	1.98	0.45
2:B:17:ARG:CZ	2:B:19:TYR:CE1	3.00	0.45
2:B:38:ILE:HD13	2:B:63:TYR:HE1	1.81	0.45
2:B:113:GLU:HB3	2:B:219:LEU:HD13	1.98	0.45
2:B:553:ALA:O	2:B:554:ARG:C	2.55	0.45
1:C:208:LYS:HE3	1:C:209:PRO:N	2.31	0.45
1:C:324:LEU:O	1:C:325:ARG:C	2.55	0.45
1:C:437:VAL:O	1:C:438:PHE:O	2.34	0.45
1:C:461:LEU:HD22	1:C:461:LEU:HA	1.83	0.45
2:D:127:ARG:NH1	2:D:285:GLU:OE1	2.50	0.45
2:D:451:ARG:NH2	2:D:478:SER:HB3	2.31	0.45
2:F:147:HIS:HE1	2:F:158:ALA:HA	1.82	0.45
2:F:357:ASP:OD1	2:F:358:ILE:HD12	2.15	0.45
2:F:498:CYS:HB2	2:F:582:GLU:HG3	1.97	0.45
2:F:576:MET:H	2:F:576:MET:HE2	1.82	0.45
1:G:468:LYS:O	1:G:469:TYR:HD2	2.00	0.45
1:G:469:TYR:CE2	1:G:493:CYS:HB2	2.51	0.45
2:H:157:VAL:HG21	2:H:263:ALA:N	2.32	0.45
2:H:310:ARG:O	2:H:313:LEU:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:485:SER:C	2:H:486:ASN:HD22	2.20	0.45
1:I:246:MET:HG3	1:I:352:SER:HB3	1.99	0.45
1:K:373:ILE:HG22	1:K:461:LEU:HD23	1.99	0.45
1:K:391:LEU:HD13	1:K:419:VAL:HG21	1.98	0.45
1:K:463:ARG:N	1:K:464:PRO:HD2	2.31	0.45
2:L:105:ILE:O	2:L:106:GLN:C	2.54	0.45
2:L:507:GLY:CA	2:L:510:ILE:HG22	2.46	0.45
2:N:43:GLU:O	2:N:47:LYS:HB2	2.17	0.45
2:N:142:LEU:HD23	2:N:146:LEU:HG	1.98	0.45
2:P:73:ASP:HA	2:P:273:MET:HE1	1.99	0.45
2:P:82:ARG:HD2	2:P:94:PRO:HG3	1.98	0.45
2:P:157:VAL:HG21	2:P:263:ALA:N	2.32	0.45
2:P:223:ILE:HD13	2:P:254:GLU:HG3	1.98	0.45
2:P:479:ASP:HA	2:P:494:TYR:O	2.17	0.45
1:A:241:MET:HG2	2:D:387:ILE:HD12	1.99	0.45
1:A:298:ARG:HH11	1:A:298:ARG:CG	2.30	0.45
1:A:353:ILE:HG12	1:A:373:ILE:HB	1.98	0.45
1:A:363:ASP:CG	1:A:364:ALA:H	2.19	0.45
1:A:494:ARG:C	1:A:496:ASP:N	2.69	0.45
2:B:181:ILE:CD1	2:B:194:ALA:HB2	2.47	0.45
2:B:223:ILE:CD1	2:B:254:GLU:HG3	2.47	0.45
2:B:360:HIS:CG	2:B:361:ALA:N	2.85	0.45
2:B:508:PHE:HE2	1:C:210:TYR:CE2	2.35	0.45
1:C:7:ALA:C	1:C:9:LEU:N	2.70	0.45
1:C:227:LEU:CD2	1:C:461:LEU:HD12	2.47	0.45
2:F:414:THR:HB	2:F:451:ARG:NH1	2.32	0.45
1:G:207:PHE:O	1:G:209:PRO:HD3	2.17	0.45
1:G:316:LEU:HD23	1:G:320:ARG:HG2	1.99	0.45
1:G:359:ASN:HD21	2:H:443:LYS:HD2	1.82	0.45
2:H:143:GLN:HG3	2:H:159:ILE:HD12	1.98	0.45
1:I:237:ILE:HD12	1:I:397:LYS:CB	2.47	0.45
1:I:287:GLN:HB3	2:J:488:ASP:CB	2.46	0.45
1:I:343:LYS:HB2	1:I:344:PRO:HD2	1.91	0.45
2:J:515:LEU:HD13	2:J:551:ILE:HD12	1.99	0.45
1:K:497:ALA:O	1:K:498:GLU:HG3	2.16	0.45
2:L:181:ILE:CD1	2:L:194:ALA:HB2	2.47	0.45
2:L:475:PHE:HA	2:L:498:CYS:O	2.16	0.45
1:M:258:ASN:HA	1:M:330:SER:HB3	1.98	0.45
2:N:495:ARG:HH11	2:N:495:ARG:HG3	1.81	0.45
1:O:413:THR:HG21	1:O:436:GLY:HA3	1.99	0.45
1:O:480:HIS:CD2	1:O:480:HIS:H	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:132:THR:HB	2:P:135:ARG:CG	2.46	0.45
2:P:416:ALA:O	2:P:451:ARG:HG3	2.16	0.45
2:P:472:LEU:HB2	2:P:502:TYR:HB3	1.98	0.45
1:A:207:PHE:HD2	1:A:207:PHE:H	1.65	0.45
2:B:70:ASN:HB3	2:B:71:ARG:HD2	1.99	0.45
2:B:82:ARG:HD2	2:B:94:PRO:HG3	1.99	0.45
2:B:157:VAL:HG22	2:B:263:ALA:HB2	1.98	0.45
2:B:188:LYS:HE2	2:B:201:TYR:CE2	2.52	0.45
1:C:408:ALA:CB	1:C:418:GLU:HG3	2.45	0.45
2:D:68:PRO:O	2:D:70:ASN:N	2.50	0.45
2:D:183:PHE:CD2	2:D:230:VAL:HG11	2.52	0.45
1:E:202:TRP:CD1	1:E:202:TRP:C	2.90	0.45
1:E:225:HIS:HA	1:E:226:PRO:HD3	1.87	0.45
1:E:269:PRO:HB3	2:F:149:ASN:HD21	1.80	0.45
1:G:267:GLN:O	1:G:268:HIS:C	2.55	0.45
2:H:41:GLU:HB3	2:H:58:SER:HB3	1.98	0.45
2:H:444:THR:HG21	2:H:446:GLU:HG3	1.98	0.45
1:I:262:LEU:O	1:I:412:TYR:HB3	2.16	0.45
2:J:249:ARG:C	2:J:250:ASN:HD22	2.20	0.45
2:J:322:GLU:HB2	2:J:327:LEU:HD13	1.98	0.45
2:L:46:SER:HB2	2:L:53:LYS:HE2	1.99	0.45
2:L:157:VAL:HG21	2:L:263:ALA:N	2.32	0.45
1:M:279:LEU:HD11	2:N:437:VAL:HG13	1.98	0.45
1:M:410:ASN:HB2	1:M:413:THR:OG1	2.17	0.45
1:M:466:MET:CE	1:M:474:ILE:HG12	2.47	0.45
2:N:186:LEU:HD23	2:N:237:ILE:CG2	2.46	0.45
2:N:211:LEU:CG	2:N:212:HIS:N	2.75	0.45
2:N:515:LEU:HD11	2:N:551:ILE:CG2	2.46	0.45
2:N:520:GLN:NE2	1:O:489:ASP:OD1	2.50	0.45
1:A:440:PRO:HG3	2:B:360:HIS:HE2	1.80	0.45
2:B:105:ILE:O	2:B:106:GLN:C	2.55	0.45
2:B:142:LEU:O	2:B:142:LEU:HD23	2.17	0.45
2:B:180:ASP:O	2:B:181:ILE:HG23	2.16	0.45
2:B:340:VAL:HG11	2:B:344:GLY:HA2	1.98	0.45
2:B:549:ALA:HB2	1:C:212:PHE:CE2	2.51	0.45
1:C:222:GLY:HA3	2:D:405:ALA:O	2.17	0.45
1:C:464:PRO:HG2	1:C:465:THR:H	1.82	0.45
2:D:163:ASP:OD2	2:D:248:THR:HG23	2.16	0.45
2:D:219:LEU:C	2:D:220:TYR:HD1	2.21	0.45
2:F:389:ASN:OD1	1:G:397:LYS:NZ	2.50	0.45
1:G:461:LEU:HD22	1:G:461:LEU:HA	1.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:238:PHE:HE1	1:I:373:ILE:HD12	1.81	0.45
2:J:223:ILE:CD1	2:J:254:GLU:HG3	2.47	0.45
2:J:223:ILE:HD13	2:J:254:GLU:HG3	1.98	0.45
1:K:424:GLN:C	1:K:426:LEU:H	2.21	0.45
1:M:443:LEU:HD11	1:M:454:VAL:HG13	1.99	0.45
1:M:484:LEU:HG	2:N:465:ASN:CG	2.36	0.45
2:N:416:ALA:O	2:N:451:ARG:HG3	2.16	0.45
2:N:475:PHE:HA	2:N:498:CYS:O	2.16	0.45
2:P:42:LYS:HG3	2:P:43:GLU:H	1.82	0.45
2:P:139:PHE:HA	2:P:274:PHE:CZ	2.52	0.45
2:P:183:PHE:O	2:P:191:GLU:HA	2.17	0.45
1:A:360:GLU:HA	1:A:360:GLU:OE2	2.17	0.44
2:B:132:THR:HG23	2:B:133:LYS:N	2.32	0.44
2:B:479:ASP:HA	2:B:494:TYR:O	2.16	0.44
2:B:503:ASN:O	2:B:577:PRO:HD2	2.17	0.44
1:C:76:HIS:O	1:C:79:ARG:HB3	2.17	0.44
1:C:194:PRO:CA	1:C:197:ILE:HD13	2.45	0.44
1:C:226:PRO:HG3	1:C:490:SER:CB	2.48	0.44
1:E:444:LEU:N	1:E:445:PRO:HD2	2.32	0.44
1:E:477:LEU:HA	1:E:482:VAL:HG23	1.98	0.44
2:F:3:THR:CG2	2:F:64:LYS:HG3	2.47	0.44
2:F:131:PHE:CD2	2:F:136:TYR:HA	2.52	0.44
2:F:190:LYS:HB3	2:F:191:GLU:H	1.44	0.44
2:F:584:ASN:ND2	2:F:587:PRO:HD3	2.31	0.44
2:H:3:THR:HG21	2:H:64:LYS:HG3	1.99	0.44
2:H:122:VAL:HG22	2:H:123:ALA:N	2.31	0.44
2:H:217:LYS:HB3	2:H:218:PRO:CD	2.40	0.44
2:H:465:ASN:HB3	2:H:468:MET:HG2	1.99	0.44
1:I:262:LEU:HD21	1:I:333:ALA:HB2	1.98	0.44
2:J:124:ALA:HB1	2:J:300:PRO:HD3	1.98	0.44
1:K:37:VAL:C	1:K:39:GLY:N	2.70	0.44
1:K:238:PHE:HE1	1:K:373:ILE:HD12	1.82	0.44
1:K:294:GLN:NE2	1:K:297:LYS:HD3	2.32	0.44
2:L:39:THR:OG1	2:L:44:ILE:HD11	2.17	0.44
2:L:429:VAL:HG12	2:L:430:ASP:N	2.32	0.44
2:L:455:LEU:HD13	2:L:459:LEU:HD22	1.99	0.44
2:L:497:LEU:C	2:L:497:LEU:HD23	2.38	0.44
2:N:537:ALA:CB	1:O:212:PHE:CD1	2.99	0.44
1:O:197:ILE:C	1:O:199:SER:N	2.71	0.44
1:O:419:VAL:O	1:O:432:VAL:HG22	2.17	0.44
2:P:198:MET:SD	2:P:220:TYR:HE2	2.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:246:MET:HG3	1:A:352:SER:HB3	1.98	0.44
1:A:301:SER:HB2	1:A:312:TYR:O	2.17	0.44
1:A:414:GLU:HG3	1:A:415:PRO:HD3	2.00	0.44
1:C:325:ARG:HG2	1:C:325:ARG:NH2	2.27	0.44
1:C:474:ILE:O	1:C:476:GLU:N	2.49	0.44
2:D:45:ILE:CD1	2:D:52:VAL:HB	2.45	0.44
2:D:183:PHE:O	2:D:191:GLU:HA	2.17	0.44
2:D:486:ASN:N	2:D:486:ASN:HD22	2.15	0.44
1:E:259:PHE:N	1:E:259:PHE:CD2	2.84	0.44
2:F:414:THR:HG22	2:F:415:PHE:O	2.16	0.44
2:H:105:ILE:O	2:H:106:GLN:C	2.56	0.44
2:H:132:THR:HG22	2:H:134:ASP:N	2.31	0.44
2:H:211:LEU:CG	2:H:212:HIS:N	2.78	0.44
2:H:331:LEU:HD21	2:H:368:ALA:HB2	2.00	0.44
2:H:503:ASN:O	2:H:577:PRO:HD2	2.17	0.44
2:H:575:THR:HB	2:H:576:MET:CE	2.47	0.44
2:H:576:MET:HE2	2:H:576:MET:H	1.82	0.44
2:J:553:ALA:O	2:J:554:ARG:C	2.55	0.44
1:M:437:VAL:O	1:M:438:PHE:O	2.34	0.44
2:N:59:ASP:O	2:N:59:ASP:CG	2.56	0.44
1:O:288:LEU:HD22	1:O:288:LEU:N	2.27	0.44
1:O:305:TYR:HB3	1:O:444:LEU:HD12	1.99	0.44
1:O:414:GLU:HG2	1:O:437:VAL:O	2.18	0.44
1:A:262:LEU:CD2	1:A:329:THR:HG22	2.47	0.44
1:A:267:GLN:NE2	2:B:262:LYS:HZ1	2.15	0.44
1:A:494:ARG:HG2	2:D:395:LYS:HE2	1.98	0.44
2:B:355:ARG:HD3	2:B:357:ASP:OD1	2.17	0.44
2:B:416:ALA:O	2:B:451:ARG:HG3	2.17	0.44
2:D:132:THR:HG22	2:D:135:ARG:H	1.82	0.44
2:D:132:THR:HB	2:D:135:ARG:CG	2.47	0.44
2:D:360:HIS:CG	2:D:361:ALA:N	2.85	0.44
2:F:15:LEU:CD1	2:F:19:TYR:HE2	2.29	0.44
2:F:197:LEU:HA	2:F:200:ILE:HG12	2.00	0.44
2:F:340:VAL:CG1	2:F:344:GLY:HA2	2.46	0.44
2:F:482:ILE:CG2	2:F:483:LYS:N	2.80	0.44
1:G:258:ASN:ND2	1:G:259:PHE:CE1	2.81	0.44
2:H:71:ARG:CG	2:H:355:ARG:CZ	2.93	0.44
2:H:223:ILE:HB	2:H:231:LEU:HB2	1.99	0.44
2:H:449:VAL:CG1	2:H:450:ALA:N	2.81	0.44
1:I:410:ASN:HB2	1:I:413:THR:OG1	2.17	0.44
1:I:437:VAL:HG13	1:I:455:ILE:HG22	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:27:LEU:CD1	2:J:84:LEU:HD22	2.47	0.44
2:J:237:ILE:H	2:J:237:ILE:HD12	1.82	0.44
1:K:476:GLU:HG3	1:K:476:GLU:O	2.17	0.44
2:L:103:GLY:O	2:L:105:ILE:N	2.44	0.44
2:L:486:ASN:HD22	2:L:486:ASN:N	2.13	0.44
1:M:196:MET:SD	1:M:201:SER:HB3	2.57	0.44
2:N:132:THR:HG22	2:N:135:ARG:H	1.82	0.44
2:N:181:ILE:O	2:N:193:THR:HA	2.17	0.44
1:O:279:LEU:HD12	2:P:437:VAL:CG1	2.45	0.44
1:O:365:THR:HG22	1:O:365:THR:O	2.16	0.44
2:P:40:SER:HB3	2:P:58:SER:O	2.17	0.44
2:P:129:ILE:HD12	2:P:251:ILE:CD1	2.47	0.44
1:A:266:GLN:HB2	1:A:312:TYR:HE2	1.83	0.44
2:B:167:LEU:HD13	2:B:171:PHE:HE2	1.82	0.44
2:B:519:MET:HE1	2:B:522:LEU:HD12	2.00	0.44
1:C:20:GLY:HA3	1:C:174:TRP:HZ2	1.82	0.44
1:C:100:GLY:O	1:C:102:VAL:N	2.50	0.44
1:C:265:PRO:HD3	1:C:310:TYR:CZ	2.53	0.44
1:C:373:ILE:HD13	1:C:459:LEU:HD11	1.98	0.44
1:C:440:PRO:HG3	2:D:360:HIS:HE2	1.83	0.44
2:D:128:ASN:HA	2:D:249:ARG:HD3	1.99	0.44
2:D:139:PHE:CZ	2:D:161:THR:HG21	2.51	0.44
2:D:485:SER:C	2:D:486:ASN:HD22	2.20	0.44
1:E:221:SER:HB3	1:E:222:GLY:H	1.51	0.44
2:H:157:VAL:HG11	2:H:266:VAL:HG21	1.99	0.44
2:H:305:ARG:NH1	2:H:358:ILE:O	2.47	0.44
1:I:236:GLN:O	1:I:240:GLU:HG3	2.18	0.44
1:I:267:GLN:HE22	2:J:262:LYS:HE3	1.82	0.44
1:I:353:ILE:HG12	1:I:373:ILE:HB	1.99	0.44
1:I:444:LEU:N	1:I:445:PRO:HD2	2.33	0.44
1:I:495:LEU:O	1:I:495:LEU:HD23	2.17	0.44
2:J:143:GLN:HG3	2:J:159:ILE:HD12	1.99	0.44
2:J:268:ASP:O	2:J:272:THR:HG22	2.16	0.44
2:J:274:PHE:C	2:J:276:GLU:H	2.20	0.44
2:J:304:TYR:CD1	2:J:353:PRO:HD3	2.53	0.44
1:K:396:THR:C	1:K:398:LEU:H	2.21	0.44
1:M:299:THR:HG21	1:M:305:TYR:CD1	2.53	0.44
2:N:174:THR:OG1	2:N:175:ALA:N	2.48	0.44
2:N:450:ALA:HB3	2:N:481:VAL:HG11	1.99	0.44
2:N:534:VAL:HG21	2:N:536:LYS:HE3	1.98	0.44
1:O:267:GLN:O	1:O:267:GLN:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:316:LEU:CD2	1:O:320:ARG:HD3	2.47	0.44
2:P:429:VAL:HG12	2:P:430:ASP:N	2.32	0.44
1:A:225:HIS:NE2	1:A:477:LEU:O	2.47	0.44
1:A:267:GLN:HE22	2:B:262:LYS:HZ2	1.66	0.44
2:B:126:LEU:HD23	2:B:126:LEU:N	2.33	0.44
2:B:142:LEU:HD23	2:B:142:LEU:C	2.38	0.44
2:B:267:LEU:HD23	2:B:267:LEU:C	2.37	0.44
2:D:147:HIS:CE1	2:D:159:ILE:HG12	2.53	0.44
2:D:157:VAL:HG22	2:D:263:ALA:HB2	1.99	0.44
2:D:420:GLN:HG2	2:D:449:VAL:CG2	2.47	0.44
1:E:226:PRO:HG3	1:E:490:SER:CB	2.47	0.44
1:E:228:LEU:HD12	2:F:411:GLU:CD	2.38	0.44
2:F:261:THR:HA	2:F:264:LYS:HE2	1.98	0.44
2:H:132:THR:HB	2:H:135:ARG:HG3	2.00	0.44
2:J:142:LEU:HD23	2:J:146:LEU:HG	2.00	0.44
2:J:157:VAL:HG11	2:J:266:VAL:HG21	1.99	0.44
2:J:508:PHE:HE1	2:J:562:GLY:CA	2.27	0.44
1:K:325:ARG:HH21	1:K:325:ARG:CG	2.30	0.44
2:L:576:MET:H	2:L:576:MET:HE2	1.83	0.44
2:N:129:ILE:HD12	2:N:251:ILE:CD1	2.48	0.44
2:N:308:MET:HE3	2:N:309:VAL:C	2.38	0.44
2:N:576:MET:HB3	2:N:577:PRO:CD	2.47	0.44
1:O:259:PHE:CD2	1:O:271:ARG:HG3	2.53	0.44
1:A:361:THR:O	1:A:362:LEU:C	2.56	0.44
1:A:414:GLU:HG3	1:A:415:PRO:CD	2.48	0.44
2:B:260:PHE:HE1	2:B:264:LYS:CD	2.22	0.44
1:C:423:HIS:ND1	1:C:424:GLN:N	2.66	0.44
1:C:444:LEU:N	1:C:445:PRO:HD2	2.33	0.44
2:D:71:ARG:HG3	2:D:355:ARG:CZ	2.45	0.44
2:D:576:MET:SD	2:D:576:MET:N	2.90	0.44
2:F:334:MET:HG2	2:F:367:ASP:CB	2.46	0.44
2:F:480:ILE:C	2:F:480:ILE:HD12	2.37	0.44
1:G:251:PHE:H	2:H:493:ASN:HD21	1.65	0.44
1:G:404:ARG:HD3	1:G:429:TRP:CZ2	2.52	0.44
1:I:212:PHE:CE1	2:L:537:ALA:HB2	2.53	0.44
2:J:147:HIS:HE1	2:J:158:ALA:HA	1.83	0.44
1:K:280:ARG:O	1:K:283:ALA:HB2	2.17	0.44
1:M:264:GLN:HE21	1:M:264:GLN:HB3	1.65	0.44
1:M:268:HIS:HB3	1:M:271:ARG:HD2	1.99	0.44
1:M:414:GLU:HG3	1:M:415:PRO:CD	2.47	0.44
1:A:350:TYR:HB2	1:A:376:VAL:CG1	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:387:LEU:HD13	1:A:387:LEU:C	2.38	0.44
2:B:132:THR:HB	2:B:135:ARG:CG	2.48	0.44
2:B:430:ASP:C	2:B:432:SER:H	2.21	0.44
2:B:554:ARG:HH22	1:C:502:PRO:HG3	1.81	0.44
1:C:51:ILE:HD12	1:C:51:ILE:O	2.18	0.44
1:C:458:GLY:HA3	3:C:509:PHE:HB2	1.99	0.44
2:D:68:PRO:C	2:D:70:ASN:N	2.70	0.44
2:D:70:ASN:HD22	2:D:71:ARG:CZ	2.30	0.44
1:E:362:LEU:HD21	1:E:475:ARG:NH2	2.33	0.44
1:E:410:ASN:HB2	1:E:413:THR:OG1	2.18	0.44
1:E:473:ASN:OD1	1:E:473:ASN:N	2.50	0.44
2:F:128:ASN:HA	2:F:249:ARG:HD3	1.98	0.44
2:F:142:LEU:HD23	2:F:146:LEU:HG	2.00	0.44
2:F:201:TYR:C	2:F:203:THR:N	2.69	0.44
2:F:213:ILE:O	2:F:213:ILE:CG2	2.66	0.44
2:H:420:GLN:NE2	2:H:431:ILE:HG21	2.32	0.44
2:H:517:ARG:HG3	2:H:521:LEU:HD23	1.98	0.44
1:I:289:PRO:O	1:I:290:MET:C	2.56	0.44
2:J:133:LYS:H	2:J:133:LYS:CD	2.11	0.44
1:K:253:GLU:OE1	1:K:257:TRP:CB	2.65	0.44
2:L:183:PHE:O	2:L:191:GLU:HA	2.17	0.44
1:M:214:ALA:O	1:M:215:HIS:HB3	2.18	0.44
1:O:277:PHE:CE2	1:O:359:ASN:HB2	2.53	0.44
1:A:202:TRP:O	1:A:203:ARG:O	2.36	0.44
1:A:226:PRO:HG3	1:A:490:SER:CB	2.48	0.44
2:B:132:THR:O	2:B:133:LYS:C	2.56	0.44
2:B:406:ALA:O	1:C:221:SER:HA	2.18	0.44
1:C:63:LEU:HD21	1:C:71:ALA:HB2	2.00	0.44
1:C:459:LEU:HD12	1:C:459:LEU:C	2.39	0.44
2:D:450:ALA:HB3	2:D:481:VAL:HG11	1.98	0.44
1:E:298:ARG:HH11	1:E:298:ARG:CG	2.31	0.44
1:E:391:LEU:HD13	1:E:419:VAL:HG21	2.00	0.44
2:F:268:ASP:O	2:F:272:THR:HG22	2.18	0.44
2:F:271:VAL:HG22	2:F:284:VAL:CG2	2.48	0.44
2:F:310:ARG:NH2	2:F:312:ASP:HB2	2.32	0.44
2:H:122:VAL:CG2	2:H:299:PHE:CD2	3.01	0.44
2:H:147:HIS:ND1	2:H:154:ARG:HG2	2.32	0.44
2:H:281:GLN:HG2	2:H:282:PHE:CD1	2.53	0.44
2:J:3:THR:HG21	2:J:64:LYS:HG3	2.00	0.44
2:J:126:LEU:CD2	2:J:251:ILE:HB	2.48	0.44
2:J:446:GLU:H	2:J:446:GLU:HG2	1.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:226:PRO:HG2	1:K:486:MET:HE1	2.00	0.44
1:K:427:LYS:HE2	1:K:427:LYS:HB3	1.83	0.44
1:K:458:GLY:HA3	3:K:509:PHE:CB	2.47	0.44
2:L:122:VAL:HG22	2:L:267:LEU:HD12	2.00	0.44
2:L:508:PHE:HE1	2:L:562:GLY:CA	2.23	0.44
2:L:515:LEU:HD11	2:L:551:ILE:CG2	2.47	0.44
1:M:343:LYS:CB	1:M:344:PRO:HD3	2.31	0.44
2:N:53:LYS:N	2:N:53:LYS:HD2	2.32	0.44
2:N:70:ASN:HB3	2:N:71:ARG:HD2	2.00	0.44
2:N:566:PRO:HB3	1:O:202:TRP:CZ3	2.53	0.44
1:O:373:ILE:CG2	1:O:461:LEU:HD23	2.48	0.44
2:P:147:HIS:HE1	2:P:158:ALA:HA	1.83	0.44
2:P:437:VAL:O	2:P:449:VAL:HG13	2.18	0.44
2:P:482:ILE:CG2	2:P:483:LYS:N	2.80	0.44
1:A:477:LEU:HD13	1:A:478:VAL:N	2.33	0.44
2:B:514:LEU:HD23	2:B:581:LEU:HD23	2.00	0.44
1:C:365:THR:CG2	1:C:474:ILE:H	2.31	0.44
2:D:146:LEU:HD11	2:D:159:ILE:HD13	2.00	0.44
2:D:437:VAL:O	2:D:449:VAL:HG13	2.17	0.44
2:F:147:HIS:HE1	2:F:159:ILE:H	1.63	0.44
1:G:189:GLU:CB	1:G:206:PRO:HA	2.48	0.44
2:H:87:PHE:HE1	2:H:371:ALA:HA	1.83	0.44
2:H:450:ALA:HB3	2:H:481:VAL:HG11	1.98	0.44
2:H:576:MET:HB3	2:H:577:PRO:CD	2.47	0.44
1:I:190:THR:HG23	1:I:191:GLU:H	1.81	0.44
1:I:197:ILE:CD1	2:L:566:PRO:HG3	2.45	0.44
2:J:122:VAL:CG2	2:J:299:PHE:CG	3.00	0.44
2:J:129:ILE:HD12	2:J:251:ILE:CD1	2.48	0.44
2:J:132:THR:CG2	2:J:133:LYS:N	2.81	0.44
2:J:264:LYS:HD2	2:J:301:GLU:CD	2.38	0.44
2:J:355:ARG:HD3	2:J:357:ASP:OD1	2.17	0.44
2:J:561:LEU:HD23	2:J:562:GLY:N	2.32	0.44
1:K:440:PRO:HG3	2:L:360:HIS:HE2	1.83	0.44
2:L:126:LEU:HB2	2:L:278:CYS:SG	2.58	0.44
2:L:420:GLN:NE2	2:L:431:ILE:HG21	2.32	0.44
1:M:193:SER:HB3	1:M:195:GLU:CD	2.38	0.44
1:M:280:ARG:HB3	2:N:438:HIS:O	2.18	0.44
1:M:466:MET:O	1:M:467:ILE:C	2.56	0.44
2:N:183:PHE:O	2:N:191:GLU:HA	2.18	0.44
2:P:126:LEU:HB2	2:P:278:CYS:SG	2.58	0.44
2:P:127:ARG:NH1	2:P:285:GLU:OE1	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:458:LEU:O	2:P:461:THR:HB	2.18	0.44
1:A:235:ARG:NH1	1:A:245:GLU:OE1	2.51	0.43
2:B:555:GLY:O	2:B:556:GLN:HB3	2.17	0.43
1:C:23:SER:HA	1:C:37:VAL:HG21	1.99	0.43
1:C:124:ARG:HD3	1:C:126:PHE:CE1	2.53	0.43
2:D:6:VAL:HB	2:D:77:LEU:HD12	2.00	0.43
2:D:147:HIS:HE1	2:D:158:ALA:HA	1.82	0.43
2:D:197:LEU:HA	2:D:200:ILE:CG1	2.48	0.43
2:D:223:ILE:HB	2:D:231:LEU:HB2	2.00	0.43
2:D:575:THR:HB	2:D:576:MET:CE	2.48	0.43
1:E:237:ILE:HD12	1:E:397:LYS:HB3	2.00	0.43
1:E:473:ASN:HD22	1:E:476:GLU:CD	2.20	0.43
2:F:400:LEU:CD2	1:G:492:LEU:HD11	2.48	0.43
2:F:495:ARG:HH11	2:F:495:ARG:HG3	1.82	0.43
2:H:71:ARG:HG2	2:H:355:ARG:NH2	2.33	0.43
1:I:301:SER:O	1:I:311:LYS:HA	2.17	0.43
2:J:6:VAL:CG2	2:J:11:LEU:HD12	2.47	0.43
2:J:68:PRO:O	2:J:70:ASN:N	2.51	0.43
2:J:480:ILE:HG12	2:J:496:HIS:NE2	2.33	0.43
1:K:497:ALA:C	1:K:498:GLU:HG3	2.39	0.43
2:L:68:PRO:O	2:L:70:ASN:N	2.51	0.43
2:L:515:LEU:HD13	2:L:551:ILE:HD12	1.97	0.43
2:L:543:PHE:N	2:L:543:PHE:CD1	2.87	0.43
1:M:216:GLY:O	2:P:513:GLY:CA	2.66	0.43
1:M:423:HIS:C	1:M:425:GLY:N	2.71	0.43
2:N:181:ILE:HD11	2:N:194:ALA:HB2	2.00	0.43
2:N:197:LEU:HA	2:N:200:ILE:CG1	2.48	0.43
2:N:508:PHE:HE1	2:N:562:GLY:CA	2.24	0.43
2:N:547:ARG:NH2	1:O:210:TYR:HB2	2.33	0.43
2:N:569:ILE:O	2:N:574:LEU:HB2	2.18	0.43
1:O:272:ASP:OD1	1:O:273:GLN:N	2.50	0.43
2:P:3:THR:CG2	2:P:64:LYS:HG3	2.48	0.43
2:P:103:GLY:O	2:P:105:ILE:N	2.44	0.43
2:P:183:PHE:CD2	2:P:230:VAL:HG11	2.52	0.43
2:P:575:THR:HB	2:P:576:MET:CE	2.47	0.43
1:A:426:LEU:C	1:A:428:LYS:H	2.21	0.43
2:B:223:ILE:HB	2:B:231:LEU:HB2	2.00	0.43
1:C:298:ARG:CG	1:C:298:ARG:HH11	2.31	0.43
1:C:373:ILE:CG2	1:C:461:LEU:HD23	2.48	0.43
1:C:382:LEU:HA	1:C:386:HIS:ND1	2.33	0.43
1:C:498:GLU:CB	1:C:499:PRO:CD	2.94	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:308:MET:HE3	2:D:309:VAL:CA	2.48	0.43
2:D:429:VAL:HG12	2:D:430:ASP:N	2.33	0.43
2:D:498:CYS:HB2	2:D:582:GLU:HG3	2.00	0.43
1:E:479:GLY:CA	2:F:415:PHE:CE1	3.01	0.43
2:F:105:ILE:O	2:F:106:GLN:C	2.57	0.43
1:G:226:PRO:HG2	1:G:486:MET:CE	2.47	0.43
1:G:414:GLU:HG3	1:G:415:PRO:HD3	1.97	0.43
2:H:68:PRO:C	2:H:70:ASN:N	2.71	0.43
2:H:103:GLY:O	2:H:105:ILE:N	2.43	0.43
2:H:183:PHE:O	2:H:191:GLU:HA	2.17	0.43
2:H:200:ILE:C	2:H:200:ILE:HD12	2.39	0.43
1:I:222:GLY:HA3	2:J:405:ALA:O	2.18	0.43
1:I:277:PHE:CE2	1:I:359:ASN:CG	2.91	0.43
1:I:325:ARG:NH1	1:I:354:ASP:OD2	2.50	0.43
2:J:113:GLU:H	2:J:113:GLU:CD	2.22	0.43
2:J:152:ARG:HB2	2:J:156:LEU:CD1	2.49	0.43
1:K:279:LEU:HA	2:L:440:SER:H	1.82	0.43
1:K:328:THR:OG1	1:K:372:GLN:NE2	2.50	0.43
2:L:355:ARG:HB3	2:L:358:ILE:HD13	2.00	0.43
1:M:226:PRO:HG3	1:M:490:SER:CB	2.48	0.43
2:N:132:THR:HB	2:N:135:ARG:CG	2.48	0.43
2:N:223:ILE:CD1	2:N:254:GLU:HG3	2.48	0.43
2:P:40:SER:C	2:P:42:LYS:N	2.71	0.43
2:P:211:LEU:CG	2:P:212:HIS:N	2.80	0.43
2:P:465:ASN:HB3	2:P:468:MET:HG2	2.00	0.43
2:P:493:ASN:HD22	2:P:493:ASN:N	2.16	0.43
1:A:463:ARG:N	1:A:464:PRO:HD2	2.33	0.43
2:B:147:HIS:NE2	2:B:159:ILE:HG12	2.33	0.43
2:B:407:ALA:CA	1:C:221:SER:HB3	2.47	0.43
1:C:7:ALA:O	1:C:10:LEU:N	2.51	0.43
1:C:466:MET:O	1:C:471:ILE:N	2.52	0.43
2:D:157:VAL:HG21	2:D:263:ALA:N	2.32	0.43
2:D:181:ILE:CD1	2:D:194:ALA:HB2	2.47	0.43
2:D:291:PHE:CE1	2:D:297:HIS:HD2	2.36	0.43
2:D:416:ALA:O	2:D:451:ARG:HG3	2.17	0.43
1:E:281:ASP:HB3	2:F:438:HIS:H	1.81	0.43
1:E:414:GLU:HG2	1:E:437:VAL:O	2.19	0.43
1:E:471:ILE:HD11	1:E:473:ASN:HD21	1.83	0.43
2:F:131:PHE:CE1	2:F:251:ILE:HD11	2.54	0.43
2:F:182:LYS:HB2	1:K:472:ASN:CB	2.48	0.43
2:F:217:LYS:HB3	2:F:218:PRO:CD	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:194:PRO:O	1:G:195:GLU:CB	2.66	0.43
1:G:444:LEU:N	1:G:445:PRO:HD2	2.33	0.43
1:I:382:LEU:HA	1:I:386:HIS:ND1	2.33	0.43
2:J:15:LEU:CD1	2:J:19:TYR:HE2	2.31	0.43
2:J:120:PHE:HB3	2:J:291:PHE:HE2	1.83	0.43
2:J:139:PHE:HA	2:J:274:PHE:CZ	2.54	0.43
2:J:420:GLN:HG2	2:J:449:VAL:HG23	2.00	0.43
2:J:471:PRO:HA	2:J:502:TYR:O	2.18	0.43
1:K:185:ILE:C	1:K:187:LYS:N	2.72	0.43
2:L:71:ARG:HD2	2:L:71:ARG:N	2.33	0.43
1:M:237:ILE:HD12	1:M:397:LYS:HB3	1.99	0.43
1:M:267:GLN:O	1:M:268:HIS:C	2.56	0.43
1:M:367:LEU:HB3	1:M:368:ALA:H	1.56	0.43
1:O:226:PRO:HG2	1:O:486:MET:CE	2.48	0.43
1:O:282:PRO:CD	2:P:437:VAL:HG13	2.47	0.43
1:O:437:VAL:O	1:O:438:PHE:O	2.36	0.43
1:A:267:GLN:CB	2:B:152:ARG:HD2	2.44	0.43
2:D:167:LEU:HD13	2:D:171:PHE:HE2	1.81	0.43
2:D:482:ILE:CG2	2:D:483:LYS:N	2.82	0.43
2:F:139:PHE:HE2	2:F:161:THR:HG21	1.83	0.43
2:F:472:LEU:HB2	2:F:502:TYR:HB3	2.00	0.43
1:G:373:ILE:HG12	1:G:459:LEU:HD12	2.01	0.43
2:H:42:LYS:HE3	2:H:59:ASP:OD1	2.17	0.43
2:H:358:ILE:O	2:H:358:ILE:HG22	2.19	0.43
1:I:272:ASP:C	1:I:274:HIS:N	2.71	0.43
2:J:118:ARG:CZ	2:J:257:GLY:HA2	2.48	0.43
2:J:420:GLN:HG2	2:J:449:VAL:CG2	2.48	0.43
1:K:234:PHE:CZ	1:K:398:LEU:HD21	2.53	0.43
1:K:414:GLU:HG3	1:K:415:PRO:CD	2.47	0.43
2:L:71:ARG:CG	2:L:355:ARG:HH12	2.29	0.43
2:N:47:LYS:HE3	2:N:47:LYS:CA	2.43	0.43
2:N:67:VAL:CG1	2:N:68:PRO:HD2	2.46	0.43
2:N:171:PHE:HD2	2:N:231:LEU:HD21	1.83	0.43
2:N:190:LYS:HB3	2:N:191:GLU:H	1.47	0.43
2:N:444:THR:HG21	2:N:446:GLU:HG3	2.00	0.43
2:N:482:ILE:HG22	2:N:483:LYS:O	2.17	0.43
2:N:527:GLY:O	2:N:532:GLY:HA3	2.18	0.43
1:O:414:GLU:HG3	1:O:415:PRO:HD3	1.99	0.43
2:P:112:GLU:C	2:P:114:THR:H	2.22	0.43
2:P:131:PHE:CD2	2:P:136:TYR:HA	2.52	0.43
2:P:197:LEU:HA	2:P:200:ILE:CG1	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:63:LEU:HD13	1:C:143:VAL:CG1	2.49	0.43
1:C:175:VAL:O	1:C:175:VAL:HG23	2.18	0.43
2:D:59:ASP:OD2	2:D:59:ASP:C	2.57	0.43
2:D:503:ASN:O	2:D:577:PRO:HD2	2.18	0.43
2:D:553:ALA:O	2:D:554:ARG:C	2.57	0.43
2:F:17:ARG:CZ	2:F:19:TYR:CE1	3.01	0.43
2:F:98:ARG:HG2	2:F:98:ARG:HH11	1.83	0.43
2:F:223:ILE:CD1	2:F:254:GLU:HG3	2.49	0.43
2:F:280:ASN:O	2:F:283:THR:HG22	2.18	0.43
2:F:310:ARG:HA	2:F:346:GLN:HA	1.99	0.43
2:F:495:ARG:NH1	2:F:495:ARG:HG3	2.33	0.43
1:G:260:ASP:CG	1:G:271:ARG:HH22	2.22	0.43
1:G:357:PHE:N	1:G:357:PHE:CD1	2.86	0.43
1:G:370:PHE:CB	1:G:462:GLU:OE2	2.67	0.43
2:H:42:LYS:O	2:H:43:GLU:C	2.57	0.43
2:H:57:ALA:O	2:H:60:VAL:HG23	2.18	0.43
2:H:114:THR:O	2:H:117:ILE:HD12	2.18	0.43
2:H:120:PHE:CD1	2:H:120:PHE:N	2.85	0.43
2:H:482:ILE:CG2	2:H:483:LYS:N	2.81	0.43
2:H:528:GLU:O	2:H:529:ASP:C	2.57	0.43
1:I:188:GLN:OE1	1:I:208:LYS:HE2	2.18	0.43
2:J:45:ILE:HG23	2:J:48:GLU:CG	2.48	0.43
2:J:190:LYS:HB3	2:J:191:GLU:H	1.46	0.43
2:J:308:MET:HG2	2:J:347:ILE:O	2.19	0.43
1:K:480:HIS:ND1	2:L:460:LYS:HE2	2.32	0.43
2:L:147:HIS:O	2:L:151:CYS:HB2	2.19	0.43
1:M:227:LEU:HD22	1:M:461:LEU:HD12	2.00	0.43
1:M:349:LYS:HE2	2:P:385:TYR:CE1	2.53	0.43
1:M:425:GLY:C	1:M:426:LEU:HD22	2.39	0.43
2:N:401:ARG:HG2	2:N:477:ILE:HD12	1.99	0.43
2:N:472:LEU:HB2	2:N:502:TYR:HB3	2.00	0.43
1:O:210:TYR:CD2	1:O:212:PHE:HE2	2.36	0.43
1:O:275:ASP:O	1:O:359:ASN:HB3	2.18	0.43
1:O:365:THR:HG23	1:O:475:ARG:CG	2.48	0.43
1:O:460:SER:O	1:O:464:PRO:CD	2.67	0.43
2:P:126:LEU:CG	2:P:129:ILE:HD11	2.38	0.43
2:P:304:TYR:CD1	2:P:353:PRO:HD3	2.53	0.43
2:P:431:ILE:HD12	2:P:431:ILE:N	2.14	0.43
1:A:316:LEU:HD23	1:A:316:LEU:C	2.38	0.43
1:A:398:LEU:HD12	1:A:398:LEU:HA	1.81	0.43
1:A:469:TYR:O	1:A:470:GLY:O	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:512:HIS:ND1	1:C:216:GLY:CA	2.82	0.43
1:E:265:PRO:CA	1:E:300:HIS:HE1	2.26	0.43
1:E:327:HIS:HA	1:E:356:VAL:HG11	1.99	0.43
2:F:57:ALA:C	2:F:59:ASP:N	2.72	0.43
2:F:291:PHE:CD1	2:F:297:HIS:CD2	3.07	0.43
2:F:434:THR:O	2:F:435:LYS:HB2	2.18	0.43
1:G:225:HIS:CD2	2:H:413:LEU:HB2	2.53	0.43
2:H:131:PHE:CD2	2:H:136:TYR:HA	2.52	0.43
1:I:289:PRO:HG2	1:I:292:TYR:HB3	2.01	0.43
1:I:328:THR:OG1	1:I:372:GLN:NE2	2.49	0.43
1:I:374:GLU:OE1	3:I:509:PHE:CB	2.65	0.43
2:J:272:THR:CG2	2:J:273:MET:N	2.82	0.43
2:J:308:MET:HE3	2:J:309:VAL:N	2.33	0.43
1:K:197:ILE:HD13	1:K:197:ILE:N	2.32	0.43
2:L:122:VAL:HG22	2:L:123:ALA:N	2.34	0.43
1:M:288:LEU:HD23	1:M:288:LEU:HA	1.90	0.43
1:M:480:HIS:C	1:M:482:VAL:H	2.20	0.43
2:N:3:THR:CG2	2:N:64:LYS:HG3	2.48	0.43
1:O:233:GLN:OE1	1:O:495:LEU:HG	2.18	0.43
1:O:289:PRO:O	1:O:293:VAL:HG23	2.18	0.43
2:P:349:ILE:HD13	2:P:364:ILE:HG21	1.99	0.43
1:A:251:PHE:H	2:B:493:ASN:ND2	2.16	0.43
2:B:126:LEU:CD2	2:B:126:LEU:N	2.82	0.43
2:B:142:LEU:HD23	2:B:146:LEU:HG	2.00	0.43
2:B:391:PHE:CD2	2:B:391:PHE:C	2.91	0.43
1:C:84:ILE:HB	1:C:89:LEU:CD2	2.48	0.43
1:C:387:LEU:HD11	1:C:435:SER:OG	2.18	0.43
1:C:396:THR:C	1:C:398:LEU:H	2.20	0.43
2:D:357:ASP:OD1	2:D:358:ILE:HD12	2.19	0.43
2:D:533:TYR:HA	2:D:552:PHE:O	2.19	0.43
1:E:261:ALA:HB1	1:E:292:TYR:OH	2.18	0.43
1:E:484:LEU:HG	2:F:465:ASN:CG	2.38	0.43
1:G:272:ASP:O	1:G:273:GLN:C	2.57	0.43
2:H:112:GLU:C	2:H:114:THR:H	2.22	0.43
2:H:118:ARG:NH2	2:H:256:THR:O	2.52	0.43
2:J:27:LEU:CD1	2:J:84:LEU:HD13	2.48	0.43
2:J:485:SER:C	2:J:486:ASN:HD22	2.22	0.43
1:K:298:ARG:CG	1:K:298:ARG:HH11	2.31	0.43
1:K:373:ILE:CG2	1:K:461:LEU:HD23	2.49	0.43
1:K:397:LYS:O	1:K:495:LEU:CD1	2.66	0.43
2:L:68:PRO:C	2:L:70:ASN:N	2.70	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:126:LEU:N	2:L:126:LEU:CD2	2.82	0.43
2:L:465:ASN:HB3	2:L:468:MET:HG2	2.00	0.43
2:L:482:ILE:HG22	2:L:483:LYS:O	2.19	0.43
2:L:584:ASN:O	2:L:587:PRO:HD2	2.18	0.43
1:M:301:SER:O	1:M:311:LYS:HA	2.19	0.43
1:M:458:GLY:N	3:M:509:PHE:HB2	2.34	0.43
1:M:472:ASN:HB2	1:M:473:ASN:H	1.68	0.43
1:M:492:LEU:O	1:M:494:ARG:HG2	2.18	0.43
2:N:132:THR:HG23	2:N:133:LYS:CD	2.44	0.43
2:N:213:ILE:O	2:N:213:ILE:CG2	2.66	0.43
2:N:275:SER:OG	2:N:282:PHE:HA	2.19	0.43
2:N:530:LYS:HD2	2:N:530:LYS:C	2.39	0.43
1:O:281:ASP:HB3	1:O:282:PRO:CD	2.36	0.43
2:B:12:PHE:HB3	2:B:17:ARG:O	2.19	0.43
2:B:15:LEU:HD13	2:B:19:TYR:HE2	1.84	0.43
2:B:129:ILE:HD12	2:B:251:ILE:CD1	2.49	0.43
2:B:497:LEU:HD23	2:B:497:LEU:O	2.19	0.43
1:C:479:GLY:HA2	2:D:415:PHE:CE1	2.54	0.43
2:D:211:LEU:CG	2:D:212:HIS:N	2.77	0.43
1:E:463:ARG:N	1:E:464:PRO:HD2	2.33	0.43
2:F:132:THR:O	2:F:133:LYS:C	2.56	0.43
2:F:387:ILE:HG23	1:G:241:MET:HG2	2.01	0.43
2:F:479:ASP:HA	2:F:494:TYR:O	2.18	0.43
1:G:188:GLN:HG2	1:G:189:GLU:H	1.83	0.43
1:G:268:HIS:C	1:G:270:ALA:N	2.70	0.43
1:I:356:VAL:CG2	1:I:370:PHE:CE1	3.02	0.43
2:J:350:GLU:O	2:J:352:PRO:HD3	2.19	0.43
1:K:247:PRO:HB3	2:L:391:PHE:CE1	2.54	0.43
2:L:98:ARG:HD2	2:L:98:ARG:O	2.19	0.43
1:M:373:ILE:HG22	1:M:461:LEU:HD23	2.00	0.43
1:M:414:GLU:HG3	1:M:415:PRO:HD3	2.00	0.43
1:M:471:ILE:CG1	1:M:472:ASN:N	2.82	0.43
2:N:68:PRO:C	2:N:70:ASN:N	2.71	0.43
2:N:68:PRO:O	2:N:70:ASN:N	2.52	0.43
2:N:340:VAL:HG11	2:N:344:GLY:HA2	2.01	0.43
1:O:373:ILE:HG22	1:O:461:LEU:HD23	2.01	0.43
1:O:479:GLY:O	1:O:482:VAL:HG12	2.19	0.43
1:A:258:ASN:O	1:A:259:PHE:HD2	2.02	0.43
1:A:298:ARG:HG3	1:A:298:ARG:HH11	1.82	0.43
2:B:122:VAL:CG2	2:B:299:PHE:CG	3.02	0.43
1:C:484:LEU:HG	2:D:465:ASN:CG	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:498:GLU:CG	1:C:499:PRO:HD3	2.49	0.43
2:D:551:ILE:CD1	2:D:561:LEU:HB2	2.36	0.43
1:E:206:PRO:HB2	1:E:208:LYS:HE3	2.00	0.43
1:E:228:LEU:HD12	2:F:411:GLU:OE2	2.18	0.43
1:E:305:TYR:HB3	1:E:444:LEU:HD12	2.00	0.43
1:E:325:ARG:HH21	1:E:325:ARG:CG	2.29	0.43
1:E:414:GLU:HG3	1:E:415:PRO:CD	2.49	0.43
2:F:569:ILE:O	2:F:574:LEU:HB2	2.19	0.43
2:F:589:LEU:HD23	2:F:589:LEU:HA	1.84	0.43
1:G:235:ARG:NH1	1:G:245:GLU:OE1	2.52	0.43
2:H:471:PRO:HA	2:H:502:TYR:O	2.19	0.43
1:I:226:PRO:HG3	1:I:490:SER:CB	2.49	0.43
2:J:181:ILE:CD1	2:J:194:ALA:HB2	2.49	0.43
2:J:321:ARG:CD	2:N:321:ARG:HD3	2.48	0.43
2:J:446:GLU:O	2:J:447:PHE:CD2	2.72	0.43
1:K:189:GLU:HG3	1:K:190:THR:N	2.34	0.43
2:L:132:THR:HG22	2:L:135:ARG:H	1.84	0.43
2:L:183:PHE:CD2	2:L:230:VAL:HG11	2.53	0.43
2:L:450:ALA:HB3	2:L:481:VAL:HG11	2.01	0.43
1:M:218:LEU:HD22	2:P:516:ASP:CB	2.49	0.43
1:M:298:ARG:HH11	1:M:298:ARG:CG	2.32	0.43
1:M:396:THR:C	1:M:398:LEU:H	2.21	0.43
1:M:463:ARG:N	1:M:464:PRO:HD2	2.34	0.43
1:M:477:LEU:CD1	1:M:477:LEU:O	2.67	0.43
2:N:358:ILE:O	2:N:358:ILE:HG22	2.19	0.43
2:N:527:GLY:HA2	2:N:534:VAL:HG12	1.99	0.43
1:O:205:ARG:CG	1:O:206:PRO:HD2	2.42	0.43
1:O:414:GLU:HG3	1:O:415:PRO:CD	2.48	0.43
1:O:466:MET:HG2	1:O:474:ILE:HG23	2.01	0.43
1:O:474:ILE:O	1:O:477:LEU:HD12	2.18	0.43
2:P:38:ILE:HG22	2:P:61:VAL:CG2	2.46	0.43
2:P:225:ASP:OD1	2:P:229:VAL:HB	2.18	0.43
2:P:444:THR:HG21	2:P:446:GLU:HG3	2.01	0.43
2:P:475:PHE:HA	2:P:498:CYS:O	2.19	0.43
1:A:449:PRO:HB2	1:A:451:ASN:OD1	2.19	0.43
2:B:6:VAL:HG21	2:B:11:LEU:HD12	2.01	0.43
2:B:450:ALA:HB3	2:B:481:VAL:HG11	2.01	0.43
2:B:452:THR:O	2:B:452:THR:HG22	2.19	0.43
2:B:512:HIS:HE1	1:C:215:HIS:HA	1.83	0.43
2:B:576:MET:N	2:B:576:MET:SD	2.92	0.43
1:C:77:GLU:H	1:C:77:GLU:CD	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:129:ILE:HD12	2:D:251:ILE:CD1	2.48	0.43
2:D:455:LEU:HD13	2:D:455:LEU:C	2.39	0.43
2:D:479:ASP:HA	2:D:494:TYR:O	2.18	0.43
1:E:359:ASN:OD1	2:F:443:LYS:HE2	2.19	0.43
1:E:497:ALA:C	1:E:498:GLU:HG3	2.39	0.43
2:F:219:LEU:C	2:F:220:TYR:HD1	2.22	0.43
2:F:431:ILE:HD12	2:F:431:ILE:N	2.10	0.43
1:G:225:HIS:NE2	1:G:477:LEU:O	2.50	0.43
1:G:298:ARG:HG3	1:G:298:ARG:HH11	1.84	0.43
1:G:373:ILE:HG22	1:G:461:LEU:HD23	2.01	0.43
2:H:519:MET:HE1	2:H:522:LEU:HD12	2.00	0.43
2:J:115:ALA:O	2:J:116:LYS:CB	2.67	0.43
2:J:340:VAL:HG11	2:J:344:GLY:HA2	2.01	0.43
2:J:515:LEU:HD11	2:J:551:ILE:HD12	1.99	0.43
2:J:544:PHE:HZ	1:K:207:PHE:CD2	2.36	0.43
1:K:211:ASN:C	1:K:213:LEU:H	2.23	0.43
2:L:157:VAL:HG22	2:L:263:ALA:HB2	2.01	0.43
2:L:434:THR:O	2:L:435:LYS:HB2	2.19	0.43
1:M:268:HIS:O	1:M:269:PRO:O	2.36	0.43
1:M:367:LEU:HD23	1:M:474:ILE:CG2	2.48	0.43
1:O:281:ASP:C	1:O:283:ALA:H	2.21	0.43
2:P:114:THR:O	2:P:117:ILE:HD12	2.19	0.43
2:P:132:THR:CG2	2:P:133:LYS:N	2.81	0.43
2:P:223:ILE:HB	2:P:231:LEU:HB2	2.01	0.43
2:P:414:THR:HB	2:P:451:ARG:HH11	1.84	0.43
2:P:576:MET:HE2	2:P:576:MET:H	1.84	0.43
2:B:550:GLU:HB3	2:B:552:PHE:HE1	1.84	0.42
2:D:85:GLN:HB3	2:D:91:ILE:CG2	2.49	0.42
2:D:223:ILE:HD13	2:D:254:GLU:HG3	2.01	0.42
1:E:202:TRP:C	1:E:204:ASP:H	2.21	0.42
1:E:425:GLY:O	1:E:426:LEU:CB	2.67	0.42
1:G:233:GLN:OE1	1:G:495:LEU:CD1	2.66	0.42
1:G:298:ARG:HH11	1:G:298:ARG:CG	2.31	0.42
2:H:17:ARG:CZ	2:H:19:TYR:HE1	2.31	0.42
2:H:528:GLU:O	2:H:530:LYS:N	2.52	0.42
1:I:277:PHE:HE2	1:I:359:ASN:CG	2.23	0.42
1:I:387:LEU:HD11	1:I:435:SER:OG	2.19	0.42
1:I:396:THR:C	1:I:398:LEU:H	2.21	0.42
2:J:120:PHE:CD1	2:J:120:PHE:N	2.87	0.42
2:J:472:LEU:HB2	2:J:502:TYR:HB3	2.01	0.42
1:K:420:PHE:HA	1:K:430:VAL:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:461:LEU:HD22	1:K:461:LEU:HA	1.82	0.42
2:L:3:THR:CG2	2:L:64:LYS:HG3	2.49	0.42
2:L:20:THR:HB	2:L:23:GLU:HG3	2.00	0.42
2:L:91:ILE:HG12	2:L:92:LYS:O	2.18	0.42
2:L:449:VAL:CG1	2:L:450:ALA:N	2.82	0.42
2:L:503:ASN:O	2:L:577:PRO:HD2	2.19	0.42
1:M:271:ARG:HG2	1:M:271:ARG:O	2.19	0.42
2:N:17:ARG:CZ	2:N:19:TYR:CE1	3.01	0.42
2:N:118:ARG:NE	2:N:257:GLY:HA2	2.34	0.42
2:P:68:PRO:C	2:P:70:ASN:N	2.71	0.42
2:P:71:ARG:HD2	2:P:71:ARG:N	2.34	0.42
2:P:118:ARG:NH2	2:P:256:THR:O	2.52	0.42
1:A:243:PHE:CD2	1:A:349:LYS:HB3	2.54	0.42
1:A:462:GLU:H	1:A:462:GLU:HG2	1.54	0.42
2:B:114:THR:O	2:B:117:ILE:HD12	2.19	0.42
2:B:272:THR:HG21	2:B:354:THR:HG22	2.01	0.42
2:B:387:ILE:HG13	1:C:393:GLU:HG2	2.01	0.42
2:B:431:ILE:H	2:B:431:ILE:CD1	2.06	0.42
2:B:451:ARG:HH22	2:B:478:SER:CB	2.32	0.42
1:C:24:ALA:O	1:C:27:ALA:HB3	2.18	0.42
1:C:437:VAL:HG13	1:C:455:ILE:HG22	2.00	0.42
2:D:213:ILE:O	2:D:213:ILE:CG2	2.68	0.42
2:D:340:VAL:HG11	2:D:344:GLY:HA2	2.01	0.42
2:D:535:ILE:N	2:D:535:ILE:CD1	2.80	0.42
1:E:325:ARG:HH21	1:E:356:VAL:HG13	1.82	0.42
2:F:85:GLN:HB3	2:F:91:ILE:HG21	2.00	0.42
2:F:360:HIS:CG	2:F:361:ALA:N	2.88	0.42
2:F:416:ALA:HA	2:F:451:ARG:HG3	1.99	0.42
2:F:537:ALA:CB	1:G:212:PHE:CD2	3.02	0.42
1:G:410:ASN:HB2	1:G:413:THR:OG1	2.18	0.42
2:H:3:THR:CG2	2:H:64:LYS:HG3	2.49	0.42
2:H:183:PHE:CD2	2:H:230:VAL:HG11	2.54	0.42
2:H:197:LEU:HA	2:H:200:ILE:HG12	2.01	0.42
2:H:267:LEU:C	2:H:267:LEU:HD23	2.39	0.42
2:H:446:GLU:H	2:H:446:GLU:HG2	1.62	0.42
2:H:506:PRO:HD3	2:H:577:PRO:HG3	2.01	0.42
1:I:267:GLN:HB3	2:J:152:ARG:NH1	2.25	0.42
1:I:277:PHE:CD1	1:I:324:LEU:HD12	2.50	0.42
1:I:294:GLN:NE2	1:I:297:LYS:HD3	2.35	0.42
2:J:424:ALA:HB1	2:J:429:VAL:O	2.19	0.42
1:K:263:PHE:CZ	1:K:310:TYR:CE1	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:458:GLY:CA	3:K:509:PHE:HB2	2.49	0.42
1:M:356:VAL:O	1:M:369:GLU:HB2	2.19	0.42
1:M:406:LYS:CD	2:N:29:PHE:CE1	2.90	0.42
1:M:440:PRO:HG3	2:N:360:HIS:HE2	1.81	0.42
2:N:355:ARG:HD3	2:N:357:ASP:OD1	2.19	0.42
2:N:452:THR:O	2:N:452:THR:HG22	2.19	0.42
1:O:444:LEU:N	1:O:445:PRO:HD2	2.34	0.42
1:A:414:GLU:HG2	1:A:437:VAL:O	2.20	0.42
2:B:41:GLU:HB2	2:B:58:SER:HA	2.01	0.42
1:C:1:MET:HA	1:C:5:GLN:HG3	2.01	0.42
2:D:1:MET:HG3	2:D:1:MET:O	2.20	0.42
2:D:122:VAL:CG2	2:D:299:PHE:CG	3.02	0.42
2:D:223:ILE:CD1	2:D:254:GLU:HG3	2.49	0.42
2:D:452:THR:HG22	2:D:452:THR:O	2.20	0.42
2:D:543:PHE:CD1	2:D:543:PHE:N	2.88	0.42
1:E:246:MET:HG2	1:E:351:PHE:O	2.19	0.42
1:E:336:LEU:HB3	1:E:446:MET:CE	2.49	0.42
1:E:383:THR:HG22	2:F:316:LYS:O	2.19	0.42
2:F:157:VAL:HG22	2:F:263:ALA:HB2	2.01	0.42
2:F:211:LEU:CG	2:F:212:HIS:N	2.81	0.42
2:F:485:SER:C	2:F:486:ASN:HD22	2.23	0.42
2:H:200:ILE:HD12	2:H:200:ILE:O	2.19	0.42
1:I:267:GLN:HB2	1:I:267:GLN:HE21	1.60	0.42
1:I:281:ASP:OD2	2:J:483:LYS:CD	2.68	0.42
2:J:274:PHE:C	2:J:276:GLU:N	2.73	0.42
2:L:340:VAL:HG11	2:L:344:GLY:HA2	2.00	0.42
2:L:521:LEU:HD13	2:L:521:LEU:HA	1.90	0.42
1:M:359:ASN:HD21	2:N:443:LYS:HG3	1.84	0.42
1:M:371:HIS:HB2	1:M:461:LEU:CB	2.50	0.42
2:N:72:TYR:C	2:N:74:LEU:H	2.23	0.42
2:N:411:GLU:HA	2:N:475:PHE:O	2.18	0.42
2:P:1:MET:HG3	2:P:1:MET:O	2.20	0.42
1:A:422:TYR:HE2	1:A:427:LYS:O	2.02	0.42
1:A:499:PRO:HG2	2:D:589:LEU:OXT	2.20	0.42
2:B:401:ARG:HG2	2:B:477:ILE:HD12	2.01	0.42
2:B:535:ILE:HG22	2:B:549:ALA:HB1	2.02	0.42
2:D:72:TYR:C	2:D:74:LEU:H	2.23	0.42
2:D:308:MET:HE3	2:D:309:VAL:C	2.40	0.42
2:D:391:PHE:CD2	2:D:392:PRO:HD2	2.49	0.42
2:F:146:LEU:HD11	2:F:159:ILE:HD13	2.00	0.42
2:F:147:HIS:ND1	2:F:154:ARG:HG2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:382:LEU:HA	1:G:386:HIS:ND1	2.35	0.42
2:H:1:MET:HG3	2:H:1:MET:O	2.19	0.42
2:J:132:THR:O	2:J:133:LYS:C	2.57	0.42
2:J:429:VAL:HG12	2:J:430:ASP:N	2.34	0.42
2:J:439:ILE:N	2:J:439:ILE:HD12	2.33	0.42
1:K:316:LEU:O	1:K:320:ARG:HG2	2.19	0.42
2:L:331:LEU:HD21	2:L:368:ALA:HB2	2.02	0.42
1:M:260:ASP:O	1:M:296:VAL:HG11	2.19	0.42
1:M:265:PRO:CA	1:M:300:HIS:HE1	2.26	0.42
2:N:82:ARG:HD2	2:N:94:PRO:HG3	2.01	0.42
2:N:112:GLU:C	2:N:114:THR:H	2.22	0.42
1:O:396:THR:C	1:O:398:LEU:H	2.23	0.42
2:P:6:VAL:HB	2:P:77:LEU:HD12	2.02	0.42
1:A:465:THR:C	1:A:467:ILE:H	2.23	0.42
2:B:229:VAL:HG12	2:B:230:VAL:N	2.34	0.42
2:B:420:GLN:HG2	2:B:449:VAL:HG23	2.01	0.42
2:B:480:ILE:C	2:B:480:ILE:HD12	2.39	0.42
1:C:492:LEU:HA	1:C:494:ARG:HE	1.84	0.42
1:E:271:ARG:O	1:E:272:ASP:OD1	2.37	0.42
1:E:384:LEU:HD11	1:E:417:MET:CE	2.50	0.42
2:F:129:ILE:HD12	2:F:251:ILE:HD12	2.00	0.42
1:G:205:ARG:O	1:G:206:PRO:O	2.37	0.42
2:H:261:THR:HA	2:H:264:LYS:HE2	2.02	0.42
2:H:271:VAL:HG21	2:H:284:VAL:CG1	2.49	0.42
2:H:524:VAL:HG13	2:H:532:GLY:HA2	2.01	0.42
1:I:207:PHE:O	1:I:209:PRO:HD3	2.20	0.42
1:I:463:ARG:N	1:I:464:PRO:HD2	2.34	0.42
1:I:476:GLU:O	1:I:482:VAL:HA	2.19	0.42
2:J:249:ARG:HG2	2:J:249:ARG:HH11	1.85	0.42
2:J:468:MET:HA	2:J:469:PRO:HD3	1.88	0.42
1:K:308:GLN:O	1:K:309:GLY:O	2.37	0.42
2:L:121:ALA:CB	2:L:256:THR:HA	2.49	0.42
2:L:360:HIS:CG	2:L:361:ALA:N	2.87	0.42
2:N:486:ASN:HD22	2:N:486:ASN:N	2.17	0.42
1:O:406:LYS:HB3	1:O:420:PHE:HE2	1.85	0.42
2:P:280:ASN:O	2:P:283:THR:HG22	2.19	0.42
1:A:277:PHE:CD2	1:A:324:LEU:HD12	2.54	0.42
1:A:328:THR:H	1:A:372:GLN:NE2	2.18	0.42
2:B:49:GLN:HE21	2:B:52:VAL:HG21	1.84	0.42
2:B:411:GLU:HA	2:B:475:PHE:O	2.19	0.42
1:C:34:HIS:HA	1:C:37:VAL:HG12	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:119:ALA:C	1:C:121:ASP:N	2.73	0.42
1:E:211:ASN:ND2	1:E:214:ALA:HB2	2.34	0.42
1:E:396:THR:C	1:E:398:LEU:H	2.21	0.42
2:F:112:GLU:C	2:F:114:THR:N	2.73	0.42
2:F:129:ILE:HD12	2:F:251:ILE:CD1	2.50	0.42
1:G:258:ASN:HA	1:G:330:SER:HB3	2.00	0.42
1:G:316:LEU:HD21	1:G:320:ARG:HD3	2.01	0.42
1:G:425:GLY:C	1:G:427:LYS:N	2.73	0.42
1:G:480:HIS:HA	2:H:461:THR:OG1	2.18	0.42
2:J:211:LEU:CG	2:J:212:HIS:N	2.81	0.42
2:L:1:MET:HG3	2:L:1:MET:O	2.20	0.42
2:L:280:ASN:O	2:L:283:THR:HG22	2.20	0.42
2:L:322:GLU:HB2	2:L:327:LEU:HD13	2.00	0.42
1:M:316:LEU:HD23	1:M:320:ARG:HG2	2.00	0.42
1:M:419:VAL:O	1:M:432:VAL:HG22	2.20	0.42
1:M:444:LEU:N	1:M:445:PRO:HD2	2.33	0.42
2:N:150:ILE:HD12	2:N:150:ILE:O	2.20	0.42
1:O:288:LEU:N	1:O:288:LEU:HD13	2.35	0.42
2:P:122:VAL:HG22	2:P:123:ALA:N	2.33	0.42
2:P:416:ALA:HA	2:P:451:ARG:HG3	2.01	0.42
1:A:424:GLN:OE1	1:A:424:GLN:N	2.52	0.42
2:B:17:ARG:HE	2:B:17:ARG:HB3	1.65	0.42
2:B:121:ALA:CB	2:B:256:THR:HA	2.49	0.42
2:B:139:PHE:CZ	2:B:161:THR:HG21	2.55	0.42
2:B:274:PHE:C	2:B:276:GLU:N	2.72	0.42
1:C:41:VAL:O	1:C:45:GLN:HG3	2.20	0.42
1:C:84:ILE:HA	1:C:85:PRO:HD2	1.95	0.42
1:C:140:LEU:C	1:C:142:LEU:N	2.71	0.42
1:C:470:GLY:O	1:C:471:ILE:CG1	2.67	0.42
1:E:370:PHE:HD2	1:E:370:PHE:H	1.67	0.42
2:F:322:GLU:HB2	2:F:327:LEU:CD1	2.50	0.42
2:F:475:PHE:HA	2:F:498:CYS:O	2.19	0.42
1:G:194:PRO:O	1:G:195:GLU:HB2	2.20	0.42
2:H:27:LEU:HD11	2:H:84:LEU:HD22	2.02	0.42
2:J:391:PHE:CD2	2:J:391:PHE:C	2.93	0.42
2:J:515:LEU:HD11	2:J:551:ILE:CG2	2.49	0.42
1:K:208:LYS:HA	1:K:209:PRO:HD3	1.92	0.42
1:K:262:LEU:CD2	1:K:329:THR:HG22	2.49	0.42
1:K:403:LEU:CD2	1:K:419:VAL:HG12	2.45	0.42
1:K:444:LEU:N	1:K:445:PRO:HD2	2.35	0.42
2:L:112:GLU:C	2:L:114:THR:H	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:132:THR:HB	2:L:135:ARG:HG3	2.01	0.42
2:L:261:THR:HA	2:L:264:LYS:HE2	2.01	0.42
2:L:453:THR:HG23	2:L:456:PRO:CD	2.50	0.42
2:N:281:GLN:HG2	2:N:282:PHE:CD1	2.55	0.42
2:N:471:PRO:HA	2:N:502:TYR:O	2.20	0.42
1:O:222:GLY:O	1:O:223:HIS:CG	2.73	0.42
1:O:464:PRO:HG2	1:O:465:THR:N	2.35	0.42
2:P:12:PHE:HB3	2:P:17:ARG:O	2.20	0.42
2:P:20:THR:HB	2:P:23:GLU:HG3	2.02	0.42
2:P:268:ASP:O	2:P:272:THR:CG2	2.68	0.42
2:P:434:THR:O	2:P:435:LYS:HB2	2.20	0.42
2:P:449:VAL:CG1	2:P:450:ALA:N	2.83	0.42
1:A:258:ASN:ND2	1:A:327:HIS:CE1	2.88	0.42
2:B:115:ALA:O	2:B:116:LYS:CB	2.68	0.42
1:C:163:LYS:O	1:C:163:LYS:HG2	2.19	0.42
1:C:246:MET:HG3	1:C:352:SER:HB3	2.01	0.42
1:E:246:MET:HG3	1:E:352:SER:HB3	2.01	0.42
1:E:360:GLU:CG	1:E:361:THR:H	2.28	0.42
2:F:147:HIS:O	2:F:151:CYS:HB2	2.20	0.42
1:G:396:THR:C	1:G:398:LEU:H	2.22	0.42
2:H:15:LEU:CD1	2:H:19:TYR:HE2	2.33	0.42
2:H:41:GLU:HB3	2:H:58:SER:O	2.20	0.42
2:H:434:THR:O	2:H:435:LYS:HB2	2.19	0.42
2:H:511:ILE:HG21	2:H:580:SER:O	2.20	0.42
1:I:212:PHE:CE1	2:L:537:ALA:HA	2.54	0.42
2:J:183:PHE:O	2:J:191:GLU:HA	2.19	0.42
2:J:349:ILE:HD13	2:J:364:ILE:HG21	2.02	0.42
1:K:218:LEU:HA	1:K:219:PRO:HD2	1.86	0.42
1:K:343:LYS:HB2	1:K:344:PRO:HD2	1.95	0.42
1:K:471:ILE:HD12	1:K:471:ILE:N	2.29	0.42
2:L:322:GLU:HB2	2:L:327:LEU:CD1	2.50	0.42
2:L:553:ALA:O	2:L:554:ARG:C	2.58	0.42
1:M:479:GLY:HA3	2:N:415:PHE:HE1	1.77	0.42
2:N:233:MET:HE2	2:N:233:MET:HB3	1.86	0.42
2:N:495:ARG:HG3	2:N:495:ARG:NH1	2.35	0.42
2:N:519:MET:HG3	2:N:533:TYR:CZ	2.54	0.42
1:O:225:HIS:HA	1:O:226:PRO:HD3	1.85	0.42
1:O:281:ASP:CB	2:P:438:HIS:H	2.33	0.42
1:O:329:THR:HG1	3:O:509:PHE:N	2.18	0.42
1:O:363:ASP:HB3	1:O:364:ALA:H	1.64	0.42
2:P:322:GLU:HB2	2:P:327:LEU:HD13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:85:GLN:HB3	2:B:91:ILE:CG2	2.48	0.42
2:B:112:GLU:C	2:B:114:THR:H	2.21	0.42
2:B:120:PHE:HB3	2:B:291:PHE:HE2	1.85	0.42
2:B:146:LEU:HD11	2:B:159:ILE:HD13	2.01	0.42
2:B:219:LEU:C	2:B:220:TYR:HD1	2.22	0.42
2:B:350:GLU:O	2:B:352:PRO:HD3	2.19	0.42
2:B:419:SER:O	2:B:422:ASP:HB2	2.20	0.42
1:C:233:GLN:NE2	1:C:497:ALA:HB3	2.35	0.42
1:C:474:ILE:CG1	1:C:477:LEU:HD11	2.50	0.42
2:D:126:LEU:HB2	2:D:278:CYS:SG	2.59	0.42
2:D:133:LYS:H	2:D:133:LYS:CD	2.13	0.42
2:D:217:LYS:HB3	2:D:218:PRO:CD	2.41	0.42
2:D:233:MET:HA	2:D:234:PRO:HD2	1.81	0.42
2:D:482:ILE:HG22	2:D:483:LYS:N	2.35	0.42
1:E:298:ARG:HG3	1:E:298:ARG:HH11	1.85	0.42
1:E:365:THR:O	1:E:366:HIS:HB2	2.19	0.42
2:F:70:ASN:HB3	2:F:71:ARG:HD2	2.02	0.42
2:F:115:ALA:O	2:F:116:LYS:CB	2.68	0.42
2:F:132:THR:HB	2:F:135:ARG:CG	2.50	0.42
2:F:449:VAL:CG1	2:F:450:ALA:N	2.83	0.42
2:F:554:ARG:NH1	2:F:554:ARG:CG	2.83	0.42
1:G:305:TYR:HB3	1:G:444:LEU:CD1	2.50	0.42
1:G:349:LYS:HG2	1:G:377:VAL:HG22	2.01	0.42
1:G:398:LEU:HD12	1:G:495:LEU:CD2	2.49	0.42
2:H:50:GLY:O	2:H:51:ASN:CG	2.58	0.42
2:H:71:ARG:CG	2:H:355:ARG:HH12	2.30	0.42
2:H:122:VAL:HG22	2:H:267:LEU:HD12	2.02	0.42
2:H:424:ALA:HB1	2:H:429:VAL:O	2.20	0.42
2:H:495:ARG:HH11	2:H:495:ARG:HG3	1.85	0.42
2:J:70:ASN:HB3	2:J:71:ARG:HD2	2.02	0.42
2:J:82:ARG:NH1	2:J:276:GLU:OE1	2.53	0.42
1:K:280:ARG:HG2	1:K:281:ASP:N	2.35	0.42
1:K:425:GLY:C	1:K:426:LEU:HD23	2.40	0.42
2:L:451:ARG:NH2	2:L:478:SER:HB3	2.35	0.42
1:M:279:LEU:HB2	1:M:322:ASN:CB	2.50	0.42
2:N:167:LEU:CD2	2:N:231:LEU:HD13	2.49	0.42
2:P:27:LEU:O	2:P:27:LEU:HD13	2.20	0.42
2:P:68:PRO:O	2:P:70:ASN:N	2.53	0.42
2:P:143:GLN:HG3	2:P:159:ILE:HD12	2.01	0.42
2:P:147:HIS:O	2:P:151:CYS:HB2	2.20	0.42
2:B:68:PRO:C	2:B:70:ASN:N	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:213:ILE:O	2:B:213:ILE:CG2	2.68	0.42
2:B:526:PRO:HA	2:B:533:TYR:CE2	2.55	0.42
1:C:14:LEU:HD21	1:C:175:VAL:O	2.20	0.42
1:C:81:PHE:CG	1:C:132:MET:HE2	2.55	0.42
1:C:355:ARG:HA	1:C:371:HIS:HA	2.02	0.42
1:C:361:THR:OG1	2:D:443:LYS:HE3	2.19	0.42
1:C:476:GLU:HG3	1:C:476:GLU:O	2.18	0.42
2:D:40:SER:CB	2:D:60:VAL:H	2.32	0.42
2:D:142:LEU:HD23	2:D:146:LEU:HG	2.02	0.42
2:D:589:LEU:HD23	2:D:589:LEU:HA	1.84	0.42
1:E:466:MET:HB2	1:E:467:ILE:CD1	2.46	0.42
2:F:9:ASP:OD2	2:F:9:ASP:N	2.52	0.42
2:F:271:VAL:HG21	2:F:284:VAL:CG1	2.50	0.42
2:F:350:GLU:O	2:F:352:PRO:HD3	2.20	0.42
2:F:451:ARG:NH2	2:F:478:SER:HB3	2.34	0.42
1:G:225:HIS:HA	1:G:226:PRO:HD3	1.85	0.42
2:H:126:LEU:N	2:H:126:LEU:CD2	2.83	0.42
2:H:132:THR:CG2	2:H:133:LYS:N	2.83	0.42
2:H:139:PHE:CZ	2:H:161:THR:HG21	2.55	0.42
2:H:223:ILE:CD1	2:H:254:GLU:HG3	2.49	0.42
2:H:561:LEU:HD23	2:H:562:GLY:N	2.35	0.42
1:I:235:ARG:NH1	1:I:245:GLU:OE1	2.53	0.42
1:I:296:VAL:O	1:I:297:LYS:C	2.58	0.42
2:J:188:LYS:HE2	2:J:201:TYR:CE2	2.55	0.42
2:J:465:ASN:HB3	2:J:468:MET:HG2	2.02	0.42
2:L:126:LEU:CD2	2:L:251:ILE:HB	2.50	0.42
2:L:471:PRO:HA	2:L:502:TYR:O	2.20	0.42
1:M:285:ALA:O	2:N:488:ASP:O	2.38	0.42
2:N:67:VAL:HG11	2:N:74:LEU:HB2	2.02	0.42
2:N:280:ASN:O	2:N:283:THR:HG22	2.20	0.42
1:O:398:LEU:HD12	1:O:398:LEU:HA	1.88	0.42
2:P:335:TYR:O	2:P:352:PRO:HG2	2.20	0.42
1:A:305:TYR:HB3	1:A:444:LEU:HD12	2.01	0.41
2:B:27:LEU:HD11	2:B:84:LEU:HD22	2.02	0.41
2:B:139:PHE:HA	2:B:274:PHE:CZ	2.55	0.41
2:B:446:GLU:O	2:B:447:PHE:CD2	2.72	0.41
2:B:498:CYS:HB2	2:B:582:GLU:HG3	2.02	0.41
1:C:138:ARG:HG2	1:C:138:ARG:O	2.20	0.41
1:C:235:ARG:NH1	1:C:245:GLU:OE1	2.52	0.41
1:C:237:ILE:HD12	1:C:397:LYS:CB	2.50	0.41
1:C:316:LEU:O	1:C:320:ARG:HG2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:274:PHE:C	2:D:276:GLU:H	2.22	0.41
1:E:246:MET:HE1	1:E:332:SER:N	2.35	0.41
1:E:380:HIS:CD2	1:E:452:VAL:HG22	2.55	0.41
2:F:20:THR:H	2:F:23:GLU:HB2	1.85	0.41
2:F:27:LEU:HD11	2:F:84:LEU:HD22	2.01	0.41
2:F:181:ILE:CD1	2:F:194:ALA:HB2	2.49	0.41
2:F:183:PHE:O	2:F:191:GLU:HA	2.20	0.41
2:F:450:ALA:O	2:F:451:ARG:O	2.38	0.41
1:G:279:LEU:H	1:G:279:LEU:HD12	1.85	0.41
1:G:301:SER:CB	1:G:312:TYR:O	2.68	0.41
1:G:365:THR:HG22	1:G:367:LEU:CD2	2.50	0.41
2:J:53:LYS:HB2	2:J:54:ALA:H	1.63	0.41
2:J:68:PRO:C	2:J:70:ASN:N	2.70	0.41
2:J:112:GLU:C	2:J:114:THR:H	2.24	0.41
2:J:131:PHE:HE2	2:J:136:TYR:HA	1.82	0.41
2:J:213:ILE:O	2:J:213:ILE:CG2	2.67	0.41
2:J:309:VAL:HG23	2:J:349:ILE:HD12	2.01	0.41
1:K:196:MET:O	1:K:202:TRP:CD1	2.59	0.41
2:L:40:SER:O	2:L:41:GLU:HG2	2.19	0.41
2:L:45:ILE:HG23	2:L:48:GLU:CD	2.39	0.41
1:M:193:SER:CB	1:M:194:PRO:HD2	2.47	0.41
1:M:196:MET:HE3	1:M:202:TRP:HB3	2.01	0.41
1:M:323:LEU:C	1:M:323:LEU:HD12	2.41	0.41
1:M:373:ILE:HG12	1:M:459:LEU:CD1	2.50	0.41
2:N:274:PHE:C	2:N:276:GLU:N	2.74	0.41
2:N:429:VAL:HG12	2:N:430:ASP:N	2.35	0.41
2:N:550:GLU:HB3	2:N:552:PHE:HE1	1.85	0.41
2:N:576:MET:H	2:N:576:MET:HE2	1.85	0.41
1:O:226:PRO:HB3	1:O:469:TYR:CE1	2.54	0.41
1:O:228:LEU:HD12	2:P:411:GLU:OE2	2.19	0.41
2:P:47:LYS:HG2	2:P:47:LYS:O	2.20	0.41
2:P:183:PHE:HD2	2:P:184:LYS:H	1.68	0.41
2:B:6:VAL:CG2	2:B:11:LEU:HD12	2.50	0.41
2:B:271:VAL:HG21	2:B:284:VAL:CG1	2.49	0.41
2:B:437:VAL:O	2:B:449:VAL:HG13	2.19	0.41
2:B:589:LEU:HD23	1:C:495:LEU:CD1	2.49	0.41
1:C:493:CYS:C	1:C:497:ALA:HB2	2.41	0.41
2:D:91:ILE:HG12	2:D:92:LYS:O	2.19	0.41
2:D:503:ASN:ND2	2:D:504:LYS:N	2.65	0.41
1:E:236:GLN:O	1:E:240:GLU:HG3	2.20	0.41
1:E:258:ASN:C	1:E:259:PHE:CD2	2.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:120:PHE:HB3	2:F:291:PHE:HE2	1.85	0.41
2:F:121:ALA:CB	2:F:256:THR:HA	2.50	0.41
2:F:186:LEU:HD23	2:F:237:ILE:CG2	2.48	0.41
2:F:355:ARG:HD3	2:F:357:ASP:OD1	2.20	0.41
2:F:482:ILE:HG22	2:F:483:LYS:N	2.35	0.41
2:F:575:THR:HB	2:F:576:MET:CE	2.51	0.41
1:G:468:LYS:HB2	1:G:468:LYS:NZ	2.35	0.41
2:J:15:LEU:HD13	2:J:19:TYR:HE2	1.85	0.41
2:J:91:ILE:HG12	2:J:92:LYS:O	2.20	0.41
2:J:122:VAL:HG22	2:J:123:ALA:N	2.35	0.41
2:J:245:THR:CG2	2:J:246:VAL:H	2.33	0.41
1:K:382:LEU:HA	1:K:386:HIS:ND1	2.35	0.41
2:L:551:ILE:CD1	2:L:561:LEU:HB2	2.40	0.41
1:M:266:GLN:NE2	1:M:315:LYS:O	2.49	0.41
1:M:279:LEU:CD2	1:M:281:ASP:HB2	2.50	0.41
1:M:281:ASP:CB	1:M:282:PRO:CD	2.82	0.41
1:M:366:HIS:HD2	1:M:474:ILE:HD12	1.84	0.41
1:M:414:GLU:CD	2:N:362:CYS:SG	2.98	0.41
1:M:491:PRO:HB2	1:M:492:LEU:H	1.62	0.41
2:N:82:ARG:HG2	2:N:335:TYR:HH	1.81	0.41
1:O:218:LEU:O	1:O:220:ASP:N	2.53	0.41
1:O:316:LEU:O	1:O:320:ARG:HG2	2.20	0.41
2:P:340:VAL:HG11	2:P:344:GLY:HA2	2.01	0.41
2:P:486:ASN:HD22	2:P:486:ASN:N	2.17	0.41
1:A:336:LEU:HB3	1:A:446:MET:CE	2.50	0.41
1:A:443:LEU:CD1	1:A:454:VAL:HG13	2.50	0.41
2:B:3:THR:HG21	2:B:64:LYS:HG3	2.01	0.41
2:B:171:PHE:CD1	2:B:171:PHE:N	2.88	0.41
2:B:181:ILE:HG13	2:B:194:ALA:HB2	2.01	0.41
2:B:505:ASN:HB2	1:C:191:GLU:OE1	2.20	0.41
1:C:190:THR:HG22	1:C:191:GLU:HG3	2.02	0.41
1:C:414:GLU:HG2	1:C:437:VAL:O	2.20	0.41
2:D:121:ALA:CB	2:D:256:THR:HA	2.50	0.41
2:F:139:PHE:CZ	2:F:161:THR:HG21	2.55	0.41
1:G:414:GLU:HG2	1:G:437:VAL:O	2.20	0.41
1:G:420:PHE:HE1	2:H:29:PHE:HE1	1.68	0.41
2:H:72:TYR:C	2:H:74:LEU:H	2.23	0.41
2:H:475:PHE:HA	2:H:498:CYS:O	2.20	0.41
2:H:558:VAL:CG1	2:H:583:ILE:HB	2.49	0.41
1:I:287:GLN:HB3	2:J:488:ASP:HA	2.02	0.41
1:I:395:PHE:CE2	1:I:432:VAL:CG1	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:467:ILE:C	1:I:469:TYR:H	2.22	0.41
2:J:569:ILE:O	2:J:574:LEU:HB2	2.19	0.41
2:L:9:ASP:N	2:L:9:ASP:OD2	2.52	0.41
2:L:12:PHE:HB3	2:L:17:ARG:O	2.20	0.41
2:L:147:HIS:HE1	2:L:158:ALA:HA	1.85	0.41
2:L:183:PHE:HD2	2:L:184:LYS:H	1.68	0.41
2:L:223:ILE:CD1	2:L:254:GLU:HG3	2.50	0.41
2:L:512:HIS:HA	2:L:561:LEU:HD11	2.02	0.41
2:N:120:PHE:HE1	2:N:258:THR:C	2.24	0.41
2:N:360:HIS:CD2	2:N:362:CYS:HB2	2.52	0.41
1:O:192:LEU:HD23	1:O:202:TRP:HE3	1.85	0.41
1:A:439:ARG:HE	1:A:441:GLU:CD	2.24	0.41
2:B:472:LEU:HB2	2:B:502:TYR:HB3	2.01	0.41
1:C:470:GLY:O	1:C:471:ILE:HG13	2.19	0.41
2:D:147:HIS:O	2:D:151:CYS:HB2	2.21	0.41
2:D:362:CYS:HA	2:D:365:VAL:HG23	2.02	0.41
2:D:424:ALA:HB1	2:D:429:VAL:O	2.20	0.41
2:D:480:ILE:C	2:D:480:ILE:HD12	2.40	0.41
1:E:234:PHE:CD2	1:E:373:ILE:HD13	2.55	0.41
2:F:85:GLN:OE1	2:F:85:GLN:HA	2.21	0.41
1:G:192:LEU:O	1:G:193:SER:HB3	2.20	0.41
1:G:364:ALA:O	1:G:365:THR:CB	2.69	0.41
2:H:495:ARG:HG3	2:H:495:ARG:NH1	2.35	0.41
1:I:225:HIS:CD2	2:J:413:LEU:HB2	2.55	0.41
2:J:15:LEU:HA	2:J:85:GLN:NE2	2.33	0.41
2:J:183:PHE:CD2	2:J:230:VAL:HG11	2.54	0.41
2:J:520:GLN:NE2	1:K:489:ASP:OD1	2.54	0.41
1:K:6:VAL:O	1:K:7:ALA:C	2.58	0.41
1:K:480:HIS:H	1:K:480:HIS:HD2	1.58	0.41
2:L:98:ARG:NH1	2:L:98:ARG:HG2	2.36	0.41
1:M:200:GLY:O	1:M:202:TRP:N	2.54	0.41
1:M:258:ASN:HD22	1:M:330:SER:HB3	1.85	0.41
1:M:336:LEU:HB3	1:M:446:MET:CE	2.50	0.41
2:N:424:ALA:HB1	2:N:429:VAL:O	2.20	0.41
2:N:515:LEU:HD11	2:N:551:ILE:HD12	2.00	0.41
2:N:584:ASN:O	2:N:587:PRO:HD2	2.20	0.41
1:O:275:ASP:HB2	1:O:360:GLU:OE1	2.20	0.41
1:O:276:THR:HG22	1:O:277:PHE:N	2.36	0.41
1:O:365:THR:HG21	1:O:474:ILE:CD1	2.46	0.41
2:P:17:ARG:HE	2:P:17:ARG:HB3	1.70	0.41
2:P:146:LEU:HD11	2:P:159:ILE:HD13	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:163:ASP:CG	2:P:248:THR:HG23	2.40	0.41
2:P:234:PRO:CB	2:P:235:PRO:CD	2.96	0.41
2:P:360:HIS:CG	2:P:361:ALA:N	2.87	0.41
1:A:474:ILE:HG23	1:A:475:ARG:N	2.36	0.41
2:B:322:GLU:HB2	2:B:327:LEU:HD13	2.03	0.41
2:B:380:THR:HG21	2:F:321:ARG:HH21	1.85	0.41
2:B:501:TYR:CE1	2:B:503:ASN:HB2	2.55	0.41
1:C:460:SER:O	1:C:464:PRO:CD	2.68	0.41
2:D:120:PHE:HB3	2:D:291:PHE:HE2	1.85	0.41
2:D:198:MET:SD	2:D:220:TYR:HE2	2.43	0.41
2:D:280:ASN:O	2:D:283:THR:HG22	2.20	0.41
2:D:430:ASP:C	2:D:432:SER:H	2.23	0.41
2:D:495:ARG:HH11	2:D:495:ARG:HG3	1.85	0.41
1:E:287:GLN:O	2:F:488:ASP:HB2	2.20	0.41
1:E:336:LEU:HB3	1:E:446:MET:HE1	2.02	0.41
2:F:124:ALA:CB	2:F:300:PRO:HD3	2.50	0.41
2:F:197:LEU:HA	2:F:200:ILE:CG1	2.51	0.41
1:G:366:HIS:O	1:G:475:ARG:NH1	2.53	0.41
1:G:414:GLU:HG3	1:G:415:PRO:CD	2.51	0.41
1:G:437:VAL:HG13	1:G:455:ILE:HG22	2.02	0.41
2:H:85:GLN:HB3	2:H:91:ILE:CG2	2.50	0.41
2:H:480:ILE:HG21	2:H:496:HIS:HD2	1.84	0.41
1:I:208:LYS:O	1:I:209:PRO:O	2.39	0.41
1:I:228:LEU:HD12	2:J:411:GLU:CD	2.41	0.41
1:I:316:LEU:CD2	1:I:320:ARG:HD3	2.51	0.41
2:J:357:ASP:OD1	2:J:358:ILE:HD12	2.20	0.41
2:J:455:LEU:HD13	2:J:459:LEU:HD22	2.02	0.41
1:K:279:LEU:CD2	1:K:323:LEU:CA	2.98	0.41
2:L:197:LEU:HA	2:L:200:ILE:CG1	2.50	0.41
2:L:305:ARG:HB2	2:L:351:ILE:HB	2.02	0.41
2:N:98:ARG:HG2	2:N:98:ARG:NH1	2.35	0.41
2:N:145:LYS:O	2:N:148:GLN:NE2	2.53	0.41
2:P:121:ALA:CB	2:P:256:THR:HA	2.50	0.41
2:B:72:TYR:C	2:B:74:LEU:H	2.24	0.41
2:B:101:PRO:CG	2:B:105:ILE:HD13	2.48	0.41
2:B:204:ASP:O	2:B:208:LYS:HB2	2.21	0.41
2:B:475:PHE:HA	2:B:498:CYS:O	2.21	0.41
2:B:534:VAL:CG2	2:B:552:PHE:HB2	2.51	0.41
1:C:13:ARG:HG3	1:C:26:LEU:HD21	2.03	0.41
1:C:464:PRO:HG2	1:C:465:THR:N	2.36	0.41
2:D:426:LYS:HA	2:D:571:LYS:CE	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:384:LEU:HD11	1:E:417:MET:HE2	2.02	0.41
2:F:62:LEU:N	2:F:62:LEU:CD2	2.84	0.41
2:F:570:THR:HG23	1:G:197:ILE:HG21	2.02	0.41
1:G:328:THR:OG1	1:G:372:GLN:NE2	2.54	0.41
1:G:437:VAL:O	1:G:438:PHE:O	2.38	0.41
2:H:20:THR:H	2:H:23:GLU:HB2	1.86	0.41
2:H:274:PHE:C	2:H:276:GLU:H	2.23	0.41
2:H:459:LEU:HD23	2:H:572:PHE:CD1	2.56	0.41
2:H:468:MET:HA	2:H:469:PRO:HD3	1.91	0.41
1:I:212:PHE:O	1:I:213:LEU:C	2.59	0.41
1:I:241:MET:HG2	2:L:387:ILE:HD12	2.02	0.41
2:J:475:PHE:HA	2:J:498:CYS:O	2.19	0.41
2:J:589:LEU:HD23	2:J:589:LEU:HA	1.87	0.41
1:K:267:GLN:NE2	2:L:262:LYS:HE2	2.35	0.41
1:K:437:VAL:O	1:K:438:PHE:O	2.38	0.41
2:L:133:LYS:H	2:L:133:LYS:CD	2.16	0.41
2:L:190:LYS:HB3	2:L:191:GLU:H	1.49	0.41
2:L:223:ILE:HD13	2:L:254:GLU:HG3	2.01	0.41
2:L:349:ILE:HD13	2:L:364:ILE:HG21	2.01	0.41
1:M:215:HIS:O	1:M:215:HIS:ND1	2.51	0.41
1:M:248:THR:O	1:M:248:THR:HG22	2.20	0.41
1:M:277:PHE:N	1:M:277:PHE:HD1	2.18	0.41
2:N:120:PHE:HE1	2:N:258:THR:O	2.03	0.41
2:N:126:LEU:CD2	2:N:251:ILE:HB	2.51	0.41
2:N:157:VAL:HG11	2:N:266:VAL:HG21	2.03	0.41
2:N:186:LEU:HD22	2:N:186:LEU:H	1.84	0.41
2:N:450:ALA:O	2:N:451:ARG:O	2.38	0.41
2:N:509:GLU:HG3	1:O:210:TYR:HE1	1.86	0.41
2:N:553:ALA:O	2:N:554:ARG:C	2.58	0.41
2:N:589:LEU:HD23	2:N:589:LEU:HA	1.91	0.41
2:P:147:HIS:HE1	2:P:159:ILE:H	1.68	0.41
2:P:308:MET:HE3	2:P:309:VAL:CA	2.50	0.41
2:P:506:PRO:HD3	2:P:577:PRO:HG3	2.02	0.41
2:P:555:GLY:O	2:P:556:GLN:HB3	2.21	0.41
2:B:9:ASP:OD2	2:B:9:ASP:N	2.53	0.41
1:C:51:ILE:H	1:C:51:ILE:HG13	1.71	0.41
1:C:77:GLU:CG	1:C:106:LYS:HB3	2.50	0.41
1:C:492:LEU:O	1:C:496:ASP:HB2	2.19	0.41
2:D:143:GLN:HG3	2:D:159:ILE:CD1	2.50	0.41
2:D:495:ARG:HG3	2:D:495:ARG:NH1	2.36	0.41
2:D:535:ILE:H	2:D:535:ILE:CD1	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:280:ARG:HB3	2:F:440:SER:CB	2.42	0.41
1:E:422:TYR:N	1:E:429:TRP:CE3	2.89	0.41
1:E:426:LEU:HD23	1:E:427:LYS:H	1.85	0.41
2:F:204:ASP:O	2:F:208:LYS:HB2	2.21	0.41
2:H:126:LEU:HB2	2:H:278:CYS:SG	2.60	0.41
2:H:147:HIS:HE1	2:H:158:ALA:HA	1.84	0.41
2:J:120:PHE:HE1	2:J:258:THR:C	2.24	0.41
2:J:154:ARG:HD2	2:J:210:TYR:CD2	2.55	0.41
2:J:430:ASP:C	2:J:432:SER:H	2.24	0.41
2:J:495:ARG:HG3	2:J:495:ARG:HH11	1.85	0.41
2:L:15:LEU:CD1	2:L:19:TYR:HE2	2.33	0.41
2:L:213:ILE:O	2:L:213:ILE:CG2	2.68	0.41
2:L:458:LEU:HA	2:L:458:LEU:HD23	1.79	0.41
1:M:279:LEU:CD2	1:M:283:ALA:H	2.19	0.41
1:M:316:LEU:HD21	1:M:320:ARG:HD3	2.03	0.41
2:N:508:PHE:HE2	1:O:210:TYR:CD2	2.38	0.41
1:O:197:ILE:O	1:O:199:SER:N	2.46	0.41
1:O:227:LEU:HD23	1:O:465:THR:HG21	2.03	0.41
2:P:27:LEU:HD11	2:P:84:LEU:HD22	2.03	0.41
2:P:41:GLU:HA	2:P:44:ILE:HD12	2.02	0.41
2:P:72:TYR:C	2:P:74:LEU:H	2.24	0.41
2:P:132:THR:O	2:P:133:LYS:C	2.59	0.41
2:P:471:PRO:HA	2:P:502:TYR:O	2.20	0.41
2:B:147:HIS:C	2:B:149:ASN:H	2.23	0.41
2:B:186:LEU:HD22	2:B:186:LEU:H	1.86	0.41
1:C:119:ALA:O	1:C:120:ALA:C	2.59	0.41
1:C:162:ARG:O	1:C:164:LEU:HD23	2.21	0.41
1:C:211:ASN:ND2	1:C:213:LEU:HD23	2.35	0.41
2:F:207:LEU:N	2:F:207:LEU:HD12	2.36	0.41
2:F:322:GLU:HB2	2:F:327:LEU:HD13	2.03	0.41
2:F:451:ARG:HH22	2:F:478:SER:CB	2.32	0.41
2:H:360:HIS:CG	2:H:361:ALA:N	2.88	0.41
2:H:414:THR:HB	2:H:451:ARG:HH11	1.86	0.41
1:I:200:GLY:HA2	1:I:202:TRP:CZ3	2.56	0.41
1:I:246:MET:SD	1:I:350:TYR:HB3	2.60	0.41
1:I:380:HIS:CD2	1:I:452:VAL:HG22	2.56	0.41
2:J:217:LYS:HB3	2:J:218:PRO:CD	2.40	0.41
2:L:391:PHE:CD2	2:L:391:PHE:C	2.92	0.41
2:L:589:LEU:HD23	2:L:589:LEU:HA	1.91	0.41
1:M:237:ILE:HD12	1:M:397:LYS:CB	2.50	0.41
1:M:467:ILE:HD12	1:M:467:ILE:N	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:123:ALA:HB2	2:N:254:GLU:HA	2.03	0.41
2:N:217:LYS:HB3	2:N:218:PRO:CD	2.41	0.41
1:O:226:PRO:HG3	1:O:490:SER:CB	2.51	0.41
2:P:181:ILE:CD1	2:P:194:ALA:HB2	2.50	0.41
1:A:193:SER:HG	1:A:196:MET:HG3	1.86	0.41
1:A:197:ILE:HG21	2:D:569:ILE:HG12	2.03	0.41
1:A:264:GLN:HA	1:A:265:PRO:HD2	1.90	0.41
1:A:415:PRO:HD2	1:A:437:VAL:CG2	2.51	0.41
2:B:40:SER:HB3	2:B:58:SER:O	2.21	0.41
2:B:179:SER:HA	2:B:193:THR:CG2	2.51	0.41
2:B:434:THR:O	2:B:435:LYS:HB2	2.21	0.41
2:B:444:THR:HG21	2:B:446:GLU:HG3	2.03	0.41
1:C:188:GLN:HE21	1:C:188:GLN:CA	2.18	0.41
1:C:414:GLU:CD	2:D:362:CYS:SG	3.00	0.41
1:C:480:HIS:H	1:C:480:HIS:HD2	1.58	0.41
2:D:506:PRO:HD3	2:D:577:PRO:HG3	2.03	0.41
1:E:382:LEU:HA	1:E:386:HIS:ND1	2.35	0.41
2:F:44:ILE:C	2:F:46:SER:H	2.23	0.41
2:F:126:LEU:CD2	2:F:251:ILE:HB	2.51	0.41
2:F:147:HIS:C	2:F:149:ASN:H	2.25	0.41
2:F:308:MET:HE3	2:F:309:VAL:N	2.36	0.41
2:F:503:ASN:O	2:F:576:MET:HB3	2.21	0.41
2:F:521:LEU:HD13	2:F:521:LEU:HA	1.94	0.41
2:F:553:ALA:O	2:F:554:ARG:C	2.58	0.41
1:G:193:SER:CB	1:G:194:PRO:CD	2.81	0.41
1:G:246:MET:HG3	1:G:352:SER:HB3	2.03	0.41
1:G:464:PRO:O	1:G:468:LYS:N	2.46	0.41
1:G:475:ARG:HG3	1:G:475:ARG:NH1	2.34	0.41
2:H:24:PHE:HD2	2:H:35:LEU:HD12	1.85	0.41
2:H:27:LEU:CD1	2:H:84:LEU:HD22	2.51	0.41
2:H:68:PRO:O	2:H:70:ASN:N	2.53	0.41
2:H:211:LEU:HG	2:H:212:HIS:N	2.23	0.41
2:H:480:ILE:C	2:H:480:ILE:HD12	2.41	0.41
1:I:255:SER:HB2	1:I:321:LYS:O	2.19	0.41
1:I:325:ARG:CG	1:I:325:ARG:NH2	2.84	0.41
1:I:364:ALA:C	1:I:366:HIS:H	2.24	0.41
1:I:460:SER:O	1:I:464:PRO:HD2	2.21	0.41
2:J:146:LEU:HD11	2:J:159:ILE:HD13	2.02	0.41
2:J:161:THR:HG22	2:J:253:ILE:HG12	2.02	0.41
2:J:186:LEU:HD22	2:J:186:LEU:H	1.86	0.41
2:J:223:ILE:HB	2:J:231:LEU:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:269:ILE:O	2:J:272:THR:HG22	2.21	0.41
2:J:272:THR:HG23	2:J:273:MET:N	2.36	0.41
2:J:401:ARG:HG2	2:J:477:ILE:HD12	2.03	0.41
2:J:470:LEU:HB3	2:J:471:PRO:CD	2.47	0.41
1:K:279:LEU:HD23	1:K:322:ASN:O	2.20	0.41
1:K:287:GLN:HG3	1:K:288:LEU:N	2.29	0.41
1:K:473:ASN:OD1	1:K:475:ARG:HB2	2.21	0.41
2:L:274:PHE:C	2:L:276:GLU:H	2.23	0.41
2:L:430:ASP:C	2:L:432:SER:H	2.24	0.41
2:L:555:GLY:O	2:L:556:GLN:HB3	2.21	0.41
1:M:193:SER:O	1:M:196:MET:HB2	2.20	0.41
1:M:213:LEU:C	1:M:215:HIS:N	2.74	0.41
1:M:284:GLU:HG2	1:M:320:ARG:HH21	1.86	0.41
1:M:475:ARG:CG	1:M:475:ARG:NH1	2.84	0.41
2:N:20:THR:H	2:N:23:GLU:HB2	1.86	0.41
2:N:362:CYS:HA	2:N:365:VAL:HG23	2.02	0.41
2:N:391:PHE:CD2	2:N:391:PHE:C	2.94	0.41
2:N:480:ILE:HG12	2:N:496:HIS:NE2	2.35	0.41
1:O:325:ARG:HG2	1:O:325:ARG:NH2	2.33	0.41
2:P:41:GLU:HA	2:P:44:ILE:CD1	2.51	0.41
2:P:120:PHE:HB3	2:P:291:PHE:HE2	1.86	0.41
2:P:179:SER:HA	2:P:193:THR:CG2	2.50	0.41
2:P:232:SER:HB3	2:P:238:ASN:HA	2.01	0.41
2:P:362:CYS:HA	2:P:365:VAL:HG23	2.03	0.41
2:P:391:PHE:CD2	2:P:391:PHE:C	2.92	0.41
2:P:507:GLY:CA	2:P:510:ILE:HG22	2.51	0.41
2:P:519:MET:HE2	2:P:519:MET:HA	2.01	0.41
2:P:550:GLU:HB3	2:P:552:PHE:HE1	1.86	0.41
2:P:553:ALA:O	2:P:554:ARG:C	2.58	0.41
1:A:248:THR:HG21	1:A:354:ASP:CB	2.51	0.41
2:B:186:LEU:HD21	2:B:238:ASN:N	2.28	0.41
2:B:233:MET:HE2	2:B:233:MET:HB3	1.91	0.41
2:B:305:ARG:HB2	2:B:351:ILE:HB	2.02	0.41
1:C:325:ARG:CG	1:C:325:ARG:NH2	2.84	0.41
1:C:406:LYS:HB3	1:C:420:PHE:HE1	1.86	0.41
1:C:469:TYR:OH	1:C:493:CYS:HB2	2.18	0.41
1:C:474:ILE:HD12	1:C:474:ILE:HA	1.84	0.41
2:D:112:GLU:C	2:D:114:THR:H	2.24	0.41
1:E:260:ASP:OD2	1:E:314:TRP:NE1	2.53	0.41
2:F:53:LYS:C	2:F:55:ALA:N	2.73	0.41
2:F:72:TYR:C	2:F:74:LEU:H	2.25	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:309:VAL:CG2	2:F:349:ILE:HD12	2.51	0.41
2:F:424:ALA:HB1	2:F:429:VAL:O	2.21	0.41
2:F:493:ASN:HD22	2:F:493:ASN:N	2.19	0.41
2:F:555:GLY:O	2:F:556:GLN:HB3	2.20	0.41
1:G:420:PHE:CD1	2:H:29:PHE:HE1	2.38	0.41
2:H:70:ASN:HD22	2:H:71:ARG:CZ	2.33	0.41
2:H:146:LEU:HD11	2:H:159:ILE:HD13	2.03	0.41
2:J:17:ARG:CZ	2:J:19:TYR:CE1	3.04	0.41
2:J:121:ALA:CB	2:J:256:THR:HA	2.51	0.41
2:J:261:THR:HA	2:J:264:LYS:HE2	2.03	0.41
1:K:225:HIS:NE2	1:K:477:LEU:O	2.52	0.41
2:L:223:ILE:HB	2:L:231:LEU:HB2	2.03	0.41
2:L:268:ASP:O	2:L:272:THR:CG2	2.68	0.41
1:M:394:PHE:CD2	1:M:457:TRP:HZ2	2.38	0.41
1:M:466:MET:HB3	1:M:467:ILE:H	1.45	0.41
2:N:575:THR:HB	2:N:576:MET:CE	2.51	0.41
2:P:45:ILE:HG22	2:P:49:GLN:CB	2.51	0.41
2:P:67:VAL:HG11	2:P:74:LEU:HB2	2.02	0.41
2:P:349:ILE:CD1	2:P:364:ILE:HG21	2.51	0.41
2:P:472:LEU:HD23	2:P:472:LEU:HA	1.97	0.41
2:B:147:HIS:O	2:B:151:CYS:HB2	2.21	0.40
2:B:399:LEU:HD13	1:C:494:ARG:CG	2.38	0.40
2:B:424:ALA:HB1	2:B:429:VAL:O	2.21	0.40
1:C:112:TRP:CE3	1:C:132:MET:CE	3.04	0.40
1:C:148:ALA:O	1:C:151:LEU:HD21	2.21	0.40
1:C:226:PRO:HG2	1:C:486:MET:HE1	2.03	0.40
2:D:71:ARG:HD2	2:D:71:ARG:N	2.36	0.40
1:E:316:LEU:HD23	1:E:320:ARG:HG2	2.03	0.40
1:E:406:LYS:HB2	2:F:29:PHE:CE1	2.56	0.40
2:F:186:LEU:HD21	2:F:238:ASN:N	2.31	0.40
2:F:429:VAL:HG12	2:F:430:ASP:N	2.35	0.40
2:F:521:LEU:O	1:G:491:PRO:HB2	2.21	0.40
2:H:12:PHE:HB3	2:H:17:ARG:O	2.21	0.40
2:H:507:GLY:CA	2:H:510:ILE:HG22	2.50	0.40
2:H:589:LEU:HA	2:H:589:LEU:HD23	1.87	0.40
1:I:477:LEU:CD1	1:I:478:VAL:HG23	2.48	0.40
2:J:27:LEU:HD11	2:J:84:LEU:HD22	2.04	0.40
1:K:228:LEU:HD12	2:L:411:GLU:OE2	2.20	0.40
1:K:298:ARG:HG3	1:K:298:ARG:HH11	1.84	0.40
1:K:479:GLY:CA	2:L:415:PHE:CE1	3.03	0.40
2:L:207:LEU:HD12	2:L:207:LEU:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:70:ASN:HD22	2:N:71:ARG:CZ	2.34	0.40
2:N:198:MET:SD	2:N:220:TYR:CE2	3.11	0.40
2:N:360:HIS:CG	2:N:361:ALA:N	2.88	0.40
1:O:479:GLY:CA	2:P:415:PHE:CE1	3.02	0.40
2:P:519:MET:HB3	2:P:533:TYR:CE2	2.56	0.40
2:P:533:TYR:HA	2:P:552:PHE:O	2.21	0.40
1:A:463:ARG:O	1:A:467:ILE:HG13	2.21	0.40
2:B:27:LEU:CD1	2:B:84:LEU:HD22	2.51	0.40
2:B:33:LEU:CD2	2:B:67:VAL:HG22	2.50	0.40
2:B:112:GLU:C	2:B:114:THR:N	2.74	0.40
2:B:430:ASP:C	2:B:432:SER:N	2.74	0.40
2:B:471:PRO:HA	2:B:502:TYR:O	2.21	0.40
1:C:70:ILE:N	1:C:70:ILE:CD1	2.84	0.40
2:D:555:GLY:O	2:D:556:GLN:HB3	2.21	0.40
1:E:437:VAL:O	1:E:438:PHE:O	2.39	0.40
2:H:156:LEU:HD12	2:H:156:LEU:N	2.37	0.40
2:H:171:PHE:N	2:H:171:PHE:CD1	2.89	0.40
2:H:268:ASP:O	2:H:272:THR:CG2	2.70	0.40
1:I:267:GLN:HA	2:J:152:ARG:NH1	2.37	0.40
1:I:437:VAL:O	1:I:438:PHE:O	2.39	0.40
1:I:460:SER:O	1:I:464:PRO:CD	2.69	0.40
2:J:230:VAL:HG13	2:J:230:VAL:O	2.21	0.40
2:J:232:SER:HB3	2:J:238:ASN:HA	2.02	0.40
2:J:480:ILE:C	2:J:480:ILE:HD12	2.41	0.40
2:J:497:LEU:HD23	2:J:497:LEU:C	2.41	0.40
1:K:279:LEU:CD2	1:K:322:ASN:C	2.90	0.40
1:K:367:LEU:H	1:K:367:LEU:CD1	2.23	0.40
2:L:17:ARG:CZ	2:L:19:TYR:CE1	3.03	0.40
2:L:120:PHE:HB3	2:L:291:PHE:HE2	1.85	0.40
2:L:129:ILE:CD1	2:L:251:ILE:HD12	2.50	0.40
2:L:156:LEU:N	2:L:156:LEU:HD12	2.35	0.40
2:L:411:GLU:HA	2:L:475:PHE:O	2.21	0.40
2:N:112:GLU:C	2:N:114:THR:N	2.75	0.40
1:O:225:HIS:CD2	2:P:413:LEU:HB2	2.56	0.40
2:P:157:VAL:HG22	2:P:263:ALA:HB2	2.03	0.40
1:A:250:ASN:CG	1:A:250:ASN:O	2.60	0.40
1:A:268:HIS:HD2	1:A:270:ALA:HB3	1.86	0.40
1:A:422:TYR:CD2	1:A:423:HIS:N	2.89	0.40
2:B:3:THR:CG2	2:B:64:LYS:HG3	2.52	0.40
2:B:88:LYS:HB2	2:B:90:ARG:HG3	2.03	0.40
2:D:12:PHE:HB3	2:D:17:ARG:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:33:LEU:CD2	2:D:67:VAL:HG22	2.49	0.40
2:D:122:VAL:HG22	2:D:123:ALA:N	2.37	0.40
2:D:420:GLN:HG2	2:D:449:VAL:HG23	2.02	0.40
1:E:258:ASN:O	1:E:259:PHE:HD2	2.03	0.40
1:E:420:PHE:HA	1:E:430:VAL:O	2.21	0.40
2:F:42:LYS:HB3	2:F:58:SER:CB	2.51	0.40
2:F:70:ASN:HD22	2:F:71:ARG:CZ	2.35	0.40
2:F:186:LEU:HD22	2:F:186:LEU:H	1.86	0.40
2:F:458:LEU:O	2:F:461:THR:HB	2.21	0.40
1:G:189:GLU:HB2	1:G:206:PRO:HA	2.03	0.40
1:G:208:LYS:O	1:G:210:TYR:N	2.54	0.40
1:G:379:ASP:CG	1:G:380:HIS:H	2.25	0.40
1:G:391:LEU:HD13	1:G:419:VAL:CG2	2.51	0.40
1:G:474:ILE:C	1:G:476:GLU:N	2.75	0.40
1:G:484:LEU:HG	2:H:465:ASN:CG	2.41	0.40
2:H:126:LEU:CD2	2:H:251:ILE:HB	2.52	0.40
2:H:129:ILE:CD1	2:H:251:ILE:HD12	2.51	0.40
1:I:414:GLU:HG2	1:I:437:VAL:O	2.21	0.40
1:I:443:LEU:HD11	1:I:454:VAL:HG13	2.04	0.40
2:J:62:LEU:N	2:J:62:LEU:CD2	2.83	0.40
2:J:530:LYS:O	2:J:530:LYS:HG3	2.20	0.40
1:K:364:ALA:HB1	1:K:475:ARG:HH21	1.84	0.40
2:L:147:HIS:NE2	2:L:159:ILE:HG12	2.37	0.40
2:L:468:MET:HA	2:L:469:PRO:HD3	1.93	0.40
2:L:550:GLU:HB3	2:L:552:PHE:HE1	1.87	0.40
1:M:298:ARG:HG3	1:M:298:ARG:HH11	1.85	0.40
1:M:467:ILE:O	1:M:468:LYS:C	2.59	0.40
1:M:474:ILE:HG22	1:M:474:ILE:O	2.20	0.40
2:N:223:ILE:HB	2:N:231:LEU:HB2	2.02	0.40
1:O:228:LEU:HD12	2:P:411:GLU:CD	2.41	0.40
1:O:301:SER:O	1:O:311:LYS:HA	2.21	0.40
1:O:350:TYR:HB2	1:O:376:VAL:CG1	2.51	0.40
2:P:9:ASP:N	2:P:9:ASP:OD2	2.53	0.40
2:P:519:MET:HE1	2:P:588:PHE:CZ	2.57	0.40
1:A:253:GLU:OE1	1:A:257:TRP:HB2	2.21	0.40
2:B:118:ARG:CZ	2:B:257:GLY:HA2	2.51	0.40
2:B:207:LEU:HD12	2:B:207:LEU:N	2.36	0.40
2:B:480:ILE:HG21	2:B:496:HIS:HD2	1.86	0.40
2:B:482:ILE:HG22	2:B:483:LYS:N	2.36	0.40
1:C:163:LYS:O	1:C:163:LYS:CG	2.70	0.40
1:C:268:HIS:CD2	1:C:270:ALA:CB	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:20:THR:HB	2:D:23:GLU:HG3	2.03	0.40
2:D:62:LEU:N	2:D:62:LEU:CD2	2.85	0.40
2:D:132:THR:HG23	2:D:133:LYS:N	2.36	0.40
2:D:528:GLU:C	2:D:530:LYS:H	2.24	0.40
1:E:373:ILE:CG2	1:E:461:LEU:HD23	2.51	0.40
1:E:394:PHE:CD2	1:E:457:TRP:HZ2	2.40	0.40
2:F:12:PHE:HB3	2:F:17:ARG:O	2.21	0.40
2:F:68:PRO:C	2:F:70:ASN:N	2.73	0.40
2:F:71:ARG:HG3	2:F:355:ARG:CZ	2.51	0.40
2:F:181:ILE:O	2:F:193:THR:HA	2.21	0.40
2:F:551:ILE:HG12	2:F:559:GLY:O	2.22	0.40
2:F:570:THR:CG2	1:G:197:ILE:CG2	2.99	0.40
1:G:459:LEU:HD12	1:G:459:LEU:C	2.42	0.40
1:G:460:SER:O	1:G:464:PRO:CD	2.69	0.40
2:H:91:ILE:HG12	2:H:92:LYS:O	2.21	0.40
2:H:534:VAL:HG23	2:H:534:VAL:O	2.21	0.40
1:I:440:PRO:HG3	2:J:360:HIS:HE2	1.83	0.40
1:I:449:PRO:HB2	1:I:451:ASN:OD1	2.22	0.40
2:J:584:ASN:ND2	2:J:587:PRO:HD3	2.36	0.40
1:K:432:VAL:HG23	1:K:432:VAL:O	2.21	0.40
2:L:115:ALA:O	2:L:116:LYS:CB	2.69	0.40
2:L:139:PHE:CZ	2:L:161:THR:HG21	2.57	0.40
2:L:444:THR:HG21	2:L:446:GLU:HG3	2.02	0.40
1:M:305:TYR:HB3	1:M:444:LEU:CD1	2.51	0.40
2:N:103:GLY:O	2:N:105:ILE:HG12	2.22	0.40
2:N:171:PHE:CD2	2:N:231:LEU:HD21	2.57	0.40
2:N:245:THR:O	2:N:247:ASN:N	2.55	0.40
2:N:503:ASN:O	2:N:576:MET:HB3	2.21	0.40
1:O:222:GLY:N	2:P:408:GLY:HA2	2.37	0.40
1:O:359:ASN:HD21	2:P:443:LYS:HD2	1.86	0.40
2:P:122:VAL:CG2	2:P:299:PHE:CG	3.05	0.40
2:P:274:PHE:C	2:P:276:GLU:H	2.23	0.40
1:A:224:LEU:HD22	2:B:401:ARG:HH12	1.86	0.40
1:A:316:LEU:CD2	1:A:320:ARG:HD3	2.52	0.40
1:A:396:THR:C	1:A:398:LEU:N	2.75	0.40
1:A:461:LEU:HD22	1:A:461:LEU:HA	1.83	0.40
2:B:98:ARG:NH1	2:B:98:ARG:HG2	2.36	0.40
2:B:120:PHE:HE1	2:B:258:THR:C	2.25	0.40
2:B:123:ALA:HB2	2:B:254:GLU:HA	2.02	0.40
2:B:420:GLN:HG2	2:B:449:VAL:CG2	2.52	0.40
2:B:576:MET:HB3	2:B:577:PRO:CD	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:7:ALA:C	1:C:9:LEU:H	2.24	0.40
2:D:183:PHE:HD2	2:D:184:LYS:H	1.69	0.40
2:D:458:LEU:HD23	2:D:458:LEU:HA	1.87	0.40
2:D:511:ILE:HG22	2:D:561:LEU:HD21	2.03	0.40
1:E:414:GLU:CD	2:F:362:CYS:SG	3.00	0.40
2:F:42:LYS:O	2:F:46:SER:HB2	2.21	0.40
2:F:118:ARG:NH2	2:F:256:THR:O	2.54	0.40
2:F:126:LEU:HB2	2:F:278:CYS:SG	2.62	0.40
2:F:584:ASN:O	2:F:587:PRO:HD2	2.22	0.40
1:G:316:LEU:CD2	1:G:320:ARG:HD3	2.51	0.40
1:G:346:THR:HG23	1:G:346:THR:O	2.22	0.40
1:G:403:LEU:CD2	1:G:419:VAL:HG12	2.52	0.40
2:H:112:GLU:C	2:H:114:THR:N	2.75	0.40
2:H:219:LEU:C	2:H:220:TYR:HD1	2.25	0.40
2:H:411:GLU:HA	2:H:475:PHE:O	2.22	0.40
2:H:486:ASN:HD22	2:H:486:ASN:N	2.18	0.40
2:H:584:ASN:ND2	2:H:587:PRO:HD3	2.37	0.40
1:I:272:ASP:O	1:I:274:HIS:N	2.55	0.40
2:J:444:THR:HG21	2:J:446:GLU:HG3	2.04	0.40
2:J:482:ILE:CG2	2:J:483:LYS:N	2.84	0.40
2:J:486:ASN:HD22	2:J:486:ASN:N	2.19	0.40
2:J:512:HIS:ND1	1:K:216:GLY:CA	2.85	0.40
1:K:189:GLU:O	1:K:208:LYS:N	2.39	0.40
1:K:190:THR:HB	1:K:191:GLU:H	1.69	0.40
1:K:380:HIS:CD2	1:K:452:VAL:HG22	2.56	0.40
1:K:414:GLU:HG2	1:K:437:VAL:O	2.21	0.40
2:L:358:ILE:O	2:L:358:ILE:HG22	2.22	0.40
1:M:266:GLN:HB2	1:M:312:TYR:CE2	2.42	0.40
2:N:44:ILE:HG13	2:N:44:ILE:H	1.54	0.40
2:N:334:MET:HG2	2:N:367:ASP:CB	2.50	0.40
2:N:566:PRO:HB3	1:O:202:TRP:CH2	2.56	0.40
1:O:211:ASN:HD22	1:O:212:PHE:N	2.20	0.40
1:O:227:LEU:HD22	1:O:461:LEU:HD12	2.04	0.40
1:O:246:MET:HG3	1:O:352:SER:HB3	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	316/508 (62%)	246 (78%)	42 (13%)	28 (9%)	1 4
1	C	506/508 (100%)	382 (76%)	84 (17%)	40 (8%)	1 6
1	E	307/508 (60%)	233 (76%)	42 (14%)	32 (10%)	0 3
1	G	307/508 (60%)	241 (78%)	34 (11%)	32 (10%)	0 3
1	I	311/508 (61%)	254 (82%)	38 (12%)	19 (6%)	1 10
1	K	343/508 (68%)	257 (75%)	58 (17%)	28 (8%)	1 5
1	M	319/508 (63%)	233 (73%)	46 (14%)	40 (12%)	0 1
1	O	307/508 (60%)	243 (79%)	36 (12%)	28 (9%)	1 4
2	B	587/589 (100%)	484 (82%)	77 (13%)	26 (4%)	2 16
2	D	587/589 (100%)	480 (82%)	77 (13%)	30 (5%)	2 13
2	F	587/589 (100%)	485 (83%)	78 (13%)	24 (4%)	3 17
2	H	587/589 (100%)	478 (81%)	74 (13%)	35 (6%)	1 10
2	J	587/589 (100%)	482 (82%)	78 (13%)	27 (5%)	2 15
2	L	587/589 (100%)	478 (81%)	82 (14%)	27 (5%)	2 15
2	N	587/589 (100%)	479 (82%)	75 (13%)	33 (6%)	2 11
2	P	587/589 (100%)	474 (81%)	84 (14%)	29 (5%)	2 14
All	All	7412/8776 (84%)	5929 (80%)	1005 (14%)	478 (6%)	1 9

All (478) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	200	GLY
1	A	203	ARG
1	A	206	PRO
1	A	215	HIS
1	A	265	PRO
1	A	275	ASP

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Mol	Chain	Res	Type
1	A	360	GLU
1	A	427	LYS
1	A	469	TYR
1	A	470	GLY
1	A	492	LEU
1	A	493	CYS
2	B	46	SER
2	B	53	LYS
2	B	115	ALA
2	B	116	LYS
2	B	186	LEU
2	B	211	LEU
2	B	216	ASN
2	B	234	PRO
2	B	302	LEU
2	B	451	ARG
2	B	470	LEU
2	B	530	LYS
1	C	33	GLU
1	C	101	LYS
1	C	120	ALA
1	C	343	LYS
1	C	362	LEU
1	C	363	ASP
1	C	428	LYS
1	C	432	VAL
1	C	438	PHE
2	D	115	ALA
2	D	116	LYS
2	D	186	LEU
2	D	211	LEU
2	D	216	ASN
2	D	234	PRO
2	D	302	LEU
2	D	451	ARG
2	D	470	LEU
1	E	200	GLY
1	E	219	PRO
1	E	221	SER
1	E	272	ASP
1	E	366	HIS
1	E	472	ASN

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Mol	Chain	Res	Type
1	E	475	ARG
1	E	496	ASP
2	F	115	ALA
2	F	116	LYS
2	F	186	LEU
2	F	211	LEU
2	F	216	ASN
2	F	234	PRO
2	F	302	LEU
2	F	451	ARG
2	F	470	LEU
2	F	530	LYS
1	G	191	GLU
1	G	204	ASP
1	G	205	ARG
1	G	206	PRO
1	G	207	PHE
1	G	213	LEU
1	G	220	ASP
1	G	273	GLN
1	G	274	HIS
1	G	281	ASP
1	G	343	LYS
1	G	366	HIS
1	G	438	PHE
2	H	44	ILE
2	H	45	ILE
2	H	115	ALA
2	H	116	LYS
2	H	186	LEU
2	H	211	LEU
2	H	216	ASN
2	H	234	PRO
2	H	302	LEU
2	H	451	ARG
2	H	470	LEU
2	H	529	ASP
1	I	190	THR
1	I	209	PRO
1	I	283	ALA
1	I	290	MET
1	I	343	LYS

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Mol	Chain	Res	Type
1	I	361	THR
1	I	426	LEU
2	J	115	ALA
2	J	116	LYS
2	J	186	LEU
2	J	211	LEU
2	J	216	ASN
2	J	234	PRO
2	J	302	LEU
2	J	451	ARG
2	J	470	LEU
2	J	529	ASP
1	K	188	GLN
1	K	199	SER
1	K	360	GLU
1	K	367	LEU
1	K	497	ALA
2	L	115	ALA
2	L	116	LYS
2	L	186	LEU
2	L	211	LEU
2	L	216	ASN
2	L	234	PRO
2	L	302	LEU
2	L	451	ARG
2	L	470	LEU
2	L	529	ASP
1	M	179	SER
1	M	184	SER
1	M	185	ILE
1	M	207	PHE
1	M	217	VAL
1	M	260	ASP
1	M	269	PRO
1	M	284	GLU
1	M	285	ALA
1	M	286	LEU
1	M	290	MET
1	M	438	PHE
1	M	466	MET
2	N	44	ILE
2	N	115	ALA

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Mol	Chain	Res	Type
2	N	116	LYS
2	N	186	LEU
2	N	211	LEU
2	N	216	ASN
2	N	234	PRO
2	N	451	ARG
2	N	470	LEU
2	N	532	GLY
1	O	213	LEU
1	O	283	ALA
1	O	285	ALA
1	O	289	PRO
1	O	363	ASP
1	O	364	ALA
1	O	438	PHE
2	P	44	ILE
2	P	51	ASN
2	P	115	ALA
2	P	116	LYS
2	P	186	LEU
2	P	211	LEU
2	P	216	ASN
2	P	234	PRO
2	P	302	LEU
2	P	451	ARG
2	P	470	LEU
1	A	184	SER
1	A	188	GLN
1	A	211	ASN
1	A	298	ARG
1	A	309	GLY
1	A	343	LYS
1	A	438	PHE
1	A	497	ALA
2	B	51	ASN
2	B	246	VAL
2	B	342	GLY
2	B	344	GLY
2	B	443	LYS
1	C	122	GLY
1	C	141	GLN
1	C	148	ALA

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Mol	Chain	Res	Type
1	C	165	LEU
1	C	180	ALA
1	C	185	ILE
1	C	187	LYS
1	C	201	SER
1	C	212	PHE
1	C	298	ARG
1	C	309	GLY
1	C	431	GLU
1	C	498	GLU
2	D	44	ILE
2	D	47	LYS
2	D	51	ASN
2	D	246	VAL
2	D	342	GLY
2	D	344	GLY
2	D	443	LYS
2	D	529	ASP
1	E	209	PRO
1	E	265	PRO
1	E	289	PRO
1	E	290	MET
1	E	298	ARG
1	E	309	GLY
1	E	343	LYS
1	E	426	LEU
1	E	438	PHE
1	E	470	GLY
1	E	474	ILE
1	E	477	LEU
2	F	342	GLY
2	F	344	GLY
2	F	443	LYS
1	G	193	SER
1	G	201	SER
1	G	298	ARG
1	G	309	GLY
1	G	422	TYR
1	G	426	LEU
2	H	43	GLU
2	H	246	VAL
2	H	342	GLY

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Mol	Chain	Res	Type
2	H	344	GLY
2	H	443	LYS
2	H	532	GLY
1	I	201	SER
1	I	281	ASP
1	I	298	ARG
1	I	309	GLY
1	I	360	GLU
1	I	438	PHE
2	J	246	VAL
2	J	342	GLY
2	J	344	GLY
1	K	12	ARG
1	K	186	SER
1	K	192	LEU
1	K	212	PHE
1	K	220	ASP
1	K	298	ARG
1	K	309	GLY
1	K	343	LYS
1	K	362	LEU
1	K	428	LYS
1	K	438	PHE
1	K	471	ILE
2	L	57	ALA
2	L	246	VAL
2	L	342	GLY
2	L	344	GLY
2	L	443	LYS
1	M	182	SER
1	M	188	GLN
1	M	195	GLU
1	M	200	GLY
1	M	214	ALA
1	M	216	GLY
1	M	298	ARG
1	M	309	GLY
1	M	343	LYS
1	M	362	LEU
1	M	367	LEU
1	M	491	PRO
2	N	246	VAL

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Mol	Chain	Res	Type
2	N	302	LEU
2	N	342	GLY
2	N	344	GLY
2	N	443	LYS
2	N	531	GLY
1	O	189	GLU
1	O	192	LEU
1	O	199	SER
1	O	200	GLY
1	O	298	ARG
1	O	309	GLY
1	O	343	LYS
1	O	367	LEU
1	O	425	GLY
2	P	50	GLY
2	P	246	VAL
2	P	342	GLY
2	P	344	GLY
2	P	443	LYS
2	B	104	LYS
2	B	469	PRO
1	C	41	VAL
1	C	265	PRO
1	C	281	ASP
1	C	289	PRO
1	C	364	ALA
1	C	414	GLU
1	C	424	GLN
1	C	504	THR
2	D	69	ALA
2	D	104	LYS
1	E	270	ALA
1	E	469	TYR
1	E	495	LEU
2	F	48	GLU
2	F	104	LYS
2	F	246	VAL
2	F	469	PRO
1	G	268	HIS
1	G	269	PRO
1	G	287	GLN
1	G	492	LEU

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Mol	Chain	Res	Type
2	H	52	VAL
2	H	104	LYS
2	H	469	PRO
1	I	273	GLN
2	J	104	LYS
2	J	106	GLN
2	J	443	LYS
1	K	190	THR
1	K	364	ALA
2	L	69	ALA
2	L	104	LYS
1	M	199	SER
1	M	201	SER
1	M	467	ILE
2	N	59	ASP
2	N	104	LYS
2	N	106	GLN
2	N	469	PRO
2	N	528	GLU
1	O	219	PRO
1	O	359	ASN
1	O	362	LEU
1	O	424	GLN
2	P	104	LYS
2	P	469	PRO
2	P	532	GLY
1	A	212	PHE
1	A	250	ASN
1	A	414	GLU
1	A	466	MET
2	B	260	PHE
1	C	71	ALA
1	C	249	ASP
1	C	250	ASN
2	D	50	GLY
2	D	57	ALA
2	D	106	GLN
2	D	119	PRO
2	D	260	PHE
2	D	469	PRO
1	E	205	ARG
1	E	213	LEU

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Mol	Chain	Res	Type
1	E	250	ASN
1	E	286	LEU
1	E	414	GLU
2	F	260	PHE
1	G	200	GLY
1	G	214	ALA
1	G	250	ASN
1	G	290	MET
1	G	363	ASP
1	G	414	GLU
2	H	51	ASN
2	H	56	GLY
2	H	59	ASP
2	H	69	ALA
2	H	260	PHE
1	I	215	HIS
1	I	250	ASN
1	I	414	GLU
1	I	469	TYR
2	J	69	ALA
2	J	260	PHE
2	J	469	PRO
1	K	180	ALA
1	K	250	ASN
1	K	414	GLU
2	L	50	GLY
2	L	106	GLN
2	L	260	PHE
2	L	469	PRO
1	M	180	ALA
1	M	220	ASP
1	M	250	ASN
1	M	283	ALA
1	M	414	GLU
2	N	51	ASN
2	N	69	ALA
2	N	260	PHE
1	O	198	SER
1	O	220	ASP
1	O	250	ASN
1	O	414	GLU
1	O	491	PRO

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Mol	Chain	Res	Type
2	P	69	ALA
2	P	106	GLN
2	P	167	LEU
2	P	260	PHE
1	A	209	PRO
1	A	249	ASP
2	B	106	GLN
2	B	119	PRO
2	B	281	GLN
2	B	456	PRO
1	C	50	VAL
2	D	167	LEU
2	D	392	PRO
2	D	456	PRO
1	E	217	VAL
2	F	69	ALA
2	F	119	PRO
2	F	167	LEU
2	F	281	GLN
2	F	392	PRO
2	F	456	PRO
2	H	106	GLN
2	H	119	PRO
2	H	167	LEU
2	H	281	GLN
2	H	335	TYR
2	J	51	ASN
2	J	119	PRO
2	J	167	LEU
2	J	281	GLN
2	J	335	TYR
2	J	392	PRO
1	K	43	SER
2	L	54	ALA
2	L	119	PRO
2	L	167	LEU
2	L	392	PRO
1	M	205	ARG
1	M	206	PRO
1	M	430	VAL
1	M	473	ASN
2	N	45	ILE

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Mol	Chain	Res	Type
2	N	119	PRO
2	N	167	LEU
2	N	335	TYR
2	N	392	PRO
2	N	456	PRO
2	N	527	GLY
1	O	286	LEU
1	O	477	LEU
2	P	49	GLN
2	P	119	PRO
2	P	456	PRO
1	A	185	ILE
2	B	392	PRO
1	C	157	SER
1	C	221	SER
2	D	281	GLN
1	G	249	ASP
2	H	392	PRO
2	H	456	PRO
2	J	456	PRO
1	K	281	ASP
2	L	456	PRO
1	M	281	ASP
2	P	281	GLN
2	P	392	PRO
1	C	97	LEU
1	C	471	ILE
1	E	216	GLY
1	E	269	PRO
1	K	4	GLY
2	N	60	VAL
1	C	85	PRO
1	E	478	VAL
1	G	209	PRO
2	H	50	GLY
1	I	282	PRO
1	K	265	PRO
1	M	478	VAL
1	A	281	ASP
2	D	105	ILE
2	L	105	ILE
1	M	268	HIS

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Mol	Chain	Res	Type
2	N	105	ILE
1	O	281	ASP
2	P	105	ILE
2	B	105	ILE
2	H	105	ILE
2	J	105	ILE
1	K	185	ILE
1	C	470	GLY
1	G	216	GLY
1	K	288	LEU

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	281/434 (65%)	254 (90%)	27 (10%)	8 29
1	C	434/434 (100%)	382 (88%)	52 (12%)	5 20
1	E	272/434 (63%)	233 (86%)	39 (14%)	3 15
1	G	273/434 (63%)	241 (88%)	32 (12%)	5 21
1	I	276/434 (64%)	248 (90%)	28 (10%)	7 27
1	K	284/434 (65%)	247 (87%)	37 (13%)	4 17
1	M	276/434 (64%)	240 (87%)	36 (13%)	4 17
1	O	274/434 (63%)	235 (86%)	39 (14%)	3 15
2	B	513/513 (100%)	453 (88%)	60 (12%)	5 21
2	D	513/513 (100%)	456 (89%)	57 (11%)	6 23
2	F	513/513 (100%)	456 (89%)	57 (11%)	6 23
2	H	513/513 (100%)	455 (89%)	58 (11%)	6 22
2	J	513/513 (100%)	458 (89%)	55 (11%)	6 25
2	L	513/513 (100%)	455 (89%)	58 (11%)	6 22
2	N	513/513 (100%)	453 (88%)	60 (12%)	5 21
2	P	513/513 (100%)	454 (88%)	59 (12%)	5 22

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	6474/7576 (86%)	5720 (88%)	754 (12%)	5 22

All (754) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	187	LYS
1	A	207	PHE
1	A	217	VAL
1	A	227	LEU
1	A	249	ASP
1	A	264	GLN
1	A	280	ARG
1	A	290	MET
1	A	298	ARG
1	A	300	HIS
1	A	313	ASN
1	A	327	HIS
1	A	366	HIS
1	A	373	ILE
1	A	414	GLU
1	A	416	SER
1	A	422	TYR
1	A	430	VAL
1	A	441	GLU
1	A	454	VAL
1	A	459	LEU
1	A	461	LEU
1	A	462	GLU
1	A	469	TYR
1	A	471	ILE
1	A	477	LEU
1	A	486	MET
2	B	21	ASP
2	B	41	GLU
2	B	60	VAL
2	B	61	VAL
2	B	62	LEU
2	B	66	ASP
2	B	82	ARG
2	B	85	GLN
2	B	98	ARG
2	B	108	LEU

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Mol	Chain	Res	Type
2	B	119	PRO
2	B	120	PHE
2	B	126	LEU
2	B	127	ARG
2	B	132	THR
2	B	147	HIS
2	B	149	ASN
2	B	150	ILE
2	B	170	PRO
2	B	183	PHE
2	B	192	TYR
2	B	211	LEU
2	B	212	HIS
2	B	234	PRO
2	B	237	ILE
2	B	244	ILE
2	B	249	ARG
2	B	254	GLU
2	B	261	THR
2	B	268	ASP
2	B	271	VAL
2	B	308	MET
2	B	327	LEU
2	B	345	ASN
2	B	357	ASP
2	B	381	LEU
2	B	384	THR
2	B	391	PHE
2	B	392	PRO
2	B	393	LEU
2	B	413	LEU
2	B	431	ILE
2	B	469	PRO
2	B	471	PRO
2	B	489	VAL
2	B	493	ASN
2	B	503	ASN
2	B	509	GLU
2	B	511	ILE
2	B	517	ARG
2	B	521	LEU
2	B	535	ILE

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Mol	Chain	Res	Type
2	B	548	CYS
2	B	551	ILE
2	B	561	LEU
2	B	566	PRO
2	B	567	ASP
2	B	569	ILE
2	B	578	CYS
2	B	580	SER
1	C	3	ASP
1	C	6	VAL
1	C	9	LEU
1	C	44	LEU
1	C	49	GLU
1	C	59	LYS
1	C	66	GLU
1	C	68	GLU
1	C	72	ARG
1	C	97	LEU
1	C	106	LYS
1	C	110	ASN
1	C	114	ARG
1	C	140	LEU
1	C	141	GLN
1	C	144	ARG
1	C	151	LEU
1	C	162	ARG
1	C	165	LEU
1	C	181	PHE
1	C	187	LYS
1	C	188	GLN
1	C	206	PRO
1	C	208	LYS
1	C	217	VAL
1	C	249	ASP
1	C	267	GLN
1	C	273	GLN
1	C	276	THR
1	C	290	MET
1	C	298	ARG
1	C	300	HIS
1	C	327	HIS
1	C	362	LEU

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Mol	Chain	Res	Type
1	C	363	ASP
1	C	365	THR
1	C	373	ILE
1	C	414	GLU
1	C	416	SER
1	C	422	TYR
1	C	441	GLU
1	C	454	VAL
1	C	459	LEU
1	C	461	LEU
1	C	462	GLU
1	C	472	ASN
1	C	475	ARG
1	C	477	LEU
1	C	480	HIS
1	C	494	ARG
1	C	495	LEU
1	C	500	ARG
2	D	21	ASP
2	D	51	ASN
2	D	62	LEU
2	D	66	ASP
2	D	82	ARG
2	D	85	GLN
2	D	98	ARG
2	D	108	LEU
2	D	117	ILE
2	D	119	PRO
2	D	120	PHE
2	D	126	LEU
2	D	132	THR
2	D	147	HIS
2	D	149	ASN
2	D	150	ILE
2	D	183	PHE
2	D	192	TYR
2	D	211	LEU
2	D	212	HIS
2	D	234	PRO
2	D	237	ILE
2	D	244	ILE
2	D	249	ARG

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Mol	Chain	Res	Type
2	D	254	GLU
2	D	268	ASP
2	D	271	VAL
2	D	308	MET
2	D	327	LEU
2	D	335	TYR
2	D	345	ASN
2	D	357	ASP
2	D	381	LEU
2	D	384	THR
2	D	391	PHE
2	D	392	PRO
2	D	393	LEU
2	D	413	LEU
2	D	425	ASP
2	D	431	ILE
2	D	453	THR
2	D	469	PRO
2	D	475	PHE
2	D	489	VAL
2	D	493	ASN
2	D	503	ASN
2	D	509	GLU
2	D	511	ILE
2	D	517	ARG
2	D	521	LEU
2	D	529	ASP
2	D	535	ILE
2	D	551	ILE
2	D	561	LEU
2	D	567	ASP
2	D	569	ILE
2	D	580	SER
1	E	202	TRP
1	E	213	LEU
1	E	219	PRO
1	E	249	ASP
1	E	258	ASN
1	E	260	ASP
1	E	276	THR
1	E	279	LEU
1	E	286	LEU

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Mol	Chain	Res	Type
1	E	288	LEU
1	E	290	MET
1	E	298	ARG
1	E	300	HIS
1	E	313	ASN
1	E	327	HIS
1	E	344	PRO
1	E	356	VAL
1	E	366	HIS
1	E	370	PHE
1	E	373	ILE
1	E	376	VAL
1	E	414	GLU
1	E	416	SER
1	E	422	TYR
1	E	426	LEU
1	E	430	VAL
1	E	441	GLU
1	E	454	VAL
1	E	459	LEU
1	E	461	LEU
1	E	462	GLU
1	E	465	THR
1	E	466	MET
1	E	469	TYR
1	E	473	ASN
1	E	475	ARG
1	E	477	LEU
1	E	486	MET
1	E	495	LEU
2	F	18	THR
2	F	21	ASP
2	F	62	LEU
2	F	66	ASP
2	F	82	ARG
2	F	85	GLN
2	F	98	ARG
2	F	108	LEU
2	F	117	ILE
2	F	119	PRO
2	F	120	PHE
2	F	126	LEU

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Mol	Chain	Res	Type
2	F	132	THR
2	F	147	HIS
2	F	149	ASN
2	F	150	ILE
2	F	167	LEU
2	F	183	PHE
2	F	192	TYR
2	F	211	LEU
2	F	212	HIS
2	F	234	PRO
2	F	237	ILE
2	F	244	ILE
2	F	249	ARG
2	F	254	GLU
2	F	268	ASP
2	F	271	VAL
2	F	308	MET
2	F	345	ASN
2	F	355	ARG
2	F	357	ASP
2	F	381	LEU
2	F	384	THR
2	F	391	PHE
2	F	392	PRO
2	F	393	LEU
2	F	413	LEU
2	F	425	ASP
2	F	431	ILE
2	F	453	THR
2	F	469	PRO
2	F	475	PHE
2	F	489	VAL
2	F	503	ASN
2	F	509	GLU
2	F	511	ILE
2	F	517	ARG
2	F	521	LEU
2	F	535	ILE
2	F	548	CYS
2	F	551	ILE
2	F	561	LEU
2	F	567	ASP

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Mol	Chain	Res	Type
2	F	569	ILE
2	F	578	CYS
2	F	580	SER
1	G	202	TRP
1	G	207	PHE
1	G	211	ASN
1	G	249	ASP
1	G	263	PHE
1	G	268	HIS
1	G	271	ARG
1	G	274	HIS
1	G	275	ASP
1	G	279	LEU
1	G	290	MET
1	G	298	ARG
1	G	300	HIS
1	G	327	HIS
1	G	359	ASN
1	G	367	LEU
1	G	373	ILE
1	G	414	GLU
1	G	416	SER
1	G	422	TYR
1	G	423	HIS
1	G	424	GLN
1	G	432	VAL
1	G	441	GLU
1	G	454	VAL
1	G	459	LEU
1	G	461	LEU
1	G	462	GLU
1	G	468	LYS
1	G	475	ARG
1	G	476	GLU
1	G	480	HIS
2	H	21	ASP
2	H	45	ILE
2	H	62	LEU
2	H	66	ASP
2	H	82	ARG
2	H	85	GLN
2	H	98	ARG

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Mol	Chain	Res	Type
2	H	108	LEU
2	H	119	PRO
2	H	120	PHE
2	H	126	LEU
2	H	127	ARG
2	H	132	THR
2	H	147	HIS
2	H	149	ASN
2	H	150	ILE
2	H	183	PHE
2	H	192	TYR
2	H	211	LEU
2	H	212	HIS
2	H	234	PRO
2	H	237	ILE
2	H	244	ILE
2	H	249	ARG
2	H	254	GLU
2	H	261	THR
2	H	268	ASP
2	H	271	VAL
2	H	308	MET
2	H	327	LEU
2	H	345	ASN
2	H	357	ASP
2	H	381	LEU
2	H	384	THR
2	H	391	PHE
2	H	392	PRO
2	H	393	LEU
2	H	413	LEU
2	H	425	ASP
2	H	431	ILE
2	H	453	THR
2	H	469	PRO
2	H	471	PRO
2	H	475	PHE
2	H	489	VAL
2	H	493	ASN
2	H	503	ASN
2	H	509	GLU
2	H	511	ILE

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Mol	Chain	Res	Type
2	H	517	ARG
2	H	533	TYR
2	H	535	ILE
2	H	548	CYS
2	H	551	ILE
2	H	561	LEU
2	H	567	ASP
2	H	569	ILE
2	H	580	SER
1	I	190	THR
1	I	207	PHE
1	I	213	LEU
1	I	227	LEU
1	I	249	ASP
1	I	258	ASN
1	I	267	GLN
1	I	274	HIS
1	I	290	MET
1	I	298	ARG
1	I	300	HIS
1	I	327	HIS
1	I	359	ASN
1	I	361	THR
1	I	373	ILE
1	I	398	LEU
1	I	414	GLU
1	I	416	SER
1	I	419	VAL
1	I	441	GLU
1	I	454	VAL
1	I	459	LEU
1	I	461	LEU
1	I	462	GLU
1	I	475	ARG
1	I	486	MET
1	I	493	CYS
1	I	499	PRO
2	J	21	ASP
2	J	41	GLU
2	J	61	VAL
2	J	62	LEU
2	J	66	ASP

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Mol	Chain	Res	Type
2	J	82	ARG
2	J	85	GLN
2	J	98	ARG
2	J	108	LEU
2	J	117	ILE
2	J	120	PHE
2	J	126	LEU
2	J	127	ARG
2	J	132	THR
2	J	147	HIS
2	J	149	ASN
2	J	150	ILE
2	J	183	PHE
2	J	192	TYR
2	J	211	LEU
2	J	212	HIS
2	J	234	PRO
2	J	237	ILE
2	J	244	ILE
2	J	249	ARG
2	J	254	GLU
2	J	268	ASP
2	J	271	VAL
2	J	308	MET
2	J	327	LEU
2	J	345	ASN
2	J	355	ARG
2	J	357	ASP
2	J	381	LEU
2	J	384	THR
2	J	391	PHE
2	J	392	PRO
2	J	393	LEU
2	J	413	LEU
2	J	425	ASP
2	J	431	ILE
2	J	453	THR
2	J	469	PRO
2	J	489	VAL
2	J	503	ASN
2	J	509	GLU
2	J	511	ILE

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Mol	Chain	Res	Type
2	J	517	ARG
2	J	535	ILE
2	J	551	ILE
2	J	561	LEU
2	J	567	ASP
2	J	569	ILE
2	J	578	CYS
2	J	580	SER
1	K	185	ILE
1	K	188	GLN
1	K	194	PRO
1	K	197	ILE
1	K	211	ASN
1	K	213	LEU
1	K	220	ASP
1	K	227	LEU
1	K	249	ASP
1	K	267	GLN
1	K	280	ARG
1	K	288	LEU
1	K	290	MET
1	K	298	ARG
1	K	300	HIS
1	K	313	ASN
1	K	327	HIS
1	K	359	ASN
1	K	367	LEU
1	K	373	ILE
1	K	414	GLU
1	K	416	SER
1	K	422	TYR
1	K	424	GLN
1	K	426	LEU
1	K	432	VAL
1	K	441	GLU
1	K	454	VAL
1	K	459	LEU
1	K	461	LEU
1	K	462	GLU
1	K	465	THR
1	K	474	ILE
1	K	477	LEU

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Mol	Chain	Res	Type
1	K	480	HIS
1	K	492	LEU
1	K	493	CYS
2	L	9	ASP
2	L	21	ASP
2	L	40	SER
2	L	62	LEU
2	L	66	ASP
2	L	82	ARG
2	L	85	GLN
2	L	98	ARG
2	L	108	LEU
2	L	117	ILE
2	L	120	PHE
2	L	126	LEU
2	L	127	ARG
2	L	132	THR
2	L	147	HIS
2	L	149	ASN
2	L	150	ILE
2	L	183	PHE
2	L	192	TYR
2	L	211	LEU
2	L	212	HIS
2	L	234	PRO
2	L	237	ILE
2	L	244	ILE
2	L	249	ARG
2	L	254	GLU
2	L	268	ASP
2	L	271	VAL
2	L	308	MET
2	L	327	LEU
2	L	335	TYR
2	L	345	ASN
2	L	357	ASP
2	L	381	LEU
2	L	384	THR
2	L	391	PHE
2	L	392	PRO
2	L	393	LEU
2	L	413	LEU

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Mol	Chain	Res	Type
2	L	425	ASP
2	L	431	ILE
2	L	453	THR
2	L	469	PRO
2	L	471	PRO
2	L	489	VAL
2	L	493	ASN
2	L	503	ASN
2	L	509	GLU
2	L	511	ILE
2	L	517	ARG
2	L	529	ASP
2	L	535	ILE
2	L	548	CYS
2	L	551	ILE
2	L	561	LEU
2	L	567	ASP
2	L	569	ILE
2	L	580	SER
1	M	195	GLU
1	M	204	ASP
1	M	206	PRO
1	M	213	LEU
1	M	218	LEU
1	M	249	ASP
1	M	258	ASN
1	M	260	ASP
1	M	267	GLN
1	M	269	PRO
1	M	274	HIS
1	M	277	PHE
1	M	281	ASP
1	M	290	MET
1	M	298	ARG
1	M	300	HIS
1	M	327	HIS
1	M	354	ASP
1	M	363	ASP
1	M	366	HIS
1	M	370	PHE
1	M	373	ILE
1	M	376	VAL

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Mol	Chain	Res	Type
1	M	398	LEU
1	M	414	GLU
1	M	416	SER
1	M	422	TYR
1	M	441	GLU
1	M	454	VAL
1	M	459	LEU
1	M	461	LEU
1	M	462	GLU
1	M	475	ARG
1	M	477	LEU
1	M	480	HIS
1	M	486	MET
2	N	18	THR
2	N	21	ASP
2	N	47	LYS
2	N	59	ASP
2	N	62	LEU
2	N	66	ASP
2	N	82	ARG
2	N	85	GLN
2	N	98	ARG
2	N	108	LEU
2	N	117	ILE
2	N	120	PHE
2	N	126	LEU
2	N	127	ARG
2	N	132	THR
2	N	147	HIS
2	N	149	ASN
2	N	150	ILE
2	N	170	PRO
2	N	183	PHE
2	N	192	TYR
2	N	211	LEU
2	N	212	HIS
2	N	234	PRO
2	N	237	ILE
2	N	244	ILE
2	N	249	ARG
2	N	254	GLU
2	N	261	THR

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Mol	Chain	Res	Type
2	N	268	ASP
2	N	271	VAL
2	N	308	MET
2	N	327	LEU
2	N	335	TYR
2	N	345	ASN
2	N	357	ASP
2	N	381	LEU
2	N	384	THR
2	N	391	PHE
2	N	392	PRO
2	N	393	LEU
2	N	413	LEU
2	N	425	ASP
2	N	431	ILE
2	N	453	THR
2	N	469	PRO
2	N	471	PRO
2	N	489	VAL
2	N	493	ASN
2	N	503	ASN
2	N	509	GLU
2	N	511	ILE
2	N	517	ARG
2	N	535	ILE
2	N	551	ILE
2	N	561	LEU
2	N	567	ASP
2	N	569	ILE
2	N	578	CYS
2	N	580	SER
1	O	191	GLU
1	O	202	TRP
1	O	204	ASP
1	O	207	PHE
1	O	208	LYS
1	O	211	ASN
1	O	249	ASP
1	O	264	GLN
1	O	278	PHE
1	O	288	LEU
1	O	289	PRO

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Mol	Chain	Res	Type
1	O	290	MET
1	O	298	ARG
1	O	300	HIS
1	O	327	HIS
1	O	354	ASP
1	O	358	ARG
1	O	361	THR
1	O	363	ASP
1	O	367	LEU
1	O	373	ILE
1	O	414	GLU
1	O	416	SER
1	O	419	VAL
1	O	422	TYR
1	O	441	GLU
1	O	454	VAL
1	O	459	LEU
1	O	461	LEU
1	O	462	GLU
1	O	465	THR
1	O	469	TYR
1	O	472	ASN
1	O	474	ILE
1	O	475	ARG
1	O	477	LEU
1	O	480	HIS
1	O	492	LEU
1	O	495	LEU
2	P	9	ASP
2	P	21	ASP
2	P	41	GLU
2	P	49	GLN
2	P	61	VAL
2	P	62	LEU
2	P	66	ASP
2	P	82	ARG
2	P	85	GLN
2	P	98	ARG
2	P	108	LEU
2	P	117	ILE
2	P	119	PRO
2	P	120	PHE

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Mol	Chain	Res	Type
2	P	126	LEU
2	P	132	THR
2	P	133	LYS
2	P	147	HIS
2	P	149	ASN
2	P	150	ILE
2	P	183	PHE
2	P	192	TYR
2	P	211	LEU
2	P	212	HIS
2	P	234	PRO
2	P	237	ILE
2	P	244	ILE
2	P	249	ARG
2	P	254	GLU
2	P	268	ASP
2	P	271	VAL
2	P	308	MET
2	P	327	LEU
2	P	345	ASN
2	P	357	ASP
2	P	381	LEU
2	P	384	THR
2	P	391	PHE
2	P	392	PRO
2	P	393	LEU
2	P	413	LEU
2	P	431	ILE
2	P	453	THR
2	P	469	PRO
2	P	475	PHE
2	P	489	VAL
2	P	493	ASN
2	P	503	ASN
2	P	509	GLU
2	P	511	ILE
2	P	517	ARG
2	P	529	ASP
2	P	535	ILE
2	P	548	CYS
2	P	551	ILE
2	P	561	LEU

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Mol	Chain	Res	Type
2	P	567	ASP
2	P	569	ILE
2	P	580	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (226) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	258	ASN
1	A	264	GLN
1	A	267	GLN
1	A	268	HIS
1	A	294	GLN
1	A	308	GLN
1	A	359	ASN
1	A	372	GLN
1	A	473	ASN
1	A	480	HIS
2	B	49	GLN
2	B	70	ASN
2	B	147	HIS
2	B	187	ASN
2	B	212	HIS
2	B	241	HIS
2	B	250	ASN
2	B	280	ASN
2	B	297	HIS
2	B	326	ASN
2	B	345	ASN
2	B	360	HIS
2	B	420	GLN
2	B	448	GLN
2	B	486	ASN
2	B	493	ASN
2	B	503	ASN
2	B	584	ASN
1	C	45	GLN
1	C	60	HIS
1	C	91	GLN
1	C	137	GLN
1	C	188	GLN
1	C	211	ASN
1	C	223	HIS

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Mol	Chain	Res	Type
1	C	233	GLN
1	C	264	GLN
1	C	266	GLN
1	C	268	HIS
1	C	273	GLN
1	C	274	HIS
1	C	294	GLN
1	C	308	GLN
1	C	372	GLN
1	C	472	ASN
1	C	480	HIS
1	C	505	GLN
2	D	49	GLN
2	D	70	ASN
2	D	147	HIS
2	D	187	ASN
2	D	212	HIS
2	D	241	HIS
2	D	250	ASN
2	D	280	ASN
2	D	297	HIS
2	D	345	ASN
2	D	360	HIS
2	D	420	GLN
2	D	448	GLN
2	D	486	ASN
2	D	493	ASN
2	D	503	ASN
2	D	512	HIS
2	D	584	ASN
1	E	211	ASN
1	E	223	HIS
1	E	294	GLN
1	E	308	GLN
1	E	372	GLN
1	E	423	HIS
2	F	70	ASN
2	F	147	HIS
2	F	187	ASN
2	F	212	HIS
2	F	241	HIS
2	F	250	ASN

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Mol	Chain	Res	Type
2	F	280	ASN
2	F	297	HIS
2	F	326	ASN
2	F	345	ASN
2	F	360	HIS
2	F	420	GLN
2	F	448	GLN
2	F	486	ASN
2	F	493	ASN
2	F	503	ASN
2	F	584	ASN
1	G	188	GLN
1	G	211	ASN
1	G	215	HIS
1	G	223	HIS
1	G	264	GLN
1	G	266	GLN
1	G	268	HIS
1	G	274	HIS
1	G	294	GLN
1	G	308	GLN
1	G	359	ASN
1	G	372	GLN
1	G	423	HIS
1	G	472	ASN
1	G	480	HIS
2	H	70	ASN
2	H	147	HIS
2	H	187	ASN
2	H	212	HIS
2	H	241	HIS
2	H	250	ASN
2	H	280	ASN
2	H	297	HIS
2	H	345	ASN
2	H	360	HIS
2	H	420	GLN
2	H	448	GLN
2	H	486	ASN
2	H	493	ASN
2	H	503	ASN
2	H	584	ASN

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Mol	Chain	Res	Type
1	I	233	GLN
1	I	258	ASN
1	I	268	HIS
1	I	273	GLN
1	I	294	GLN
1	I	308	GLN
1	I	359	ASN
1	I	372	GLN
2	J	70	ASN
2	J	147	HIS
2	J	187	ASN
2	J	212	HIS
2	J	241	HIS
2	J	250	ASN
2	J	280	ASN
2	J	297	HIS
2	J	326	ASN
2	J	345	ASN
2	J	360	HIS
2	J	420	GLN
2	J	448	GLN
2	J	486	ASN
2	J	493	ASN
2	J	503	ASN
2	J	584	ASN
1	K	188	GLN
1	K	211	ASN
1	K	215	HIS
1	K	223	HIS
1	K	233	GLN
1	K	264	GLN
1	K	268	HIS
1	K	287	GLN
1	K	294	GLN
1	K	308	GLN
1	K	359	ASN
1	K	372	GLN
1	K	472	ASN
1	K	480	HIS
2	L	70	ASN
2	L	147	HIS
2	L	187	ASN

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Mol	Chain	Res	Type
2	L	212	HIS
2	L	241	HIS
2	L	250	ASN
2	L	297	HIS
2	L	326	ASN
2	L	345	ASN
2	L	360	HIS
2	L	420	GLN
2	L	448	GLN
2	L	486	ASN
2	L	493	ASN
2	L	503	ASN
2	L	584	ASN
1	M	223	HIS
1	M	233	GLN
1	M	258	ASN
1	M	264	GLN
1	M	268	HIS
1	M	273	GLN
1	M	294	GLN
1	M	308	GLN
1	M	366	HIS
1	M	372	GLN
1	M	423	HIS
2	N	49	GLN
2	N	70	ASN
2	N	147	HIS
2	N	187	ASN
2	N	212	HIS
2	N	241	HIS
2	N	250	ASN
2	N	297	HIS
2	N	326	ASN
2	N	345	ASN
2	N	360	HIS
2	N	420	GLN
2	N	448	GLN
2	N	486	ASN
2	N	493	ASN
2	N	503	ASN
2	N	584	ASN
1	O	188	GLN

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Mol	Chain	Res	Type
1	O	211	ASN
1	O	223	HIS
1	O	258	ASN
1	O	264	GLN
1	O	294	GLN
1	O	308	GLN
1	O	359	ASN
1	O	372	GLN
1	O	472	ASN
2	P	70	ASN
2	P	147	HIS
2	P	187	ASN
2	P	212	HIS
2	P	241	HIS
2	P	297	HIS
2	P	345	ASN
2	P	360	HIS
2	P	420	GLN
2	P	448	GLN
2	P	486	ASN
2	P	493	ASN
2	P	503	ASN
2	P	584	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

8 ligands are modelled in this entry.

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
3	PHE	O	509	-	11,12,12	0.80	0	14,15,15	0.49	0
3	PHE	G	509	-	11,12,12	0.63	0	14,15,15	0.64	0
3	PHE	E	509	-	11,12,12	0.76	0	14,15,15	0.64	0
3	PHE	C	509	-	11,12,12	0.70	0	14,15,15	0.66	0
3	PHE	M	509	-	11,12,12	0.67	0	14,15,15	0.54	0
3	PHE	I	509	-	11,12,12	0.62	0	14,15,15	0.50	0
3	PHE	K	509	-	11,12,12	0.68	0	14,15,15	0.51	0
3	PHE	A	509	-	11,12,12	0.89	0	14,15,15	0.65	0

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
3	PHE	O	509	-	-	4/8/8/8	0/1/1/1
3	PHE	G	509	-	-	3/8/8/8	0/1/1/1
3	PHE	E	509	-	-	4/8/8/8	0/1/1/1
3	PHE	C	509	-	-	0/8/8/8	0/1/1/1
3	PHE	M	509	-	-	3/8/8/8	0/1/1/1
3	PHE	I	509	-	-	4/8/8/8	0/1/1/1
3	PHE	K	509	-	-	1/8/8/8	0/1/1/1
3	PHE	A	509	-	-	0/8/8/8	0/1/1/1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (19) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	E	509	PHE	O-C-CA-N
3	I	509	PHE	N-CA-CB-CG

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Mol	Chain	Res	Type	Atoms
3	O	509	PHE	N-CA-CB-CG
3	O	509	PHE	C-CA-CB-CG
3	E	509	PHE	OXT-C-CA-N
3	M	509	PHE	CA-CB-CG-CD2
3	M	509	PHE	CA-CB-CG-CD1
3	I	509	PHE	CA-CB-CG-CD1
3	I	509	PHE	C-CA-CB-CG
3	I	509	PHE	CA-CB-CG-CD2
3	E	509	PHE	OXT-C-CA-CB
3	O	509	PHE	OXT-C-CA-CB
3	E	509	PHE	O-C-CA-CB
3	O	509	PHE	O-C-CA-CB
3	M	509	PHE	OXT-C-CA-N
3	G	509	PHE	O-C-CA-N
3	G	509	PHE	C-CA-CB-CG
3	G	509	PHE	OXT-C-CA-N
3	K	509	PHE	CA-CB-CG-CD2

There are no ring outliers.

8 monomers are involved in 29 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	O	509	PHE	5	0
3	G	509	PHE	2	0
3	E	509	PHE	1	0
3	C	509	PHE	2	0
3	M	509	PHE	4	0
3	I	509	PHE	2	0
3	K	509	PHE	7	0
3	A	509	PHE	6	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q < 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	318/508 (62%)	-0.06	13 (4%) 37 35	47, 84, 168, 200	0
1	C	508/508 (100%)	0.04	23 (4%) 33 32	50, 107, 181, 201	0
1	E	309/508 (60%)	0.06	16 (5%) 27 25	47, 103, 181, 201	0
1	G	309/508 (60%)	0.11	15 (4%) 29 27	54, 103, 179, 200	0
1	I	313/508 (61%)	-0.16	9 (2%) 51 50	42, 91, 164, 192	0
1	K	349/508 (68%)	0.02	12 (3%) 45 43	48, 101, 178, 201	0
1	M	321/508 (63%)	0.34	30 (9%) 8 9	51, 133, 189, 201	0
1	O	309/508 (60%)	0.16	14 (4%) 33 32	65, 112, 183, 201	0
2	B	589/589 (100%)	-0.12	17 (2%) 51 50	47, 93, 154, 201	0
2	D	589/589 (100%)	0.38	64 (10%) 5 5	56, 129, 199, 201	0
2	F	589/589 (100%)	0.08	34 (5%) 23 22	51, 104, 175, 201	0
2	H	589/589 (100%)	0.44	62 (10%) 6 6	63, 131, 188, 201	0
2	J	589/589 (100%)	-0.03	13 (2%) 62 60	57, 99, 158, 201	0
2	L	589/589 (100%)	0.47	71 (12%) 4 3	61, 139, 201, 201	0
2	N	589/589 (100%)	0.49	72 (12%) 4 3	58, 134, 192, 201	0
2	P	589/589 (100%)	0.60	85 (14%) 2 2	73, 153, 201, 201	0
All	All	7448/8776 (84%)	0.21	550 (7%) 14 14	42, 114, 190, 201	0

All (550) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	L	160	GLY	9.4
2	H	160	GLY	9.2
2	P	238	ASN	8.6
2	P	160	GLY	7.6
2	H	56	GLY	7.6

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Mol	Chain	Res	Type	RSRZ
2	D	1	MET	6.6
2	P	1	MET	6.4
2	D	227	ASN	6.3
2	J	49	GLN	6.3
2	P	202	LYS	6.2
2	D	218	PRO	6.1
1	E	285	ALA	6.1
2	P	101	PRO	5.9
1	M	209	PRO	5.9
2	L	51	ASN	5.8
2	N	498	CYS	5.8
1	A	188	GLN	5.8
2	H	1	MET	5.6
1	E	270	ALA	5.6
2	F	56	GLY	5.6
2	P	56	GLY	5.4
2	P	204	ASP	5.3
2	H	431	ILE	5.2
2	L	1	MET	5.2
2	P	177	ARG	5.2
2	F	48	GLU	5.2
2	L	54	ALA	5.2
2	P	232	SER	5.1
2	L	218	PRO	5.1
1	M	179	SER	5.1
2	P	161	THR	5.0
1	G	211	ASN	5.0
1	E	269	PRO	4.9
1	O	205	ARG	4.8
2	N	57	ALA	4.8
2	D	238	ASN	4.8
2	P	170	PRO	4.8
2	N	218	PRO	4.8
2	D	45	ILE	4.7
2	B	54	ALA	4.7
2	N	58	SER	4.7
1	A	360	GLU	4.7
2	H	50	GLY	4.7
2	P	218	PRO	4.7
1	O	206	PRO	4.6
2	N	580	SER	4.6
2	P	227	ASN	4.6

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Mol	Chain	Res	Type	RSRZ
2	N	562	GLY	4.6
1	K	362	LEU	4.6
1	C	2	ALA	4.5
1	G	202	TRP	4.5
1	C	118	SER	4.5
2	H	55	ALA	4.5
2	H	218	PRO	4.4
2	D	232	SER	4.4
2	P	100	MET	4.4
2	D	130	LYS	4.4
2	L	194	ALA	4.3
2	L	208	LYS	4.3
2	P	234	PRO	4.3
1	A	183	THR	4.2
2	H	182	LYS	4.2
2	D	100	MET	4.2
2	N	51	ASN	4.2
2	L	42	LYS	4.2
2	N	49	GLN	4.2
2	N	582	GLU	4.2
2	H	198	MET	4.1
2	F	555	GLY	4.1
2	L	99	VAL	4.1
1	M	362	LEU	4.1
2	P	107	LYS	4.1
1	I	187	LYS	4.1
2	L	162	HIS	4.1
1	G	205	ARG	4.0
2	N	579	SER	4.0
2	P	162	HIS	4.0
2	D	38	ILE	4.0
1	E	362	LEU	4.0
2	L	344	GLY	4.0
1	I	188	GLN	4.0
2	N	287	ALA	4.0
1	C	428	LYS	4.0
2	F	49	GLN	4.0
2	H	54	ALA	3.9
2	H	57	ALA	3.9
2	P	102	ASP	3.9
2	L	246	VAL	3.9
2	H	188	LYS	3.9

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Mol	Chain	Res	Type	RSRZ
2	N	50	GLY	3.9
2	L	53	LYS	3.9
2	L	219	LEU	3.9
2	L	238	ASN	3.9
2	D	57	ALA	3.9
2	L	161	THR	3.9
2	L	209	HIS	3.8
1	I	496	ASP	3.8
1	A	426	LEU	3.8
1	M	206	PRO	3.8
2	D	208	LYS	3.8
2	F	57	ALA	3.8
2	N	45	ILE	3.8
2	L	293	ASN	3.8
2	L	119	PRO	3.8
2	P	55	ALA	3.8
2	L	43	GLU	3.8
2	N	550	GLU	3.8
1	A	186	SER	3.8
2	H	99	VAL	3.8
1	I	361	THR	3.8
2	L	189	THR	3.8
2	L	255	CYS	3.7
1	M	182	SER	3.7
2	N	56	GLY	3.7
2	B	55	ALA	3.7
2	L	297	HIS	3.7
2	H	52	VAL	3.7
2	D	99	VAL	3.6
1	A	185	ILE	3.6
2	D	48	GLU	3.6
1	M	361	THR	3.6
2	P	580	SER	3.6
2	H	90	ARG	3.6
2	L	52	VAL	3.6
2	D	160	GLY	3.6
1	M	191	GLU	3.6
2	P	254	GLU	3.6
2	N	552	PHE	3.6
2	H	195	CYS	3.6
1	K	35	GLN	3.5
2	J	48	GLU	3.5

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Mol	Chain	Res	Type	RSRZ
2	D	241	HIS	3.5
2	F	202	LYS	3.5
2	P	233	MET	3.5
1	C	365	THR	3.5
1	M	176	SER	3.5
2	L	59	ASP	3.5
2	H	504	LYS	3.5
2	J	1	MET	3.5
1	C	188	GLN	3.5
2	D	293	ASN	3.5
2	H	104	LYS	3.5
2	D	131	PHE	3.5
2	N	433	ALA	3.5
2	H	232	SER	3.5
1	G	188	GLN	3.4
1	I	213	LEU	3.4
2	L	47	LYS	3.4
2	N	39	THR	3.4
2	N	499	ALA	3.4
2	L	56	GLY	3.4
2	P	57	ALA	3.4
2	P	104	LYS	3.4
1	M	180	ALA	3.4
1	G	428	LYS	3.4
1	I	402	GLN	3.4
1	C	170	LEU	3.4
2	P	589	LEU	3.4
2	D	219	LEU	3.4
2	P	179	SER	3.4
2	L	203	THR	3.3
2	H	254	GLU	3.3
2	B	49	GLN	3.3
1	M	183	THR	3.3
2	P	201	TYR	3.3
2	D	37	GLU	3.3
2	H	238	ASN	3.3
2	F	544	PHE	3.3
2	L	182	LYS	3.3
2	B	56	GLY	3.3
2	D	182	LYS	3.3
2	N	160	GLY	3.3
2	H	161	THR	3.3

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Mol	Chain	Res	Type	RSRZ
1	E	402	GLN	3.3
2	F	578	CYS	3.3
1	I	362	LEU	3.3
1	G	427	LYS	3.3
1	C	429	TRP	3.2
1	O	360	GLU	3.2
2	D	191	GLU	3.2
2	L	224	TYR	3.2
2	N	578	CYS	3.2
2	P	562	GLY	3.2
2	H	42	LYS	3.2
2	L	115	ALA	3.2
2	B	44	ILE	3.2
2	P	112	GLU	3.2
1	A	184	SER	3.2
1	K	361	THR	3.2
1	K	34	HIS	3.2
2	N	238	ASN	3.2
2	F	546	GLY	3.1
2	F	431	ILE	3.1
2	L	85	GLN	3.1
1	K	204	ASP	3.1
2	H	35	LEU	3.1
2	L	50	GLY	3.1
2	N	234	PRO	3.1
1	I	499	PRO	3.1
2	H	44	ILE	3.1
1	C	120	ALA	3.1
2	L	176	LYS	3.1
1	E	498	GLU	3.1
2	P	208	LYS	3.1
1	K	181	PHE	3.1
2	D	51	ASN	3.1
2	D	54	ALA	3.1
2	F	545	PRO	3.1
2	N	227	ASN	3.1
1	M	178	GLY	3.1
1	C	363	ASP	3.0
2	H	255	CYS	3.0
2	L	198	MET	3.0
1	A	362	LEU	3.0
2	B	48	GLU	3.0

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Mol	Chain	Res	Type	RSRZ
2	P	182	LYS	3.0
2	N	55	ALA	3.0
1	O	194	PRO	3.0
2	F	238	ASN	3.0
1	O	365	THR	3.0
2	P	453	THR	3.0
1	M	422	TYR	3.0
2	P	528	GLU	3.0
2	N	556	GLN	3.0
2	H	580	SER	3.0
2	P	188	LYS	3.0
1	M	188	GLN	3.0
2	H	62	LEU	3.0
1	K	176	SER	3.0
1	C	121	ASP	3.0
2	J	55	ALA	3.0
2	F	486	ASN	3.0
2	L	100	MET	2.9
2	D	115	ALA	2.9
1	A	425	GLY	2.9
2	D	233	MET	2.9
1	E	427	LYS	2.9
2	L	38	ILE	2.9
2	P	255	CYS	2.9
2	H	202	LYS	2.9
2	D	201	TYR	2.9
2	N	115	ALA	2.9
2	L	63	TYR	2.9
1	M	358	ARG	2.9
2	D	58	SER	2.9
2	D	64	LYS	2.9
2	L	37	GLU	2.9
2	J	56	GLY	2.9
2	F	45	ILE	2.9
2	N	1	MET	2.9
2	L	124	ALA	2.9
2	P	59	ASP	2.9
2	P	579	SER	2.9
2	H	190	LYS	2.9
2	L	35	LEU	2.9
2	N	476	GLU	2.9
2	L	179	SER	2.9

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Mol	Chain	Res	Type	RSRZ
2	N	232	SER	2.9
2	H	152	ARG	2.9
2	D	188	LYS	2.8
2	H	59	ASP	2.8
2	L	131	PHE	2.8
2	J	54	ALA	2.8
1	M	367	LEU	2.8
2	D	205	ASN	2.8
2	P	176	LYS	2.8
2	P	534	VAL	2.8
2	L	90	ARG	2.8
2	P	530	LYS	2.8
2	N	566	PRO	2.8
2	L	254	GLU	2.8
2	P	582	GLU	2.8
1	C	274	HIS	2.8
2	H	226	SER	2.8
1	I	495	LEU	2.8
1	C	18	ASP	2.8
2	N	504	LYS	2.8
2	B	212	HIS	2.8
2	H	64	LYS	2.8
2	N	211	LEU	2.8
1	G	422	TYR	2.8
2	D	49	GLN	2.7
1	C	364	ALA	2.7
2	P	295	LYS	2.7
2	D	246	VAL	2.7
2	L	247	ASN	2.7
1	K	1	MET	2.7
2	N	577	PRO	2.7
2	P	159	ILE	2.7
2	B	53	LYS	2.7
2	P	536	LYS	2.7
2	F	44	ILE	2.7
2	L	117	ILE	2.7
2	L	205	ASN	2.7
2	N	435	LYS	2.7
2	N	588	PHE	2.7
2	H	227	ASN	2.7
2	F	1	MET	2.7
2	P	498	CYS	2.7

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Mol	Chain	Res	Type	RSRZ
2	D	234	PRO	2.7
2	L	232	SER	2.7
2	D	247	ASN	2.7
2	L	55	ALA	2.7
2	N	54	ALA	2.7
1	G	275	ASP	2.7
1	E	267	GLN	2.7
2	H	560	LYS	2.7
2	B	50	GLY	2.7
2	N	219	LEU	2.7
2	N	589	LEU	2.7
2	N	161	THR	2.7
2	P	103	GLY	2.7
1	K	2	ALA	2.7
2	F	443	LYS	2.6
2	D	203	THR	2.6
2	N	46	SER	2.6
2	F	42	LYS	2.6
2	H	51	ASN	2.6
2	N	116	LYS	2.6
2	N	158	ALA	2.6
2	H	133	LYS	2.6
2	D	204	ASP	2.6
2	D	44	ILE	2.6
2	P	226	SER	2.6
2	H	159	ILE	2.6
2	L	57	ALA	2.6
1	M	282	PRO	2.6
2	F	554	ARG	2.6
2	P	246	VAL	2.6
2	L	62	LEU	2.6
1	O	361	THR	2.6
2	D	50	GLY	2.6
2	D	224	TYR	2.6
2	P	529	ASP	2.6
1	A	499	PRO	2.6
1	C	125	VAL	2.6
1	O	427	LYS	2.6
2	H	49	GLN	2.6
2	H	199	ASN	2.6
2	N	48	GLU	2.6
2	D	39	THR	2.6

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Mol	Chain	Res	Type	RSRZ
1	G	274	HIS	2.6
1	O	199	SER	2.6
2	J	57	ALA	2.6
2	J	430	ASP	2.6
1	A	361	THR	2.6
2	D	206	HIS	2.6
2	H	162	HIS	2.6
1	M	207	PHE	2.6
1	A	187	LYS	2.6
1	G	199	SER	2.6
2	H	48	GLU	2.6
2	P	164	LEU	2.6
2	H	37	GLU	2.5
2	P	205	ASN	2.5
1	C	19	GLY	2.5
2	F	580	SER	2.5
2	P	190	LYS	2.5
1	E	366	HIS	2.5
2	P	241	HIS	2.5
2	P	294	GLY	2.5
2	P	237	ILE	2.5
2	N	44	ILE	2.5
2	H	246	VAL	2.5
2	P	209	HIS	2.5
2	P	499	ALA	2.5
2	B	498	CYS	2.5
2	F	47	LYS	2.5
2	L	190	LYS	2.5
2	P	54	ALA	2.5
2	N	40	SER	2.5
1	M	202	TRP	2.5
1	O	314	TRP	2.5
1	E	363	ASP	2.5
1	M	186	SER	2.5
2	F	579	SER	2.5
2	H	63	TYR	2.5
2	L	342	GLY	2.5
2	F	100	MET	2.5
2	H	153	LYS	2.5
2	P	221	PRO	2.5
2	D	498	CYS	2.5
1	M	365	THR	2.5

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Mol	Chain	Res	Type	RSRZ
2	P	219	LEU	2.5
2	N	534	VAL	2.4
2	P	231	LEU	2.4
1	C	422	TYR	2.4
2	L	295	LYS	2.4
1	O	363	ASP	2.4
2	H	170	PRO	2.4
1	G	362	LEU	2.4
1	M	272	ASP	2.4
2	N	206	HIS	2.4
1	M	274	HIS	2.4
2	H	498	CYS	2.4
2	L	202	LYS	2.4
2	B	51	ASN	2.4
2	D	529	ASP	2.4
2	H	443	LYS	2.4
2	J	40	SER	2.4
2	H	76	CYS	2.4
2	N	52	VAL	2.4
2	D	46	SER	2.4
1	M	360	GLU	2.4
2	J	578	CYS	2.4
2	B	238	ASN	2.4
2	D	159	ILE	2.4
2	D	52	VAL	2.3
2	H	534	VAL	2.3
2	N	42	LYS	2.3
2	P	40	SER	2.3
2	P	560	LYS	2.3
2	N	53	LYS	2.3
2	D	579	SER	2.3
2	D	170	PRO	2.3
2	F	499	ALA	2.3
2	N	179	SER	2.3
2	N	177	ARG	2.3
2	N	441	ASN	2.3
2	J	44	ILE	2.3
2	N	202	LYS	2.3
2	F	433	ALA	2.3
1	K	428	LYS	2.3
1	O	362	LEU	2.3
2	P	435	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
2	H	582	GLU	2.3
2	F	536	LYS	2.3
2	D	235	PRO	2.3
2	H	179	SER	2.3
2	N	432	SER	2.3
2	N	233	MET	2.3
1	E	495	LEU	2.3
2	B	160	GLY	2.3
2	L	22	GLU	2.3
2	L	580	SER	2.3
1	K	429	TRP	2.3
1	C	111	LYS	2.3
2	H	97	LYS	2.3
2	P	587	PRO	2.3
2	N	226	SER	2.3
2	F	547	ARG	2.3
1	E	297	LYS	2.3
2	D	56	GLY	2.3
2	D	185	PRO	2.3
2	L	296	SER	2.3
2	N	201	TYR	2.3
2	P	556	GLN	2.3
2	N	554	ARG	2.2
2	F	234	PRO	2.2
1	E	497	ALA	2.2
2	F	55	ALA	2.2
2	F	498	CYS	2.2
2	L	188	LYS	2.2
2	L	227	ASN	2.2
1	A	206	PRO	2.2
2	D	279	GLU	2.2
2	D	580	SER	2.2
1	M	187	LYS	2.2
2	P	130	LYS	2.2
2	H	273	MET	2.2
2	P	256	THR	2.2
2	D	43	GLU	2.2
2	P	249	ARG	2.2
2	P	169	GLY	2.2
2	P	293	ASN	2.2
2	L	46	SER	2.2
1	E	204	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
1	O	191	GLU	2.2
2	H	470	LEU	2.2
2	L	241	HIS	2.2
2	L	177	ARG	2.2
2	L	192	TYR	2.2
2	D	189	THR	2.2
2	F	414	THR	2.2
2	L	18	THR	2.2
1	M	474	ILE	2.2
2	P	117	ILE	2.2
1	O	402	GLN	2.2
2	N	470	LEU	2.2
2	N	549	ALA	2.2
2	P	443	LYS	2.2
1	M	227	LEU	2.2
2	D	207	LEU	2.2
2	N	425	ASP	2.2
2	N	414	THR	2.2
1	E	271	ARG	2.2
1	G	424	GLN	2.2
1	C	112	TRP	2.1
2	P	58	SER	2.1
2	N	59	ASP	2.1
2	N	295	LYS	2.1
2	N	555	GLY	2.1
2	F	530	LYS	2.1
1	C	508	ALA	2.1
1	C	360	GLU	2.1
1	E	206	PRO	2.1
1	M	203	ARG	2.1
2	B	57	ALA	2.1
2	N	565	HIS	2.1
2	D	229	VAL	2.1
2	L	237	ILE	2.1
2	P	235	PRO	2.1
2	D	184	LYS	2.1
2	D	190	LYS	2.1
2	L	97	LYS	2.1
2	H	43	GLU	2.1
2	J	293	ASN	2.1
2	P	105	ILE	2.1
2	L	120	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
2	D	161	THR	2.1
2	P	189	THR	2.1
2	N	100	MET	2.1
2	P	90	ARG	2.1
2	D	55	ALA	2.1
2	F	476	GLU	2.1
1	M	423	HIS	2.1
2	D	198	MET	2.1
2	P	239	GLY	2.1
2	P	414	THR	2.1
1	G	206	PRO	2.1
1	M	184	SER	2.1
2	F	565	HIS	2.1
1	M	364	ALA	2.1
2	N	215	GLU	2.1
1	C	402	GLN	2.1
2	B	1	MET	2.1
2	N	486	ASN	2.1
2	B	232	SER	2.1
2	D	296	SER	2.1
2	P	178	PRO	2.1
1	G	429	TRP	2.0
1	K	250	ASN	2.0
2	H	53	LYS	2.0
2	N	443	LYS	2.0
2	H	148	GLN	2.0
2	P	49	GLN	2.0
2	B	431	ILE	2.0
1	C	273	GLN	2.0
1	O	195	GLU	2.0
1	G	204	ASP	2.0
2	H	7	LYS	2.0
2	P	224	TYR	2.0
2	D	152	ARG	2.0
2	P	555	GLY	2.0
2	L	256	THR	2.0
1	C	113	ILE	2.0
2	J	431	ILE	2.0
2	P	22	GLU	2.0
2	L	130	LYS	2.0
2	H	156	LEU	2.0

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
3	PHE	C	509	12/12	0.87	0.44	81,83,172,174	0
3	PHE	M	509	12/12	0.91	0.27	96,99,201,201	0
3	PHE	E	509	12/12	0.92	0.40	68,71,201,201	0
3	PHE	A	509	12/12	0.94	0.32	90,92,129,130	0
3	PHE	K	509	12/12	0.95	0.34	82,83,189,189	0
3	PHE	G	509	12/12	0.95	0.33	81,86,201,201	0
3	PHE	O	509	12/12	0.95	0.38	82,84,201,201	0
3	PHE	I	509	12/12	0.96	0.23	64,69,201,201	0

6.5 Other polymers [i](#)

There are no such residues in this entry.