Full wwPDB EM Validation Report ⓘ

Nov 9, 2022 – 03:56 pm GMT

PDB ID	:	7Q56
EMDB ID	:	EMD-13827
Title	:	Single Particle Cryo-EM structure of photosynthetic A8B8 glyceraldehyde-3-phosphate dehydrogenase (minor conformer) from Spinacia oleracea.
Authors	:	Marotta, R.; Fermani, S.; Sparla, F.; Trost, P.; Del Giudice, A.
Deposited on	:	2021-11-02
Resolution	:	7.10 Å(reported)
Based on initial model	:	2PKQ

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

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

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

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

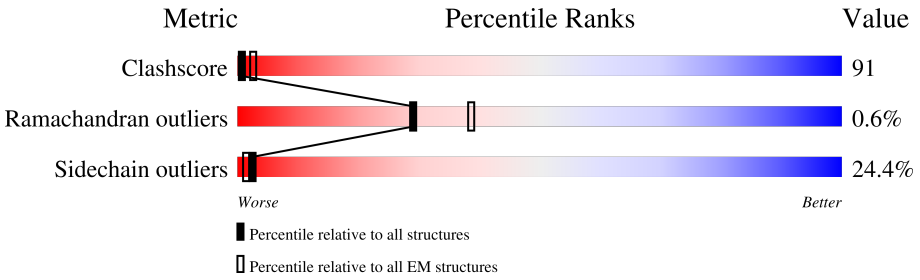
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 7.10 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	368	13% 64% 23%
1	C	368	12% 70% 17%
1	E	368	17% 64% 19%
1	G	368	14% 64% 21%
1	I	368	15% 62% 23%
1	K	368	11% 71% 17%
1	O	368	16% 64% 20%
1	Q	368	13% 68% 18%

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Mol	Chain	Length	Quality of chain
2	B	337	11% 77% 12%
2	D	337	10% 69% 20%
2	F	337	12% 72% 16%
2	H	337	15% 67% 18%
2	J	337	10% 76% 14%
2	L	337	12% 68% 20%
2	P	337	12% 73% 16%
2	R	337	13% 70% 16%

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 42608 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	I	368	Total	C	N	O	S	0	0
			2694	1700	473	510	11		
1	K	368	Total	C	N	O	S	0	0
			2694	1700	473	510	11		
1	A	368	Total	C	N	O	S	0	0
			2694	1700	473	510	11		
1	C	368	Total	C	N	O	S	0	0
			2694	1700	473	510	11		
1	Q	368	Total	C	N	O	S	0	0
			2694	1700	473	510	11		
1	O	368	Total	C	N	O	S	0	0
			2694	1700	473	510	11		
1	G	368	Total	C	N	O	S	0	0
			2694	1700	473	510	11		
1	E	368	Total	C	N	O	S	0	0
			2694	1700	473	510	11		

- Molecule 2 is a protein called Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	J	337	Total	C	N	O	S	0	0
			2544	1600	445	488	11		
2	L	337	Total	C	N	O	S	0	0
			2544	1600	445	488	11		
2	B	337	Total	C	N	O	S	0	0
			2544	1600	445	488	11		
2	D	337	Total	C	N	O	S	0	0
			2544	1600	445	488	11		
2	R	337	Total	C	N	O	S	0	0
			2544	1600	445	488	11		
2	P	337	Total	C	N	O	S	0	0
			2544	1600	445	488	11		
2	H	337	Total	C	N	O	S	0	0
			2544	1600	445	488	11		

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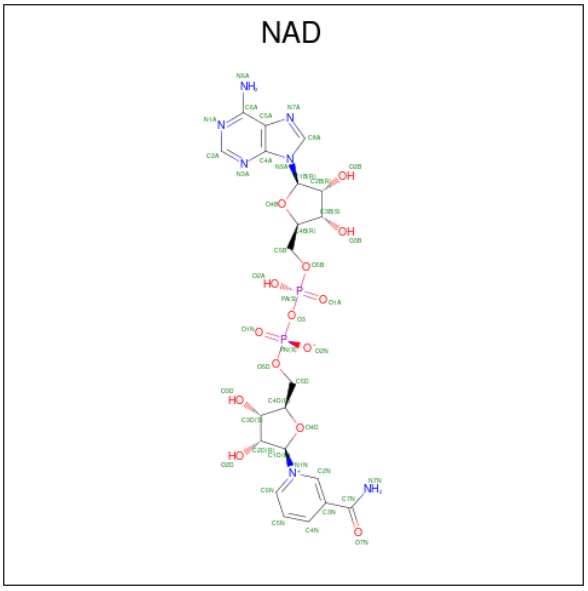
Mol	Chain	Residues	Atoms					AltConf	Trace
2	F	337	Total	C	N	O	S	0	0
			2544	1600	445	488	11		

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
J	336	ALA	-	insertion	UNP P19866
L	336	ALA	-	insertion	UNP P19866
B	336	ALA	-	insertion	UNP P19866
D	336	ALA	-	insertion	UNP P19866
R	336	ALA	-	insertion	UNP P19866
P	336	ALA	-	insertion	UNP P19866
H	336	ALA	-	insertion	UNP P19866
F	336	ALA	-	insertion	UNP P19866

- Molecule 3 is NICOTINAMIDE-ADENINE-DINUCLEOTIDE (three-letter code: NAD) (formula: $C_{21}H_{27}N_7O_{14}P_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
3	J	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	K	1	Total	C	N	O	P	0
			88	42	14	28	4	
3	K	1	Total	C	N	O	P	0
			88	42	14	28	4	
3	L	1	Total	C	N	O	P	0
			44	21	7	14	2	

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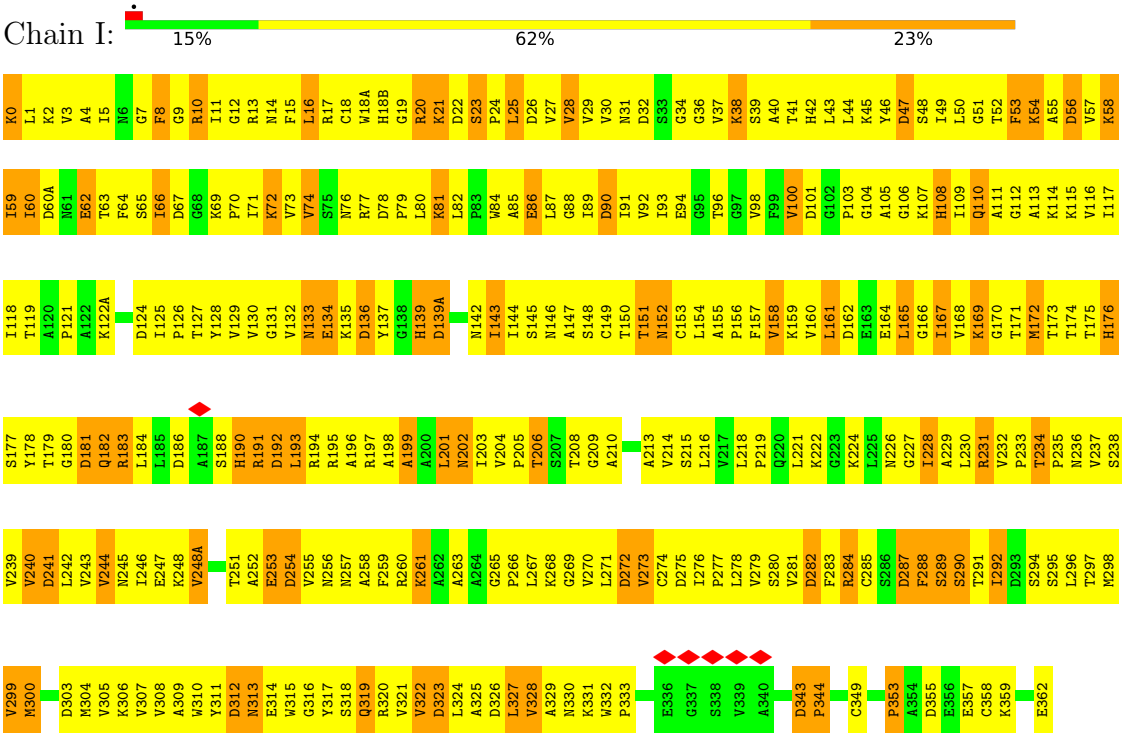
Mol	Chain	Residues	Atoms					AltConf
3	A	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	B	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	C	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	D	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	Q	1	Total	C	N	O	P	0
			88	42	14	28	4	
3	Q	1	Total	C	N	O	P	0
			88	42	14	28	4	
3	R	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	O	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	P	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	G	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	H	1	Total	C	N	O	P	0
			44	21	7	14	2	
3	F	1	Total	C	N	O	P	0
			44	21	7	14	2	

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

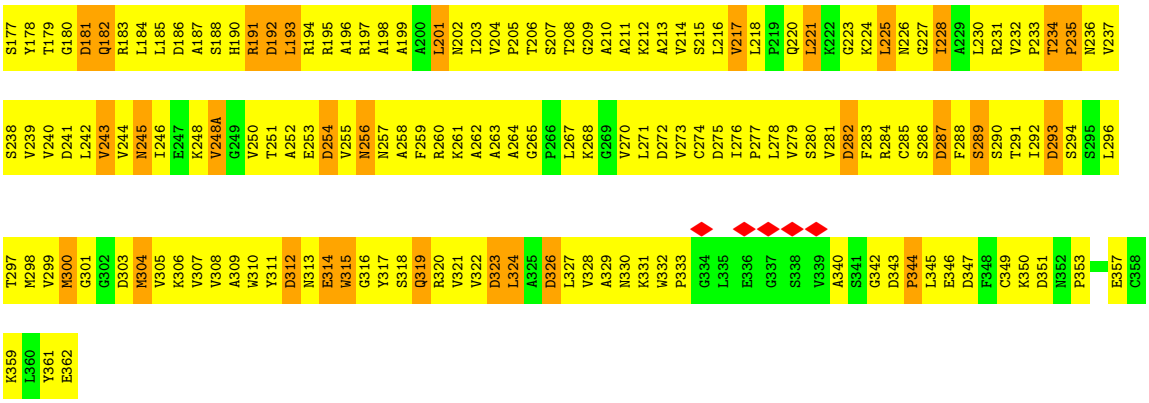
• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

Chain I:



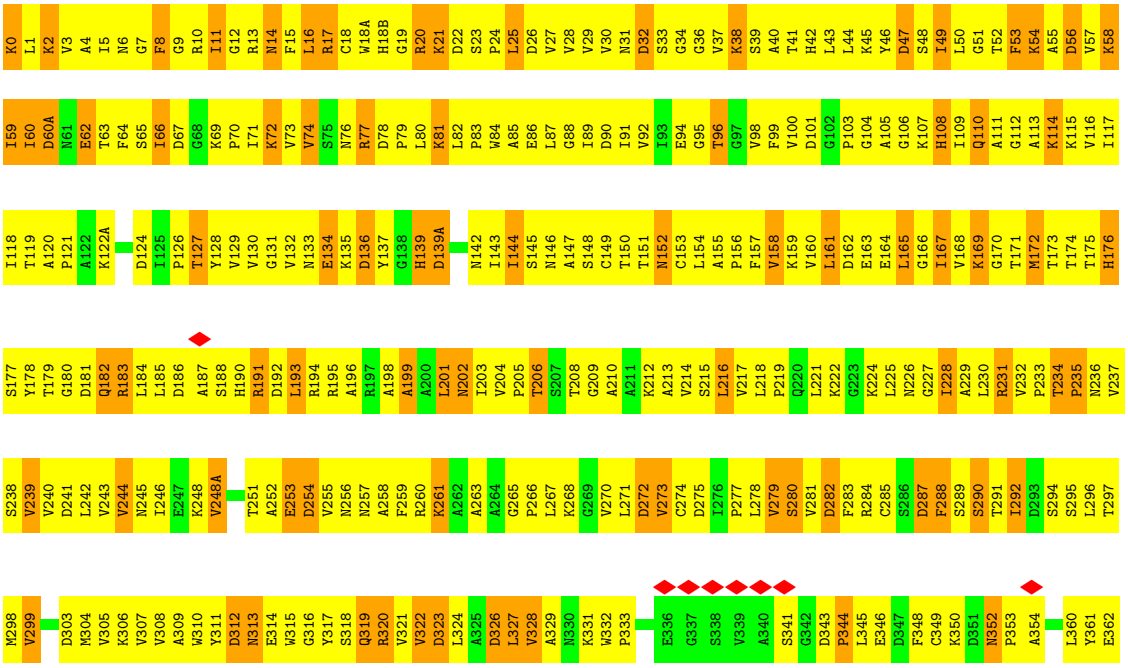
• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

Chain K:



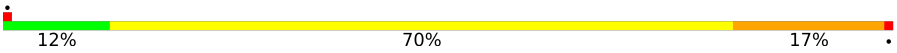
• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

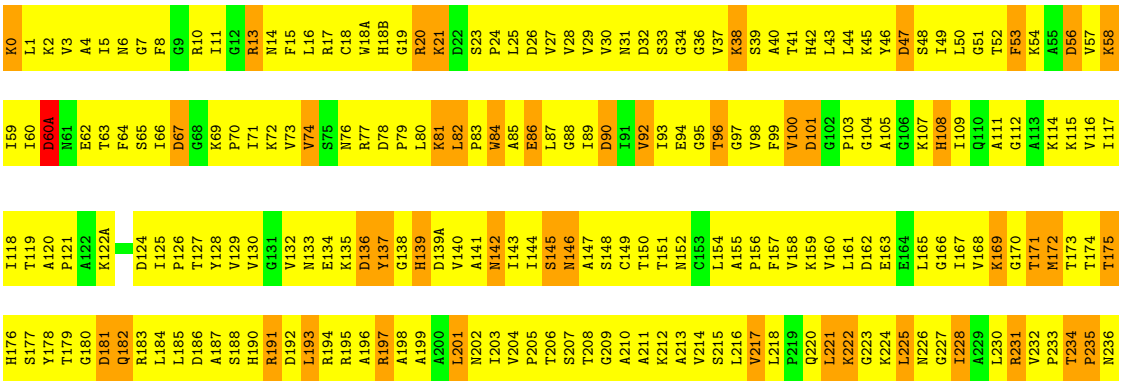
Chain A:

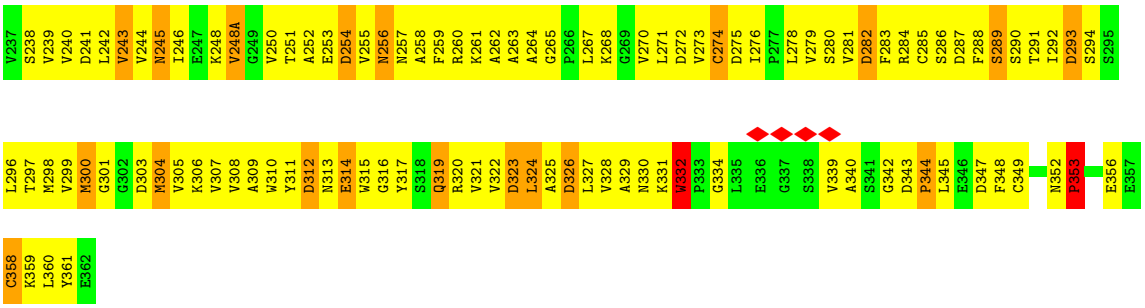


• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

Chain C:

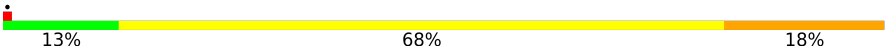


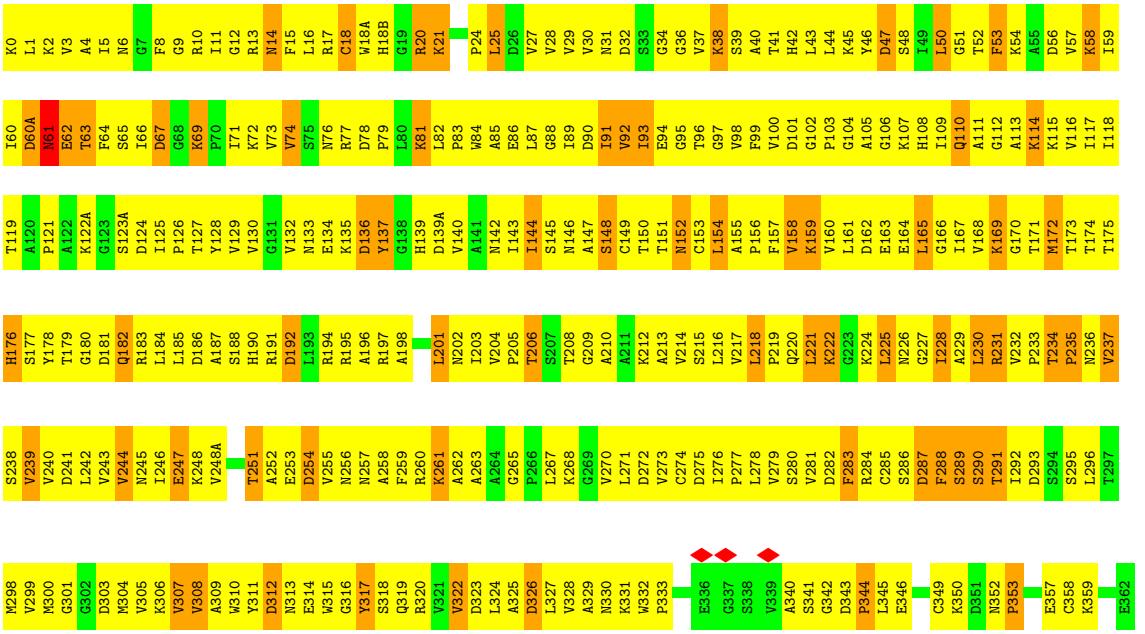




• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

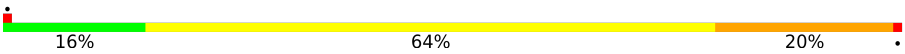
Chain Q:

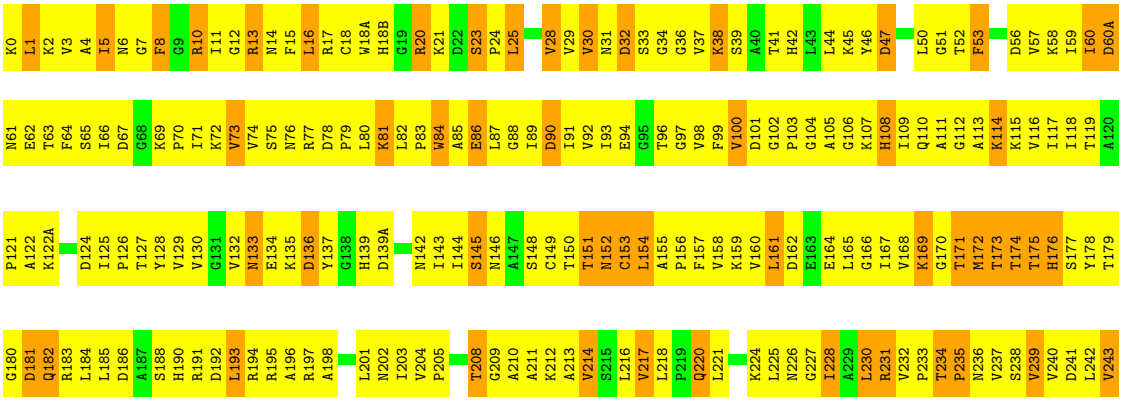


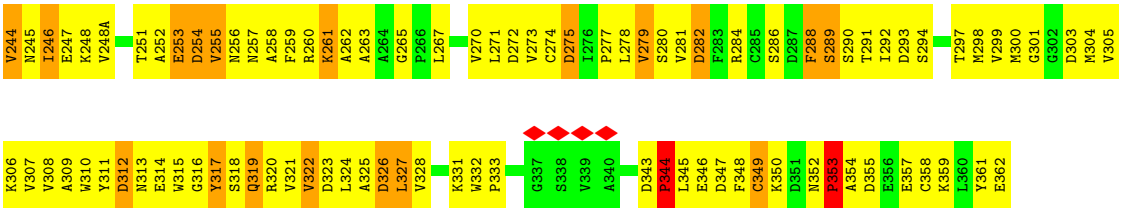


• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

Chain O:

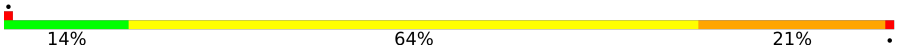


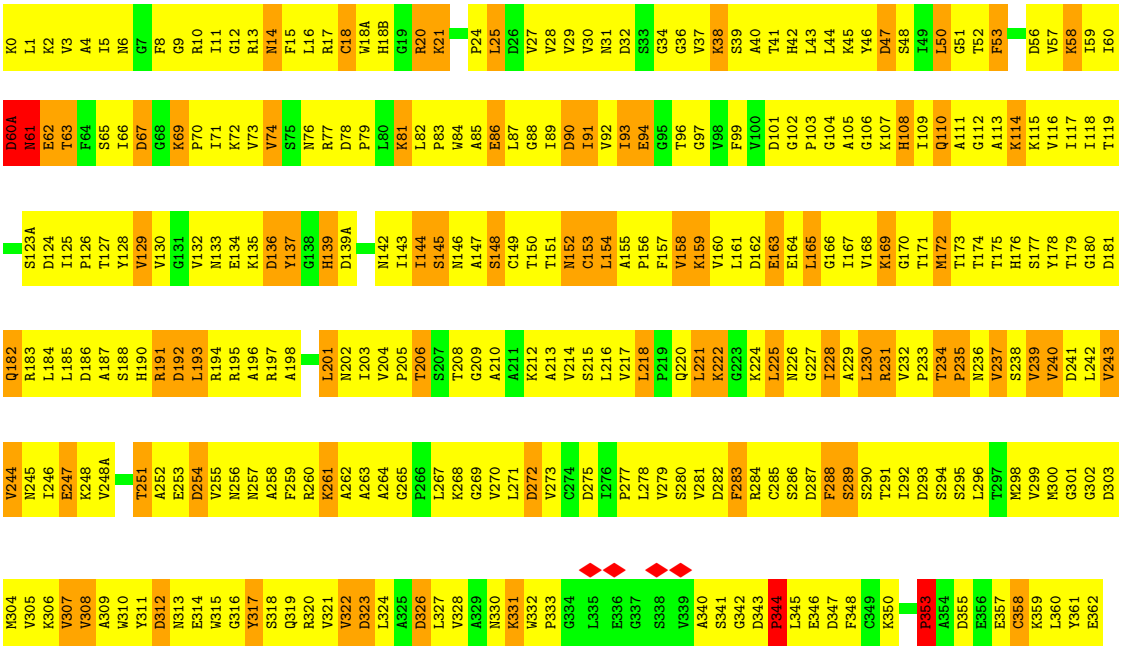




• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

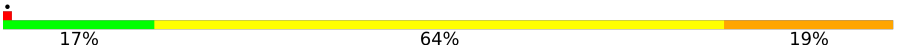
Chain G:

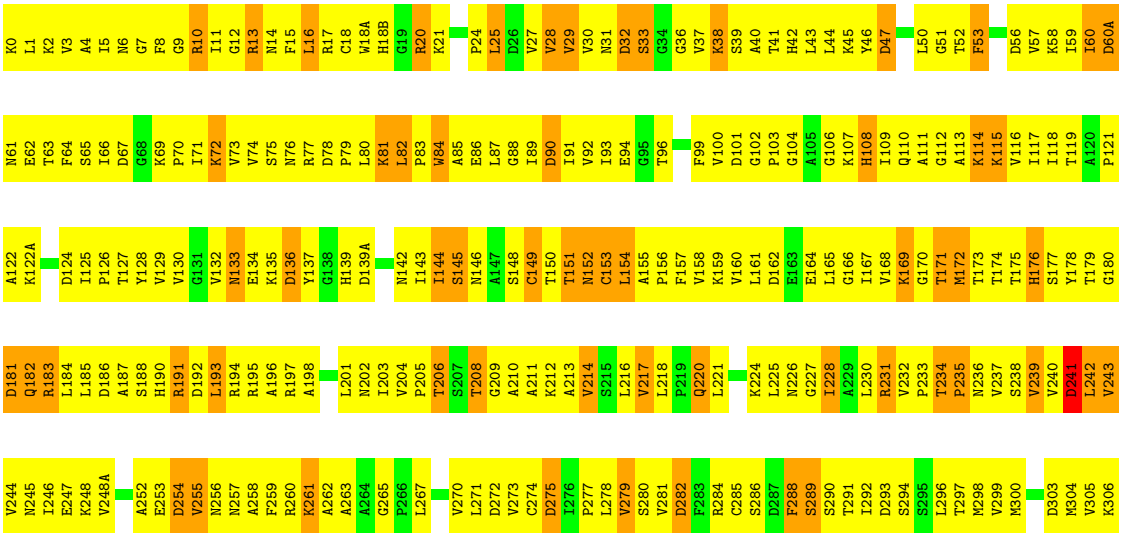


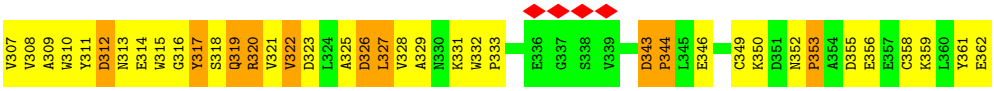


• Molecule 1: Glyceraldehyde-3-phosphate dehydrogenase B, chloroplastic

Chain E:

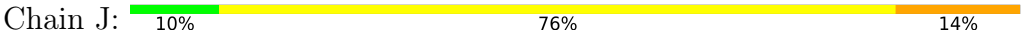


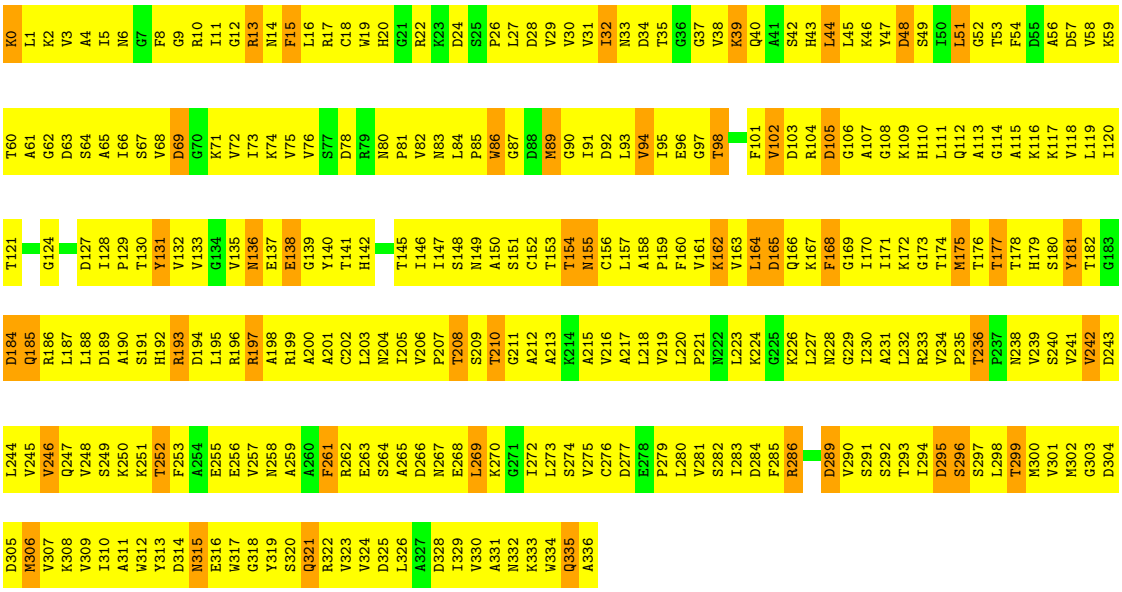




• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic

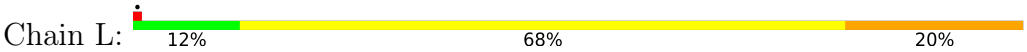
Chain J:

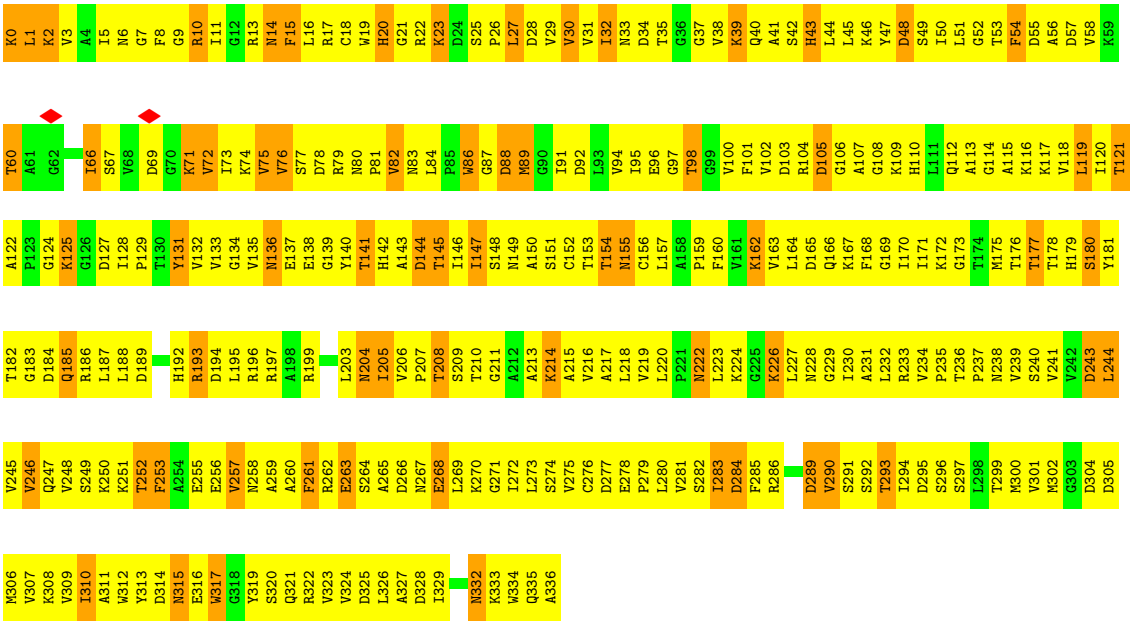




• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic

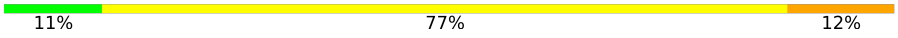
Chain L:

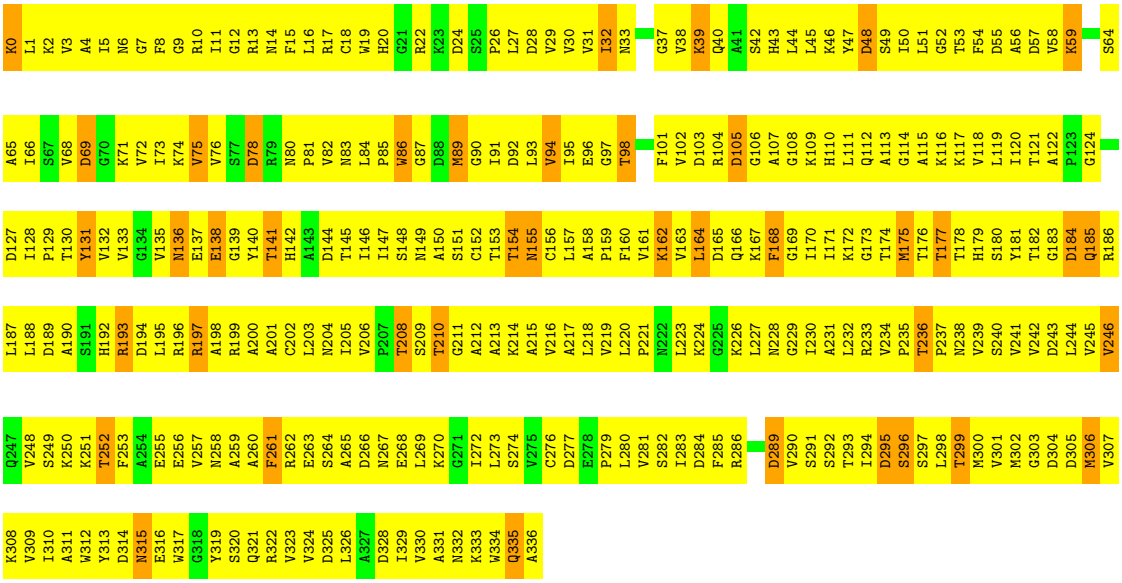




• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic

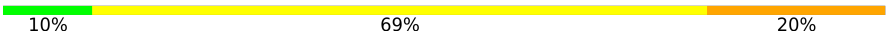
Chain B:

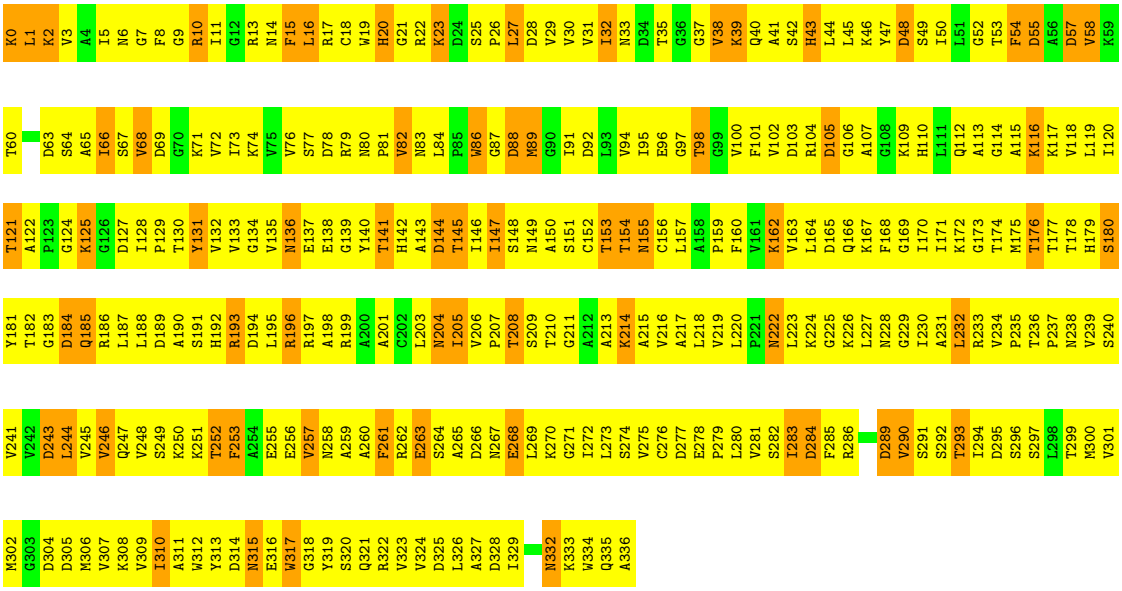




• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic

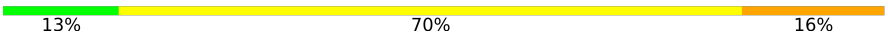
Chain D:

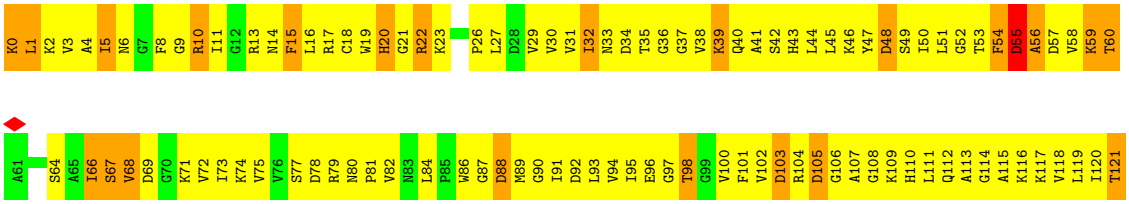


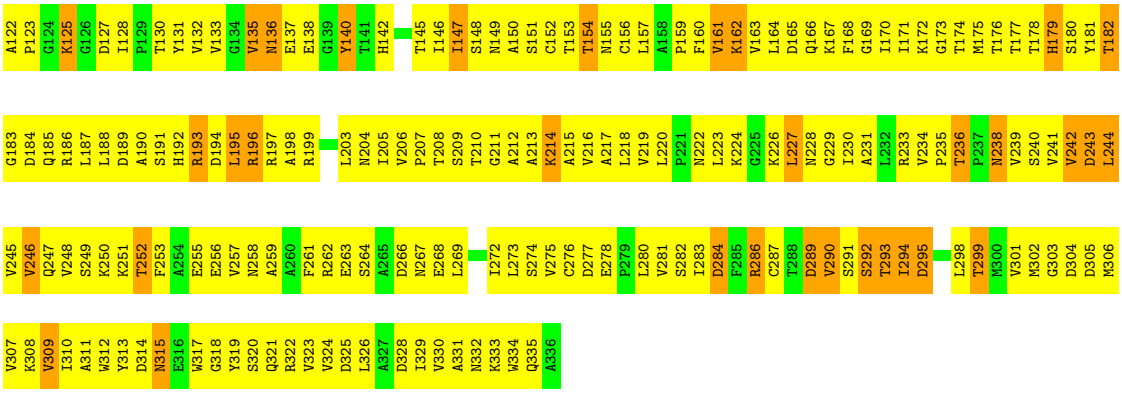


• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic

Chain R:

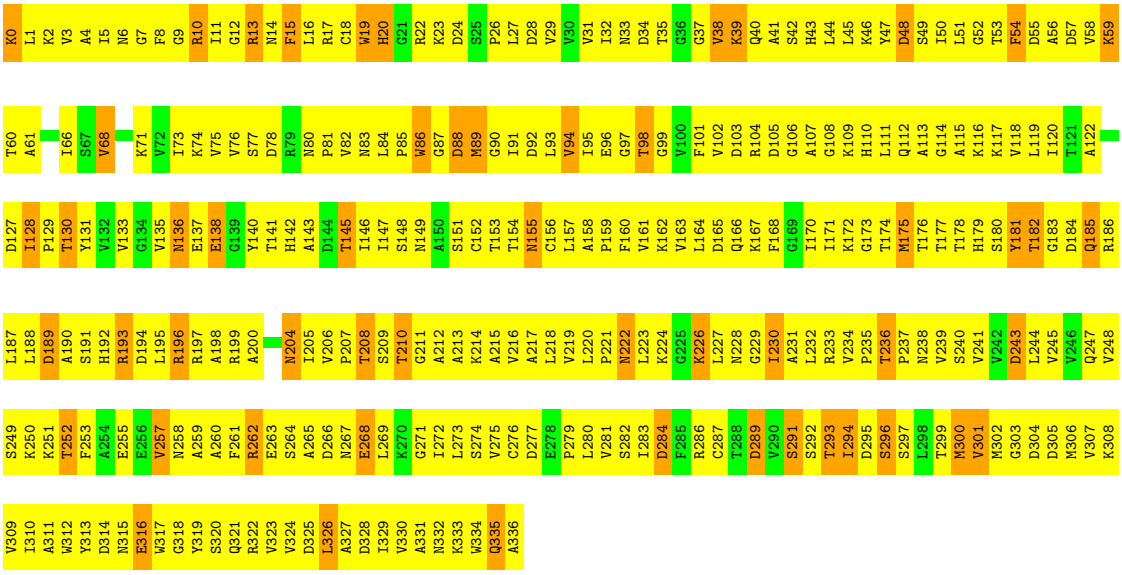






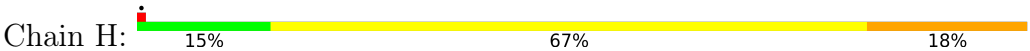
• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic

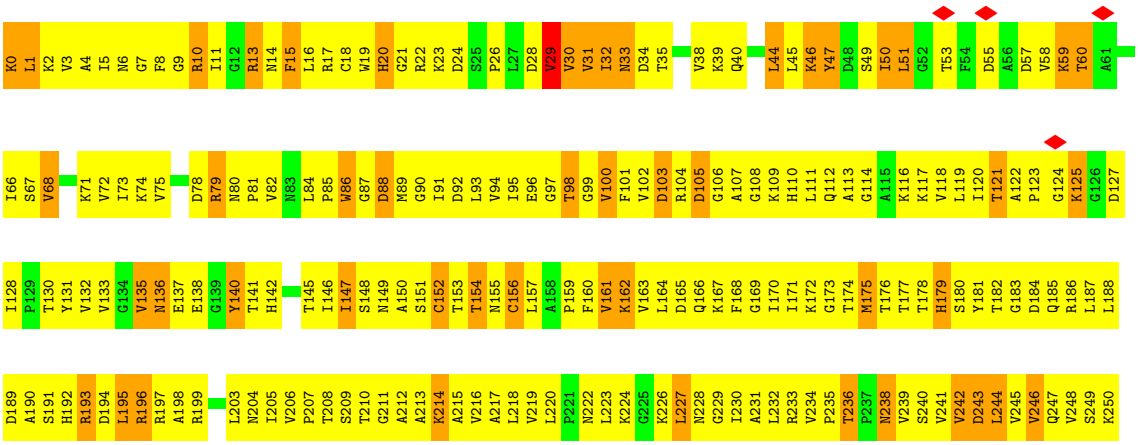
Chain P:

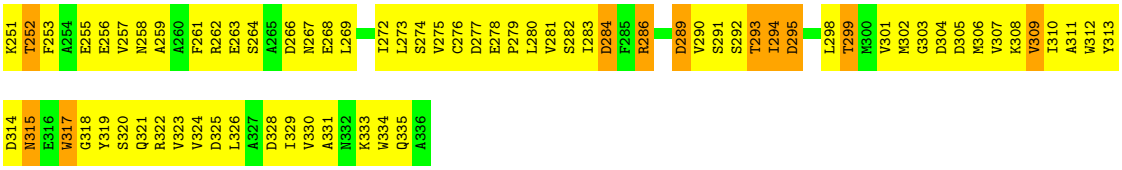


• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic

Chain H:

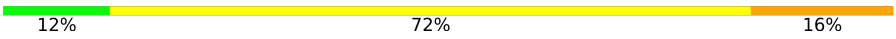


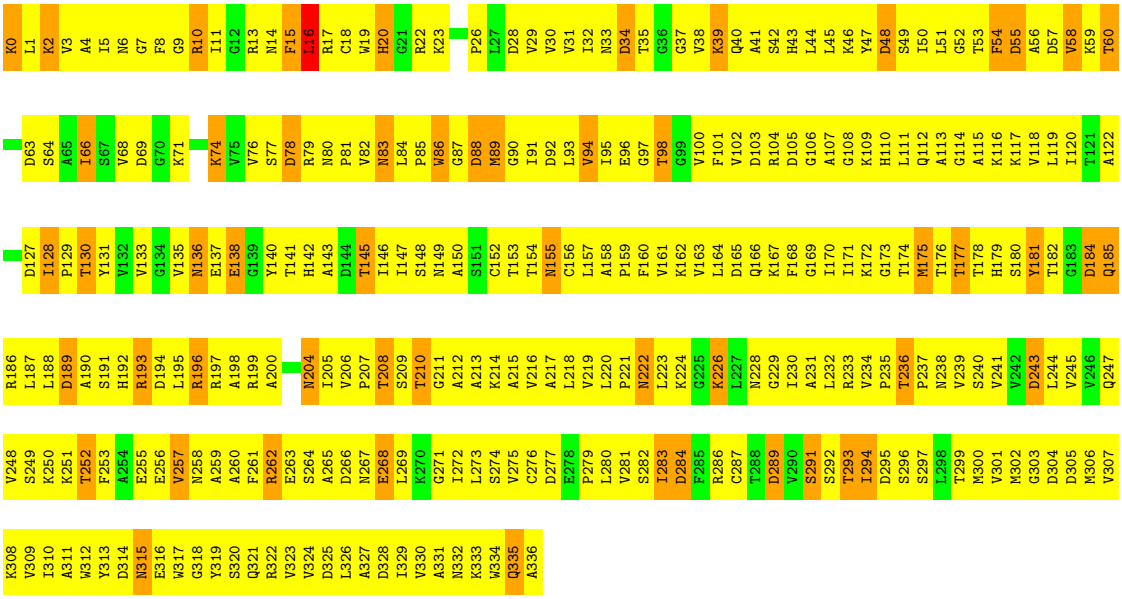




• Molecule 2: Glyceraldehyde-3-phosphate dehydrogenase A, chloroplastic

Chain F:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	10768	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	42	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.051	Depositor
Minimum map value	-0.018	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.0125	Depositor
Map size (Å)	363.0, 363.0, 363.0	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.21, 1.21, 1.21	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: NAD

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	0.40	0/2739	0.56	2/3726 (0.1%)
1	C	0.38	0/2739	0.59	2/3726 (0.1%)
1	E	0.39	1/2739 (0.0%)	0.54	2/3726 (0.1%)
1	G	0.39	0/2739	0.57	2/3726 (0.1%)
1	I	0.39	0/2739	0.57	2/3726 (0.1%)
1	K	0.39	0/2739	0.57	2/3726 (0.1%)
1	O	0.37	0/2739	0.54	2/3726 (0.1%)
1	Q	0.39	0/2739	0.57	2/3726 (0.1%)
2	B	0.36	0/2585	0.53	0/3509
2	D	0.36	0/2585	0.53	0/3509
2	F	0.36	0/2585	0.54	1/3509 (0.0%)
2	H	0.40	0/2585	0.52	0/3509
2	J	0.37	0/2585	0.53	0/3509
2	L	0.38	0/2585	0.53	0/3509
2	P	0.37	0/2585	0.53	0/3509
2	R	0.36	0/2585	0.52	0/3509
All	All	0.38	1/42592 (0.0%)	0.55	17/57880 (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
1	A	0	1
1	C	0	1
1	I	0	2
1	O	0	1
2	P	0	1
All	All	0	6

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	241	ASP	CA-CB	-5.87	1.41	1.53

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	344	PRO	N-CA-CB	7.02	111.73	103.30
1	O	353	PRO	N-CA-CB	6.94	111.63	103.30
1	C	353	PRO	N-CA-CB	6.79	111.45	103.30
2	F	16	LEU	CA-CB-CG	-6.72	99.85	115.30
1	E	344	PRO	N-CA-CB	6.68	111.31	103.30
1	G	353	PRO	N-CA-CB	6.60	111.22	103.30
1	O	344	PRO	N-CA-CB	6.46	111.06	103.30
1	A	344	PRO	N-CA-CB	6.43	111.01	103.30
1	Q	344	PRO	N-CA-CB	6.42	111.00	103.30
1	G	344	PRO	N-CA-CB	5.88	110.35	103.30
1	E	353	PRO	N-CA-CB	5.83	110.30	103.30
1	K	344	PRO	N-CA-CB	5.69	110.13	103.30
1	I	353	PRO	N-CA-CB	5.67	110.11	103.30
1	K	353	PRO	N-CA-CB	5.58	109.99	103.30
1	Q	353	PRO	N-CA-CB	5.56	109.97	103.30
1	I	344	PRO	N-CA-CB	5.54	109.95	103.30
1	A	353	PRO	N-CA-CB	5.33	109.70	103.30

There are no chirality outliers.

All (6) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	199	ALA	Peptide
1	C	332	TRP	Peptide
1	I	199	ALA	Peptide
1	I	240	VAL	Peptide
1	O	174	THR	Peptide
2	P	61	ALA	Peptide

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	2694	0	2680	534	0
1	C	2694	0	2681	556	0
1	E	2694	0	2681	494	0
1	G	2694	0	2680	541	0
1	I	2694	0	2681	502	0
1	K	2694	0	2681	540	0
1	O	2694	0	2681	507	0
1	Q	2694	0	2680	522	0
2	B	2544	0	2578	525	0
2	D	2544	0	2579	476	0
2	F	2544	0	2580	510	0
2	H	2544	0	2580	503	0
2	J	2544	0	2580	520	0
2	L	2544	0	2580	527	0
2	P	2544	0	2580	482	0
2	R	2544	0	2580	456	0
3	A	44	0	25	10	0
3	B	44	0	24	12	0
3	C	44	0	25	11	0
3	D	44	0	25	8	0
3	F	44	0	25	9	0
3	G	44	0	25	11	0
3	H	44	0	25	8	0
3	J	44	0	25	10	0
3	K	88	0	49	18	0
3	L	44	0	25	14	0
3	O	44	0	25	14	0
3	P	44	0	25	9	0
3	Q	88	0	49	19	0
3	R	44	0	25	7	0
All	All	42608	0	42479	7766	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 91.

All (7766) 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:R:67:SER:HB3	2:R:72:VAL:CG2	1.39	1.51
2:R:67:SER:CB	2:R:72:VAL:HG22	1.36	1.51
2:H:31:VAL:HG23	2:H:74:LYS:CE	1.45	1.45
2:L:31:VAL:CA	2:L:74:LYS:O	1.66	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:34:ASP:N	2:H:75:VAL:HG23	1.40	1.33
2:F:56:ALA:HB1	2:F:69:ASP:OD1	1.16	1.25
2:L:32:ILE:O	2:L:75:VAL:HG23	1.26	1.24
2:H:31:VAL:HG22	2:H:74:LYS:CB	1.67	1.24
2:H:32:ILE:O	2:H:75:VAL:HA	1.36	1.23
2:H:17:ARG:CD	2:H:51:LEU:HD12	1.71	1.20
2:L:32:ILE:HG22	2:L:75:VAL:CB	1.73	1.18
2:H:32:ILE:O	2:H:75:VAL:CA	1.92	1.18
2:H:31:VAL:CG2	2:H:74:LYS:CD	2.23	1.15
2:L:32:ILE:HG22	2:L:75:VAL:CG2	1.77	1.15
2:L:32:ILE:O	2:L:75:VAL:CG2	1.95	1.15
2:H:2:LYS:HZ1	2:H:30:VAL:HG21	1.05	1.14
2:H:35:THR:OG1	2:H:79:ARG:NH2	1.80	1.13
2:L:32:ILE:C	2:L:75:VAL:HG23	1.69	1.13
2:H:17:ARG:HD3	2:H:51:LEU:CD1	1.77	1.13
2:H:32:ILE:O	2:H:74:LYS:O	1.63	1.13
2:R:67:SER:HA	2:R:72:VAL:HA	1.29	1.12
2:L:32:ILE:HG22	2:L:75:VAL:HB	1.22	1.12
2:H:31:VAL:HG23	2:H:74:LYS:HE3	1.24	1.12
2:F:38:VAL:HG11	2:F:64:SER:HA	1.12	1.11
2:L:32:ILE:H	2:L:75:VAL:HA	1.10	1.11
2:L:31:VAL:CG1	2:L:74:LYS:O	1.98	1.11
2:H:32:ILE:N	2:H:74:LYS:O	1.82	1.10
2:H:31:VAL:HG23	2:H:74:LYS:CD	1.81	1.10
2:L:32:ILE:CG2	2:L:75:VAL:CG2	2.30	1.10
2:H:31:VAL:HG22	2:H:74:LYS:HB2	1.16	1.09
2:H:34:ASP:N	2:H:75:VAL:CG2	2.15	1.09
2:H:31:VAL:CG2	2:H:74:LYS:HD2	1.81	1.09
1:G:278:LEU:HD21	2:H:47:TYR:CE2	1.88	1.08
2:H:2:LYS:NZ	2:H:30:VAL:HG21	1.68	1.08
1:G:281:VAL:HG11	2:H:49:SER:HA	1.34	1.07
2:L:42:SER:HB3	2:L:66:ILE:CD1	1.85	1.07
2:L:31:VAL:HA	2:L:74:LYS:O	0.91	1.06
2:H:31:VAL:CG2	2:H:74:LYS:CE	2.32	1.06
2:F:56:ALA:CB	2:F:69:ASP:OD1	2.02	1.05
2:H:34:ASP:H	2:H:75:VAL:CG2	1.69	1.05
2:H:35:THR:CB	2:H:79:ARG:HH21	1.70	1.05
2:F:46:LYS:HD2	2:F:58:VAL:HG13	1.38	1.05
2:L:31:VAL:CB	2:L:74:LYS:O	2.05	1.04
2:H:17:ARG:NH1	2:H:51:LEU:HB3	1.74	1.03
2:H:31:VAL:CG2	2:H:74:LYS:HB2	1.89	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:38:VAL:HG11	2:F:64:SER:CA	1.89	1.02
2:L:30:VAL:O	2:L:74:LYS:N	1.92	1.01
1:C:133:ASN:HD22	1:C:217:VAL:HG11	1.26	1.00
2:L:31:VAL:HG13	2:L:74:LYS:O	1.56	1.00
1:G:278:LEU:CD2	2:H:47:TYR:CE2	2.45	0.99
2:H:17:ARG:HD3	2:H:51:LEU:HD12	1.02	0.99
1:K:133:ASN:HD22	1:K:217:VAL:HG11	1.27	0.99
1:O:328:VAL:HA	1:O:331:LYS:HB2	1.46	0.98
2:H:187:LEU:HB2	1:E:184:LEU:HB2	1.44	0.97
2:D:57:ASP:O	2:D:69:ASP:N	1.98	0.97
2:R:66:ILE:O	2:R:72:VAL:CG1	2.15	0.95
2:H:34:ASP:H	2:H:75:VAL:HG23	1.17	0.95
1:G:176:HIS:HB3	1:G:231:ARG:HA	1.47	0.94
2:L:39:LYS:HZ3	2:L:40:GLN:H	1.13	0.93
1:O:130:VAL:HA	1:O:134:GLU:HB3	1.51	0.93
1:E:130:VAL:HA	1:E:134:GLU:HB3	1.51	0.92
2:F:170:ILE:HA	2:F:248:VAL:HA	1.52	0.92
2:H:16:LEU:HD13	2:H:45:LEU:HD11	1.50	0.91
2:R:67:SER:HB2	2:R:72:VAL:HG22	1.50	0.91
2:R:66:ILE:O	2:R:72:VAL:HG13	1.69	0.90
2:P:170:ILE:HA	2:P:248:VAL:HA	1.51	0.90
2:H:34:ASP:HB3	2:H:75:VAL:HG21	1.53	0.90
1:Q:176:HIS:HB3	1:Q:231:ARG:HA	1.53	0.90
1:G:278:LEU:HD21	2:H:47:TYR:HE2	1.36	0.90
1:E:115:LYS:HA	1:E:142:ASN:HB3	1.54	0.89
1:C:265:GLY:O	1:C:268:LYS:NZ	2.06	0.89
1:K:169:LYS:HA	1:K:224:LYS:HG3	1.55	0.89
2:H:170:ILE:HA	2:H:248:VAL:HA	1.54	0.89
2:H:17:ARG:NH1	2:H:51:LEU:CB	2.34	0.89
1:E:118:ILE:HB	1:E:145:SER:HA	1.55	0.89
2:D:177:THR:HG1	2:D:313:TYR:HH	1.20	0.88
1:A:242:LEU:HB3	1:A:307:VAL:HB	1.55	0.88
1:E:175:THR:HA	1:E:230:LEU:HB2	1.54	0.88
2:F:104:ARG:HH21	2:F:128:ILE:HA	1.38	0.88
1:K:265:GLY:O	1:K:268:LYS:NZ	2.06	0.88
2:R:170:ILE:HA	2:R:248:VAL:HA	1.54	0.88
1:I:215:SER:HB2	1:I:222:LYS:HA	1.55	0.88
1:Q:254:ASP:OD1	1:Q:254:ASP:N	2.07	0.88
1:I:179:THR:H	1:I:182:GLN:HE22	1.17	0.87
1:I:362:GLU:H	1:Q:195:ARG:HH12	1.17	0.87
1:E:328:VAL:HA	1:E:331:LYS:HB2	1.54	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:57:ASP:O	2:D:69:ASP:CA	2.22	0.87
1:O:115:LYS:HA	1:O:142:ASN:HB3	1.57	0.87
2:F:38:VAL:CG1	2:F:64:SER:HA	2.01	0.87
2:L:240:SER:O	2:L:313:TYR:N	2.08	0.87
1:K:5:ILE:HA	1:K:93:ILE:HB	1.57	0.86
2:R:66:ILE:C	2:R:72:VAL:HG13	1.96	0.86
2:B:47:TYR:O	1:C:197:ARG:NH2	2.07	0.86
1:K:297:THR:HG23	1:K:307:VAL:HA	1.55	0.86
2:L:31:VAL:HG13	2:L:74:LYS:C	1.93	0.86
2:D:265:ALA:HA	2:D:269:LEU:HB2	1.57	0.86
1:O:167:ILE:HG23	1:O:244:VAL:HG21	1.56	0.86
2:P:240:SER:O	2:P:313:TYR:N	2.08	0.86
2:J:58:VAL:HA	2:J:68:VAL:HA	1.57	0.86
2:L:32:ILE:O	2:L:76:VAL:N	2.08	0.86
2:P:104:ARG:HH21	2:P:128:ILE:HA	1.38	0.86
1:K:282:ASP:OD1	1:K:282:ASP:N	2.09	0.86
2:L:32:ILE:CG2	2:L:75:VAL:HG21	2.04	0.86
1:O:28:VAL:HA	1:O:71:ILE:HG13	1.55	0.86
1:O:184:LEU:HG	1:O:185:LEU:HG	1.57	0.86
1:I:323:ASP:OD1	1:I:323:ASP:N	2.07	0.85
1:Q:306:LYS:HZ3	1:O:227:GLY:HA2	1.41	0.85
2:L:244:LEU:HD11	2:L:246:VAL:HG13	1.55	0.85
1:I:121:PRO:HA	1:I:147:ALA:HA	1.56	0.85
1:A:118:ILE:HD11	1:A:143:ILE:HG22	1.58	0.85
1:I:194:ARG:HH12	1:I:205:PRO:HD2	1.41	0.85
2:L:31:VAL:HA	2:L:74:LYS:C	1.95	0.85
2:L:32:ILE:HG23	2:L:75:VAL:CG2	2.06	0.85
1:C:282:ASP:OD1	1:C:282:ASP:N	2.06	0.85
1:E:66:ILE:HB	1:E:69:LYS:HB2	1.58	0.85
1:G:184:LEU:HB2	2:F:187:LEU:HB2	1.57	0.85
2:H:34:ASP:CB	2:H:75:VAL:HG21	2.06	0.85
1:E:254:ASP:OD1	1:E:254:ASP:N	2.03	0.85
2:L:265:ALA:HA	2:L:269:LEU:HB2	1.56	0.85
2:P:6:ASN:HA	2:P:33:ASN:HB3	1.59	0.85
2:F:38:VAL:HG21	2:F:63:ASP:OD2	1.76	0.84
2:R:240:SER:O	2:R:313:TYR:N	2.10	0.84
2:H:31:VAL:HG23	2:H:74:LYS:NZ	1.91	0.84
1:I:236:ASN:H	1:I:284:ARG:HH21	1.21	0.84
2:J:8:PHE:O	2:J:13:ARG:NH2	2.10	0.84
2:D:240:SER:O	2:D:313:TYR:N	2.10	0.84
1:Q:130:VAL:HA	1:Q:134:GLU:HB3	1.60	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:317:TYR:HE2	3:A:401:NAD:H4N	1.42	0.84
1:G:130:VAL:HA	1:G:134:GLU:HB3	1.58	0.84
1:K:115:LYS:HG2	1:K:142:ASN:HA	1.60	0.84
2:H:179:HIS:O	2:H:234:VAL:N	2.11	0.84
1:A:176:HIS:HB3	1:A:231:ARG:HA	1.60	0.84
1:O:157:PHE:O	1:O:161:LEU:N	2.09	0.84
1:G:177:SER:O	1:G:231:ARG:NH2	2.11	0.84
1:K:17:ARG:NH2	1:K:51:GLY:O	2.10	0.84
2:P:17:ARG:NH1	2:P:52:GLY:O	2.10	0.84
1:E:181:ASP:OD2	1:E:195:ARG:NH1	2.10	0.84
2:F:43:HIS:HA	2:F:46:LYS:HB3	1.58	0.84
2:J:187:LEU:HB2	1:K:184:LEU:HB2	1.59	0.83
1:I:181:ASP:OD2	1:I:195:ARG:NH2	2.11	0.83
2:F:186:ARG:HG2	2:F:192:HIS:HB2	1.60	0.83
2:L:30:VAL:C	2:L:73:ILE:HG23	1.99	0.83
2:B:8:PHE:O	2:B:13:ARG:NH2	2.11	0.83
2:R:46:LYS:NZ	2:R:53:THR:OG1	2.11	0.83
2:P:42:SER:O	2:P:46:LYS:N	2.09	0.83
2:H:240:SER:O	2:H:313:TYR:N	2.10	0.83
1:E:179:THR:OG1	1:E:231:ARG:NH2	2.10	0.83
2:F:240:SER:O	2:F:313:TYR:N	2.11	0.83
1:K:63:THR:HA	1:K:72:LYS:HA	1.60	0.83
2:B:189:ASP:HA	2:B:199:ARG:HA	1.60	0.83
1:A:253:GLU:OE1	1:A:260:ARG:NH2	2.11	0.83
1:G:1:LEU:HB2	1:G:25:LEU:HB3	1.60	0.83
1:E:10:ARG:O	1:E:14:ASN:ND2	2.11	0.83
1:G:254:ASP:N	1:G:254:ASP:OD1	2.09	0.83
1:E:157:PHE:O	1:E:161:LEU:N	2.11	0.83
1:I:253:GLU:OE1	1:I:260:ARG:NH2	2.11	0.83
1:C:191:ARG:NH2	1:O:358:CYS:SG	2.49	0.83
2:D:223:LEU:HA	2:D:227:LEU:HD23	1.59	0.83
2:R:179:HIS:O	2:R:234:VAL:N	2.10	0.83
2:P:43:HIS:HA	2:P:46:LYS:HB3	1.60	0.83
1:G:270:VAL:O	1:G:290:SER:N	2.11	0.83
1:C:340:ALA:HA	1:C:345:LEU:HA	1.61	0.83
2:H:31:VAL:CG2	2:H:74:LYS:NZ	2.42	0.83
1:I:118:ILE:HB	1:I:145:SER:HA	1.61	0.82
1:I:246:ILE:HG22	1:I:303:ASP:HA	1.61	0.82
2:L:32:ILE:CG2	2:L:75:VAL:HG23	2.08	0.82
1:A:121:PRO:HA	1:A:147:ALA:HA	1.62	0.82
1:O:20:ARG:HH21	1:O:319:GLN:HE21	1.26	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:57:VAL:HA	1:O:67:ASP:H	1.45	0.82
1:O:157:PHE:HB3	1:O:271:LEU:HD21	1.60	0.82
2:H:32:ILE:CA	2:H:74:LYS:O	2.27	0.82
2:F:46:LYS:HD2	2:F:58:VAL:CG1	2.09	0.82
2:J:217:ALA:HA	2:J:224:LYS:HG2	1.62	0.82
1:K:151:THR:HG21	1:K:213:ALA:HB3	1.62	0.82
1:G:341:SER:HA	1:G:345:LEU:HA	1.61	0.82
1:Q:298:MET:HG2	1:Q:306:LYS:HB3	1.61	0.82
1:Q:45:LYS:NZ	1:Q:53:PHE:O	2.13	0.82
2:B:217:ALA:HA	2:B:224:LYS:HG2	1.61	0.82
1:Q:90:ASP:HA	1:Q:114:LYS:HB2	1.61	0.82
2:R:30:VAL:O	2:R:74:LYS:N	2.13	0.82
2:F:6:ASN:HA	2:F:33:ASN:HB3	1.62	0.82
2:F:42:SER:O	2:F:46:LYS:N	2.11	0.82
1:A:239:VAL:HB	1:A:310:TRP:HA	1.62	0.82
1:A:149:CYS:HA	1:A:152:ASN:HB2	1.62	0.82
1:G:57:VAL:HG22	1:G:66:ILE:HG23	1.60	0.82
1:G:155:ALA:O	1:G:159:LYS:N	2.12	0.82
2:H:299:THR:HG22	2:H:309:VAL:HA	1.61	0.82
2:J:272:ILE:O	2:J:291:SER:N	2.10	0.81
1:C:231:ARG:HH11	1:C:231:ARG:HA	1.45	0.81
2:F:17:ARG:NH1	2:F:52:GLY:O	2.11	0.81
1:A:181:ASP:OD2	1:A:195:ARG:NH1	2.13	0.81
2:D:170:ILE:HA	2:D:248:VAL:HA	1.60	0.81
1:O:254:ASP:N	1:O:254:ASP:OD1	2.05	0.81
1:I:176:HIS:O	1:I:232:VAL:N	2.12	0.81
1:K:286:SER:O	1:K:315:TRP:NE1	2.13	0.81
2:L:32:ILE:N	2:L:75:VAL:HA	1.92	0.81
1:A:206:THR:HB	1:A:229:ALA:HB3	1.63	0.81
1:A:323:ASP:OD1	1:A:323:ASP:N	2.09	0.81
1:C:115:LYS:HG2	1:C:142:ASN:HA	1.61	0.81
1:O:66:ILE:HB	1:O:69:LYS:HB2	1.62	0.81
2:P:38:VAL:HB	2:P:66:ILE:HD11	1.61	0.81
2:R:299:THR:HG22	2:R:309:VAL:HA	1.61	0.81
1:E:346:GLU:O	1:E:350:LYS:N	2.13	0.81
2:L:67:SER:HB3	2:L:72:VAL:HG23	1.61	0.81
1:C:181:ASP:OD1	1:C:182:GLN:NE2	2.13	0.81
1:Q:270:VAL:O	1:Q:290:SER:N	2.14	0.81
2:F:185:GLN:HE21	2:F:233:ARG:HH11	1.27	0.81
2:J:46:LYS:NZ	2:J:53:THR:OG1	2.14	0.81
2:F:318:GLY:HA2	2:F:321:GLN:HB2	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:182:THR:OG1	2:L:185:GLN:NE2	2.13	0.81
2:B:281:VAL:HB	2:D:204:ASN:HB2	1.61	0.81
1:O:174:THR:HB	1:O:240:VAL:HG12	1.60	0.81
2:H:302:MET:HB2	2:H:306:MET:HB3	1.61	0.81
1:E:1:LEU:HB2	1:E:25:LEU:HA	1.63	0.81
1:A:322:VAL:O	1:A:326:ASP:N	2.14	0.81
1:C:151:THR:HG21	1:C:213:ALA:HB3	1.61	0.81
1:I:13:ARG:NH2	3:Q:401:NAD:O2A	2.14	0.81
1:K:16:LEU:O	1:K:18(B):HIS:N	2.11	0.81
1:A:194:ARG:HH12	1:A:205:PRO:HD2	1.46	0.81
2:P:26:PRO:HB2	2:P:331:ALA:HB1	1.63	0.81
2:H:120:ILE:H	2:H:148:SER:HA	1.46	0.81
1:Q:257:ASN:HA	1:Q:260:ARG:HD2	1.63	0.80
1:Q:127:THR:HG21	1:Q:216:LEU:HB3	1.64	0.80
1:Q:316:GLY:O	1:Q:320:ARG:NH1	2.15	0.80
1:O:114:LYS:O	1:O:142:ASN:ND2	2.14	0.80
2:P:239:VAL:HG22	2:P:314:ASP:HA	1.62	0.80
1:G:45:LYS:NZ	1:G:53:PHE:O	2.12	0.80
2:H:31:VAL:CG2	2:H:74:LYS:CB	2.53	0.80
1:Q:155:ALA:O	1:Q:159:LYS:N	2.13	0.80
1:K:6:ASN:HD22	1:K:94:GLU:HA	1.46	0.80
2:B:179:HIS:O	2:B:234:VAL:N	2.14	0.80
1:Q:57:VAL:HG22	1:Q:66:ILE:HG23	1.64	0.80
2:R:22:ARG:HG3	2:R:324:VAL:HG11	1.61	0.80
2:F:16:LEU:CD2	2:F:68:VAL:HG11	2.12	0.80
2:B:46:LYS:NZ	2:B:53:THR:OG1	2.13	0.80
2:F:135:VAL:HG11	2:F:219:VAL:HB	1.64	0.80
2:B:10:ARG:HA	2:B:13:ARG:HD2	1.63	0.80
2:B:272:ILE:O	2:B:291:SER:N	2.11	0.80
2:R:48:ASP:H	2:R:53:THR:HA	1.46	0.80
2:R:67:SER:CA	2:R:72:VAL:HG13	2.12	0.80
2:F:239:VAL:HG22	2:F:314:ASP:HA	1.63	0.80
1:Q:83:PRO:HB2	1:Q:86:GLU:HB3	1.61	0.80
1:E:129:VAL:H	1:E:133:ASN:HD21	1.30	0.80
1:K:183:ARG:NH1	1:E:359:LYS:O	2.15	0.80
2:L:160:PHE:O	2:L:164:LEU:N	2.15	0.80
1:A:118:ILE:HB	1:A:145:SER:HA	1.62	0.80
1:Q:185:LEU:HD11	2:P:183:GLY:H	1.46	0.80
2:H:32:ILE:O	2:H:74:LYS:C	2.19	0.80
2:R:55:ASP:OD1	2:R:55:ASP:N	2.15	0.80
2:R:302:MET:HB2	2:R:306:MET:HB3	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:105:ALA:HB1	1:G:116:VAL:HG11	1.62	0.80
1:I:254:ASP:OD1	1:I:254:ASP:N	2.15	0.80
1:Q:46:TYR:O	2:P:199:ARG:NH2	2.14	0.80
1:E:20:ARG:HH21	1:E:319:GLN:HE21	1.30	0.80
1:E:258:ALA:O	1:E:261:LYS:NZ	2.15	0.80
1:C:45:LYS:O	1:C:53:PHE:N	2.14	0.79
1:Q:205:PRO:HA	1:Q:230:LEU:HA	1.63	0.79
1:G:83:PRO:HB2	1:G:86:GLU:HB3	1.61	0.79
2:J:281:VAL:HB	2:L:204:ASN:HB2	1.63	0.79
1:I:192:ASP:OD2	1:I:196:ALA:N	2.15	0.79
2:B:265:ALA:HA	2:B:269:LEU:HB2	1.65	0.79
1:C:5:ILE:HA	1:C:93:ILE:HB	1.65	0.79
2:L:170:ILE:HA	2:L:248:VAL:HA	1.64	0.79
2:B:213:ALA:O	2:B:228:ASN:ND2	2.16	0.79
2:B:240:SER:O	2:B:313:TYR:N	2.15	0.79
2:R:67:SER:HA	2:R:72:VAL:CA	2.10	0.79
2:F:255:GLU:O	2:F:259:ALA:N	2.14	0.79
1:Q:177:SER:HA	1:Q:234:THR:HG23	1.64	0.79
1:G:65:SER:HA	1:G:70:PRO:HA	1.64	0.79
1:G:257:ASN:HA	1:G:260:ARG:HD2	1.62	0.79
2:F:38:VAL:HB	2:F:66:ILE:HD11	1.64	0.79
2:J:265:ALA:HA	2:J:269:LEU:HB2	1.64	0.79
1:Q:167:ILE:HG12	1:Q:246:ILE:HG13	1.65	0.79
1:G:11:ILE:HA	1:G:14:ASN:HB2	1.65	0.79
2:L:181:TYR:N	2:L:236:THR:O	2.16	0.79
2:P:255:GLU:O	2:P:259:ALA:N	2.15	0.79
1:E:57:VAL:HA	1:E:67:ASP:H	1.47	0.79
2:F:26:PRO:HB2	2:F:331:ALA:HB1	1.63	0.79
1:A:282:ASP:OD1	1:A:282:ASP:N	2.09	0.79
2:B:90:GLY:O	2:B:116:LYS:NZ	2.16	0.79
1:Q:57:VAL:HA	1:Q:66:ILE:HA	1.63	0.79
2:R:11:ILE:HA	2:R:14:ASN:HB2	1.64	0.79
1:O:118:ILE:HB	1:O:145:SER:HA	1.63	0.79
1:G:204:VAL:O	1:G:231:ARG:N	2.15	0.79
2:H:32:ILE:C	2:H:74:LYS:O	2.21	0.79
1:E:236:ASN:ND2	1:E:312:ASP:OD2	2.16	0.79
2:J:213:ALA:O	2:J:228:ASN:ND2	2.16	0.79
1:C:136:ASP:N	1:C:136:ASP:OD1	2.15	0.79
1:Q:105:ALA:HB1	1:Q:116:VAL:HG11	1.63	0.79
1:E:149:CYS:HA	1:E:153:CYS:H	1.48	0.79
2:F:16:LEU:HD22	2:F:68:VAL:HG11	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:160:PHE:HB2	2:F:261:PHE:HE2	1.46	0.79
2:L:10:ARG:N	3:L:401:NAD:O1N	2.16	0.78
1:A:254:ASP:OD1	1:A:254:ASP:N	2.16	0.78
2:L:42:SER:HB3	2:L:66:ILE:HD12	1.63	0.78
1:G:46:TYR:O	2:F:199:ARG:NH2	2.16	0.78
1:G:323:ASP:N	1:G:323:ASP:OD1	2.11	0.78
1:E:176:HIS:N	1:E:230:LEU:O	2.14	0.78
1:I:149:CYS:HA	1:I:152:ASN:HB2	1.65	0.78
2:L:28:ASP:OD2	2:L:71:LYS:CE	2.31	0.78
1:A:179:THR:OG1	1:A:181:ASP:OD1	2.01	0.78
2:J:90:GLY:O	2:J:116:LYS:NZ	2.16	0.78
1:A:13:ARG:NH2	3:A:401:NAD:O2A	2.15	0.78
2:D:160:PHE:O	2:D:164:LEU:N	2.15	0.78
1:Q:47:ASP:OD1	1:Q:51:GLY:N	2.17	0.78
2:F:88:ASP:N	2:F:88:ASP:OD1	2.12	0.78
2:B:204:ASN:ND2	2:D:282:SER:OG	2.17	0.78
1:Q:11:ILE:HA	1:Q:14:ASN:HB2	1.66	0.78
1:Q:66:ILE:N	1:Q:69:LYS:O	2.16	0.78
2:R:120:ILE:H	2:R:148:SER:HA	1.45	0.78
1:G:47:ASP:OD1	1:G:51:GLY:N	2.17	0.78
1:E:157:PHE:HB3	1:E:271:LEU:HD21	1.64	0.78
2:F:38:VAL:HG21	2:F:63:ASP:O	1.84	0.78
1:I:314:GLU:OE2	3:Q:401:NAD:N7N	2.16	0.78
2:J:179:HIS:O	2:J:234:VAL:N	2.14	0.78
2:P:318:GLY:HA2	2:P:321:GLN:HB2	1.65	0.78
1:E:177:SER:O	1:E:231:ARG:NH1	2.16	0.78
1:G:34:GLY:O	1:G:38:LYS:NZ	2.17	0.78
2:F:241:VAL:HG22	2:F:312:TRP:HA	1.66	0.78
2:L:11:ILE:HA	2:L:14:ASN:HB2	1.65	0.78
1:A:57:VAL:HA	1:A:66:ILE:HA	1.66	0.78
1:C:299:VAL:HG13	1:C:305:VAL:HG22	1.66	0.78
2:F:120:ILE:HG22	2:F:122:ALA:H	1.48	0.78
2:F:213:ALA:O	2:F:228:ASN:ND2	2.16	0.78
2:J:18:CYS:O	2:J:22:ARG:N	2.15	0.78
1:K:10:ARG:O	1:K:14:ASN:ND2	2.17	0.78
2:D:5:ILE:HD12	2:D:95:ILE:HG12	1.66	0.78
1:O:58:LYS:HA	1:O:58:LYS:HZ2	1.49	0.78
1:G:167:ILE:HA	1:G:247:GLU:H	1.49	0.78
2:H:59:LYS:NZ	2:H:59:LYS:HB3	1.97	0.78
1:I:183:ARG:NH2	1:I:188:SER:O	2.15	0.78
1:Q:34:GLY:O	1:Q:38:LYS:NZ	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:213:ALA:O	2:P:228:ASN:ND2	2.16	0.78
1:G:253:GLU:O	1:G:257:ASN:N	2.17	0.78
2:J:18:CYS:SG	2:J:321:GLN:NE2	2.57	0.77
1:K:231:ARG:HH11	1:K:231:ARG:HA	1.48	0.77
1:I:57:VAL:HA	1:I:66:ILE:HA	1.65	0.77
1:I:66:ILE:HG23	1:I:69:LYS:HB2	1.67	0.77
2:J:46:LYS:O	2:J:53:THR:OG1	2.02	0.77
1:K:3:VAL:HG21	1:K:25:LEU:HB3	1.66	0.77
1:A:198:ALA:O	1:A:202:ASN:ND2	2.17	0.77
2:F:16:LEU:HA	2:F:19:TRP:HB3	1.67	0.77
1:I:195:ARG:NH1	1:Q:359:LYS:O	2.16	0.77
1:K:37:VAL:HA	1:K:40:ALA:HB3	1.66	0.77
1:A:172:MET:SD	1:A:172:MET:N	2.57	0.77
2:B:201:ALA:HB1	2:B:204:ASN:HB2	1.67	0.77
2:D:92:ASP:O	2:D:117:LYS:N	2.13	0.77
2:R:39:LYS:HZ3	2:R:40:GLN:H	1.27	0.77
2:H:2:LYS:NZ	2:H:30:VAL:CG2	2.47	0.77
2:H:320:SER:O	2:H:324:VAL:N	2.14	0.77
2:F:6:ASN:OD1	2:F:33:ASN:ND2	2.18	0.77
1:I:184:LEU:HB2	2:L:187:LEU:HB3	1.67	0.77
1:I:5:ILE:HB	1:I:30:VAL:HG13	1.67	0.77
2:P:120:ILE:HG22	2:P:122:ALA:H	1.49	0.77
1:G:57:VAL:HA	1:G:66:ILE:HA	1.64	0.77
2:H:16:LEU:HD11	2:H:45:LEU:HD21	1.67	0.77
2:J:192:HIS:HB3	2:J:198:ALA:HA	1.67	0.77
2:F:186:ARG:NH2	2:F:191:SER:O	2.18	0.77
2:J:204:ASN:ND2	2:L:282:SER:OG	2.18	0.77
1:K:362:GLU:H	1:E:195:ARG:HH12	1.33	0.77
1:A:66:ILE:HG23	1:A:69:LYS:HB2	1.67	0.77
2:D:10:ARG:O	2:D:14:ASN:N	2.18	0.77
1:I:322:VAL:O	1:I:326:ASP:N	2.15	0.77
1:O:175:THR:HA	1:O:230:LEU:HB2	1.66	0.77
1:A:177:SER:HA	1:A:234:THR:HG23	1.66	0.76
2:D:180:SER:HB3	2:D:315:ASN:HD22	1.50	0.76
1:O:256:ASN:HB2	1:O:260:ARG:HH21	1.49	0.76
2:H:6:ASN:HB3	2:H:96:GLU:HA	1.66	0.76
2:H:248:VAL:HG22	2:H:305:ASP:HA	1.67	0.76
1:E:349:CYS:O	1:E:353:PRO:N	2.18	0.76
1:K:136:ASP:N	1:K:136:ASP:OD1	2.15	0.76
1:G:45:LYS:O	1:G:53:PHE:N	2.16	0.76
2:J:170:ILE:HA	2:J:248:VAL:HA	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:14:ASN:O	2:L:18:CYS:N	2.13	0.76
1:A:195:ARG:HH12	1:G:362:GLU:H	1.32	0.76
1:A:246:ILE:HG22	1:A:303:ASP:HA	1.67	0.76
1:C:297:THR:HG23	1:C:307:VAL:HA	1.66	0.76
1:Q:90:ASP:OD1	1:Q:114:LYS:NZ	2.17	0.76
1:Q:136:ASP:OD1	1:Q:136:ASP:N	2.18	0.76
1:Q:169:LYS:HA	1:Q:224:LYS:HB3	1.66	0.76
2:P:221:PRO:O	2:P:224:LYS:NZ	2.17	0.76
1:G:9:GLY:O	1:G:13:ARG:N	2.18	0.76
2:H:282:SER:O	2:H:286:ARG:NH2	2.18	0.76
1:E:213:ALA:HA	1:E:216:LEU:HD23	1.67	0.76
1:Q:45:LYS:O	1:Q:53:PHE:N	2.16	0.76
1:Q:217:VAL:HG23	1:Q:218:LEU:HD22	1.66	0.76
1:O:129:VAL:HB	1:O:132:VAL:HB	1.67	0.76
2:P:135:VAL:HG11	2:P:219:VAL:HB	1.66	0.76
2:F:220:LEU:HB3	2:F:223:LEU:HD13	1.66	0.76
2:F:321:GLN:O	2:F:325:ASP:N	2.13	0.76
2:J:258:ASN:O	2:J:262:ARG:N	2.19	0.76
2:L:6:ASN:HA	2:L:33:ASN:HB3	1.68	0.76
1:A:263:ALA:HA	1:A:267:LEU:HB2	1.68	0.76
1:Q:346:GLU:HA	1:Q:349:CYS:HB3	1.68	0.76
1:O:349:CYS:O	1:O:353:PRO:N	2.18	0.76
2:H:8:PHE:O	2:H:13:ARG:NH2	2.18	0.76
2:H:31:VAL:HG22	2:H:74:LYS:HD2	1.64	0.76
2:H:33:ASN:C	2:H:75:VAL:HG23	2.04	0.76
1:A:0:LYS:NZ	1:A:22:ASP:O	2.18	0.76
1:A:9:GLY:O	1:A:13:ARG:N	2.16	0.76
1:A:281:VAL:HG11	2:B:49:SER:HA	1.68	0.76
2:B:238:ASN:O	2:B:315:ASN:ND2	2.18	0.76
1:Q:15:PHE:HE1	1:Q:322:VAL:HG22	1.49	0.76
2:R:220:LEU:HD13	2:R:223:LEU:HD13	1.67	0.76
1:I:16:LEU:O	1:I:18(B):HIS:N	2.17	0.76
1:I:76:ASN:ND2	1:I:78:ASP:O	2.19	0.76
3:K:401:NAD:N7N	3:K:401:NAD:O2N	2.19	0.76
1:A:184:LEU:HB2	2:D:187:LEU:HB2	1.65	0.76
2:P:186:ARG:NH2	2:P:191:SER:O	2.19	0.76
2:P:186:ARG:HG2	2:P:192:HIS:HB2	1.66	0.76
2:P:247:GLN:HA	2:P:306:MET:HA	1.67	0.76
2:P:248:VAL:N	2:P:305:ASP:O	2.18	0.76
2:H:17:ARG:NE	2:H:51:LEU:HD12	2.01	0.76
2:H:220:LEU:HD13	2:H:223:LEU:HD13	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:142:HIS:HB2	2:B:333:LYS:HE2	1.65	0.76
1:Q:204:VAL:O	1:Q:231:ARG:N	2.19	0.76
1:O:118:ILE:HD11	1:O:143:ILE:HG22	1.68	0.76
2:P:220:LEU:HB3	2:P:223:LEU:HD13	1.68	0.76
2:L:19:TRP:O	2:L:23:LYS:NZ	2.19	0.76
1:C:30:VAL:H	1:C:73:VAL:HA	1.51	0.76
2:D:57:ASP:O	2:D:69:ASP:HA	1.85	0.76
2:D:60:THR:HB	2:D:66:ILE:HD13	1.65	0.76
2:B:39:LYS:HZ3	2:B:40:GLN:H	1.33	0.76
2:R:320:SER:O	2:R:324:VAL:N	2.16	0.76
2:F:179:HIS:O	2:F:234:VAL:N	2.12	0.76
2:J:22:ARG:NH2	2:J:325:ASP:OD1	2.19	0.75
2:L:17:ARG:O	2:L:21:GLY:N	2.18	0.75
2:B:186:ARG:HD3	2:B:192:HIS:HB2	1.68	0.75
1:Q:167:ILE:HA	1:Q:247:GLU:H	1.49	0.75
2:H:175:MET:HG3	2:H:244:LEU:HD13	1.69	0.75
2:H:244:LEU:HD11	2:H:246:VAL:HG13	1.67	0.75
1:K:78:ASP:HB3	1:K:81:LYS:HD2	1.66	0.75
1:C:293:ASP:OD1	1:C:297:THR:N	2.20	0.75
2:R:248:VAL:HG22	2:R:305:ASP:HA	1.68	0.75
2:H:106:GLY:O	2:H:110:HIS:ND1	2.19	0.75
2:L:5:ILE:HD12	2:L:95:ILE:HG12	1.66	0.75
1:A:147:ALA:O	1:A:317:TYR:OH	2.04	0.75
1:I:263:ALA:HA	1:I:267:LEU:HB2	1.68	0.75
2:J:240:SER:O	2:J:313:TYR:N	2.19	0.75
2:B:118:VAL:HB	2:B:146:ILE:HA	1.68	0.75
2:D:182:THR:OG1	2:D:185:GLN:NE2	2.18	0.75
1:G:136:ASP:N	1:G:136:ASP:OD1	2.20	0.75
2:H:181:TYR:HE1	1:E:185:LEU:HD21	1.51	0.75
1:K:236:ASN:ND2	1:K:312:ASP:OD2	2.20	0.75
1:C:323:ASP:OD1	1:C:323:ASP:N	2.16	0.75
1:O:181:ASP:OD1	1:O:182:GLN:NE2	2.18	0.75
1:G:15:PHE:O	1:G:18(A):TRP:N	2.14	0.75
2:F:221:PRO:O	2:F:224:LYS:NZ	2.18	0.75
1:I:116:VAL:HB	1:I:143:ILE:HA	1.67	0.75
2:J:172:LYS:NZ	2:L:306:MET:SD	2.60	0.75
2:J:238:ASN:O	2:J:315:ASN:ND2	2.19	0.75
1:C:0:LYS:HD3	1:C:1:LEU:HD22	1.67	0.75
1:C:183:ARG:HH22	1:O:357:GLU:HA	1.49	0.75
1:O:84:TRP:HB3	1:O:89:ILE:HB	1.68	0.75
2:P:40:GLN:O	2:P:44:LEU:N	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:241:VAL:HG22	2:P:312:TRP:HA	1.67	0.75
1:E:116:VAL:O	1:E:144:ILE:N	2.17	0.75
2:F:131:TYR:HA	2:F:136:ASN:HB2	1.69	0.75
2:J:221:PRO:HA	2:J:224:LYS:HE2	1.69	0.75
2:B:258:ASN:O	2:B:262:ARG:N	2.19	0.75
1:Q:253:GLU:O	1:Q:257:ASN:N	2.18	0.75
1:O:179:THR:N	1:O:182:GLN:OE1	2.19	0.75
2:H:315:ASN:OD1	2:H:315:ASN:N	2.20	0.75
2:F:140:TYR:O	2:F:333:LYS:NZ	2.20	0.75
1:I:147:ALA:O	1:I:317:TYR:OH	2.05	0.75
1:I:181:ASP:HB2	1:I:195:ARG:HH12	1.51	0.75
1:I:205:PRO:HB2	1:K:296:LEU:HD12	1.69	0.75
1:I:224:LYS:HB3	1:I:224:LYS:HZ3	1.52	0.75
1:C:298:MET:O	1:C:306:LYS:N	2.20	0.75
1:O:6:ASN:ND2	1:O:96:THR:OG1	2.20	0.75
2:P:252:THR:H	2:P:304:ASP:HB3	1.51	0.75
2:J:201:ALA:HB1	2:J:204:ASN:HB2	1.68	0.75
1:G:217:VAL:HG23	1:G:218:LEU:HD22	1.66	0.75
1:G:278:LEU:HD22	2:H:47:TYR:CE2	2.22	0.75
1:K:298:MET:O	1:K:306:LYS:N	2.19	0.74
1:Q:186:ASP:O	2:P:10:ARG:NH2	2.20	0.74
2:F:117:LYS:NZ	2:F:142:HIS:O	2.19	0.74
2:F:247:GLN:HA	2:F:306:MET:HA	1.67	0.74
1:I:349:CYS:SG	1:Q:191:ARG:NH2	2.61	0.74
2:D:10:ARG:N	3:D:401:NAD:O1N	2.14	0.74
1:G:148:SER:O	1:G:152:ASN:N	2.17	0.74
1:E:15:PHE:O	1:E:18(A):TRP:N	2.16	0.74
1:K:316:GLY:O	1:K:320:ARG:N	2.17	0.74
1:K:340:ALA:O	1:K:344:PRO:N	2.19	0.74
1:C:345:LEU:O	1:C:349:CYS:N	2.19	0.74
2:R:66:ILE:O	2:R:72:VAL:HG12	1.86	0.74
2:R:195:LEU:HD13	2:P:279:PRO:HG3	1.69	0.74
1:O:177:SER:HA	1:O:234:THR:HG23	1.68	0.74
2:H:195:LEU:HD13	2:F:279:PRO:HG3	1.68	0.74
2:L:92:ASP:O	2:L:117:LYS:N	2.16	0.74
1:C:312:ASP:OD1	1:C:316:GLY:N	2.21	0.74
2:D:46:LYS:O	2:D:54:PHE:N	2.17	0.74
1:Q:265:GLY:O	1:Q:268:LYS:NZ	2.20	0.74
2:R:59:LYS:CE	2:R:59:LYS:HA	2.17	0.74
2:R:263:GLU:O	2:R:267:ASN:ND2	2.19	0.74
1:O:8:PHE:O	1:O:13:ARG:NH1	2.19	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:102:GLY:O	1:G:106:GLY:N	2.19	0.74
2:L:136:ASN:HD21	2:L:219:VAL:HG12	1.53	0.74
2:D:19:TRP:O	2:D:23:LYS:NZ	2.20	0.74
1:O:258:ALA:O	1:O:261:LYS:NZ	2.16	0.74
2:P:117:LYS:NZ	2:P:142:HIS:O	2.20	0.74
2:F:6:ASN:HB3	2:F:96:GLU:HA	1.69	0.74
1:K:324:LEU:O	1:K:328:VAL:N	2.17	0.74
2:B:22:ARG:HG3	2:B:324:VAL:HG11	1.69	0.74
1:C:78:ASP:HB3	1:C:81:LYS:HD2	1.70	0.74
1:Q:102:GLY:O	1:Q:106:GLY:N	2.18	0.74
2:H:87:GLY:N	2:H:113:ALA:O	2.21	0.74
2:H:255:GLU:OE2	2:H:262:ARG:NH1	2.21	0.74
1:E:178:TYR:HD2	1:E:233:PRO:HA	1.52	0.74
1:I:136:ASP:OD1	1:I:136:ASP:N	2.20	0.74
2:L:28:ASP:CG	2:L:71:LYS:HE3	2.08	0.74
2:L:46:LYS:O	2:L:54:PHE:N	2.17	0.74
2:R:282:SER:O	2:R:286:ARG:NH2	2.20	0.74
1:O:149:CYS:HA	1:O:153:CYS:H	1.52	0.74
2:H:31:VAL:HA	2:H:74:LYS:HB2	1.70	0.74
2:H:263:GLU:O	2:H:267:ASN:ND2	2.20	0.74
1:I:91:ILE:HG23	1:I:115:LYS:HB2	1.69	0.74
2:J:47:TYR:O	1:K:197:ARG:NH2	2.21	0.74
1:K:293:ASP:OD1	1:K:297:THR:N	2.18	0.74
2:B:11:ILE:O	2:B:15:PHE:N	2.14	0.74
1:C:34:GLY:O	1:C:38:LYS:NZ	2.20	0.74
1:C:37:VAL:HA	1:C:40:ALA:HB3	1.70	0.74
1:C:162:ASP:O	1:C:166:GLY:N	2.21	0.74
2:D:11:ILE:HA	2:D:14:ASN:HB2	1.70	0.74
2:D:149:ASN:OD1	2:D:150:ALA:N	2.20	0.74
2:R:255:GLU:OE2	2:R:262:ARG:NH1	2.21	0.74
1:O:177:SER:O	1:O:231:ARG:NH1	2.18	0.74
2:P:142:HIS:HD2	2:P:336:ALA:H	1.35	0.74
1:G:28:VAL:O	1:G:72:LYS:N	2.21	0.74
1:G:167:ILE:HG12	1:G:246:ILE:HG13	1.68	0.74
1:K:323:ASP:OD1	1:K:323:ASP:N	2.17	0.74
1:A:242:LEU:N	1:A:307:VAL:O	2.20	0.74
2:B:46:LYS:O	2:B:53:THR:OG1	2.05	0.74
2:R:244:LEU:HD11	2:R:246:VAL:HG13	1.68	0.74
2:P:6:ASN:OD1	2:P:33:ASN:ND2	2.21	0.74
1:G:179:THR:O	1:G:182:GLN:NE2	2.20	0.74
1:E:270:VAL:O	1:E:290:SER:N	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:32:ILE:N	2:F:74:LYS:O	2.21	0.74
2:B:46:LYS:HB2	2:B:58:VAL:HG21	1.70	0.74
1:C:63:THR:HA	1:C:72:LYS:HA	1.70	0.74
2:D:275:VAL:HA	2:D:294:ILE:H	1.53	0.74
1:O:15:PHE:O	1:O:18(A):TRP:N	2.16	0.74
2:B:170:ILE:HA	2:B:248:VAL:HA	1.70	0.73
2:D:14:ASN:O	2:D:18:CYS:N	2.14	0.73
2:D:181:TYR:N	2:D:236:THR:O	2.16	0.73
1:G:62:GLU:OE1	1:G:72:LYS:NZ	2.20	0.73
2:H:44:LEU:HD23	1:E:197:ARG:CZ	2.18	0.73
1:I:91:ILE:HG22	1:I:117:ILE:HG13	1.69	0.73
1:K:183:ARG:NH2	1:K:188:SER:O	2.21	0.73
1:Q:62:GLU:HB2	1:Q:72:LYS:HZ1	1.53	0.73
2:R:67:SER:HB3	2:R:72:VAL:CB	2.18	0.73
2:P:131:TYR:HA	2:P:136:ASN:HB2	1.67	0.73
1:I:282:ASP:OD1	1:I:282:ASP:N	2.20	0.73
2:L:17:ARG:NH2	2:L:53:THR:O	2.22	0.73
1:A:164:GLU:OE1	1:A:261:LYS:NZ	2.19	0.73
1:C:263:ALA:O	1:C:268:LYS:NZ	2.21	0.73
2:D:136:ASN:HD21	2:D:219:VAL:HG12	1.52	0.73
1:O:76:ASN:ND2	1:O:78:ASP:O	2.21	0.73
1:O:270:VAL:O	1:O:290:SER:N	2.21	0.73
2:P:191:SER:O	2:P:193:ARG:NH1	2.21	0.73
1:G:312:ASP:OD1	1:G:316:GLY:N	2.21	0.73
1:E:160:VAL:O	1:E:164:GLU:N	2.20	0.73
2:F:248:VAL:N	2:F:305:ASP:O	2.21	0.73
2:J:48:ASP:H	2:J:53:THR:HA	1.54	0.73
2:J:149:ASN:HD22	2:J:323:VAL:HG22	1.52	0.73
1:K:270:VAL:HG13	1:K:289:SER:HB2	1.69	0.73
1:C:349:CYS:O	1:C:353:PRO:N	2.22	0.73
2:D:6:ASN:HA	2:D:33:ASN:HB3	1.70	0.73
2:R:67:SER:HB3	2:R:72:VAL:HG22	0.75	0.73
2:R:238:ASN:O	2:R:315:ASN:ND2	2.21	0.73
2:P:19:TRP:CH2	2:P:68:VAL:HG22	2.23	0.73
1:G:316:GLY:O	1:G:320:ARG:NH1	2.21	0.73
2:H:96:GLU:OE2	2:H:98:THR:OG1	2.06	0.73
2:H:209:SER:HA	2:H:231:ALA:H	1.53	0.73
1:I:304:MET:H	1:K:169:LYS:HZ2	1.35	0.73
1:C:31:ASN:ND2	1:C:76:ASN:O	2.19	0.73
3:Q:401:NAD:N7N	3:Q:401:NAD:O1N	2.21	0.73
2:P:140:TYR:O	2:P:333:LYS:NZ	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:18:CYS:O	1:E:20:ARG:N	2.22	0.73
1:K:263:ALA:O	1:K:268:LYS:NZ	2.20	0.73
1:A:76:ASN:ND2	1:A:78:ASP:O	2.21	0.73
1:C:316:GLY:O	1:C:320:ARG:N	2.18	0.73
1:C:358:CYS:O	1:O:191:ARG:N	2.21	0.73
2:F:92:ASP:O	2:F:117:LYS:N	2.22	0.73
2:F:191:SER:O	2:F:193:ARG:NH1	2.21	0.73
2:R:175:MET:HG3	2:R:244:LEU:HD13	1.69	0.73
2:R:252:THR:H	2:R:304:ASP:HB3	1.53	0.73
2:P:142:HIS:CD2	2:P:335:GLN:H	2.07	0.73
1:G:169:LYS:HA	1:G:224:LYS:HB3	1.70	0.73
1:E:118:ILE:HD11	1:E:143:ILE:HG22	1.70	0.73
1:K:34:GLY:O	1:K:38:LYS:NZ	2.22	0.73
2:L:11:ILE:N	3:L:401:NAD:O2N	2.19	0.73
2:L:171:ILE:HD12	2:L:247:GLN:HG2	1.71	0.73
2:R:96:GLU:OE2	2:R:98:THR:OG1	2.06	0.73
1:G:129:VAL:N	1:G:133:ASN:OD1	2.21	0.73
1:G:239:VAL:HB	1:G:310:TRP:HA	1.71	0.73
2:F:252:THR:H	2:F:304:ASP:HB3	1.52	0.73
2:J:118:VAL:HB	2:J:146:ILE:HA	1.71	0.73
1:K:299:VAL:HG13	1:K:305:VAL:HG22	1.68	0.73
2:L:223:LEU:HA	2:L:227:LEU:HD23	1.71	0.73
1:C:65:SER:HA	1:C:70:PRO:HA	1.69	0.73
1:Q:9:GLY:O	1:Q:13:ARG:N	2.21	0.73
1:Q:213:ALA:HA	1:Q:216:LEU:HB2	1.70	0.73
2:R:87:GLY:N	2:R:113:ALA:O	2.22	0.73
2:P:50:ILE:HG23	2:P:286:ARG:HH11	1.51	0.73
1:G:110:GLN:OE1	1:G:111:ALA:N	2.22	0.73
1:G:178:TYR:HB3	1:G:233:PRO:HA	1.70	0.73
1:G:214:VAL:O	1:G:218:LEU:N	2.22	0.73
1:E:136:ASP:N	1:E:136:ASP:OD1	2.20	0.73
1:K:254:ASP:OD1	1:K:254:ASP:N	2.17	0.73
1:Q:110:GLN:OE1	1:Q:111:ALA:N	2.22	0.73
2:R:22:ARG:NH2	2:R:325:ASP:OD1	2.18	0.73
1:I:1:LEU:H	1:I:25:LEU:HA	1.53	0.72
2:L:149:ASN:OD1	2:L:150:ALA:N	2.19	0.72
1:Q:306:LYS:NZ	1:O:173:THR:OG1	2.22	0.72
2:P:10:ARG:O	2:P:14:ASN:N	2.15	0.72
2:H:16:LEU:CD1	2:H:45:LEU:HD21	2.19	0.72
2:H:31:VAL:HG22	2:H:74:LYS:CG	2.19	0.72
1:K:181:ASP:OD1	1:K:182:GLN:NE2	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:175:MET:HA	2:B:244:LEU:HA	1.71	0.72
1:C:348:PHE:O	1:C:352:ASN:N	2.21	0.72
2:D:17:ARG:O	2:D:21:GLY:N	2.19	0.72
2:R:67:SER:HB3	2:R:72:VAL:HG21	1.66	0.72
2:H:22:ARG:NH2	2:H:325:ASP:OD1	2.19	0.72
1:I:93:ILE:HD13	1:I:117:ILE:HG21	1.71	0.72
1:Q:129:VAL:N	1:Q:133:ASN:OD1	2.19	0.72
1:Q:194:ARG:HB3	1:Q:204:VAL:HG11	1.70	0.72
2:P:182:THR:HG23	2:P:185:GLN:HE22	1.54	0.72
2:H:11:ILE:HA	2:H:14:ASN:HB2	1.68	0.72
2:H:205:ILE:HG13	2:H:234:VAL:HA	1.70	0.72
1:I:0:LYS:NZ	1:I:22:ASP:O	2.23	0.72
1:I:176:HIS:HB3	1:I:231:ARG:HA	1.71	0.72
1:K:10:ARG:HA	1:K:13:ARG:HG3	1.70	0.72
2:B:10:ARG:N	3:B:401:NAD:O2A	2.22	0.72
2:D:184:ASP:OD2	2:D:185:GLN:NE2	2.19	0.72
1:O:297:THR:HG23	1:O:307:VAL:HA	1.72	0.72
1:G:236:ASN:OD1	1:G:313:ASN:N	2.19	0.72
1:G:263:ALA:HA	1:G:267:LEU:HB2	1.72	0.72
1:G:293:ASP:OD1	1:G:295:SER:OG	2.07	0.72
1:I:16:LEU:HD22	1:I:44:LEU:HD21	1.71	0.72
1:K:172:MET:HB3	1:K:242:LEU:HA	1.70	0.72
2:L:149:ASN:HD22	2:L:323:VAL:HG22	1.55	0.72
2:D:179:HIS:HB3	2:D:233:ARG:HG2	1.71	0.72
1:Q:15:PHE:O	1:Q:18(A):TRP:N	2.16	0.72
1:Q:135:LYS:O	1:Q:135:LYS:NZ	2.19	0.72
1:O:179:THR:OG1	1:O:181:ASP:OD1	2.06	0.72
1:G:15:PHE:HZ	1:G:322:VAL:HG13	1.55	0.72
1:I:165:LEU:HB3	1:I:248:LYS:HD2	1.72	0.72
1:I:287:ASP:HB3	1:I:319:GLN:HG3	1.71	0.72
1:K:17:ARG:NH1	1:K:44:LEU:O	2.22	0.72
1:C:16:LEU:O	1:C:18(B):HIS:N	2.22	0.72
1:C:172:MET:HB3	1:C:242:LEU:HA	1.72	0.72
2:H:238:ASN:O	2:H:315:ASN:ND2	2.23	0.72
1:E:209:GLY:O	1:E:213:ALA:N	2.23	0.72
2:F:56:ALA:HB1	2:F:69:ASP:CG	2.07	0.72
1:I:179:THR:H	1:I:182:GLN:NE2	1.88	0.72
1:K:357:GLU:O	1:E:190:HIS:ND1	2.22	0.72
1:G:89:ILE:HG21	1:G:92:VAL:HG22	1.72	0.72
2:H:130:THR:HG22	2:H:218:LEU:HD22	1.72	0.72
1:E:58:LYS:HA	1:E:58:LYS:HZ2	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:258:ASN:O	2:F:262:ARG:N	2.23	0.72
1:I:312:ASP:OD2	1:I:315:TRP:N	2.21	0.72
2:J:150:ALA:O	2:J:319:TYR:OH	2.08	0.72
1:A:222:LYS:NZ	1:G:123(A):SER:O	2.20	0.72
2:B:6:ASN:OD1	2:B:33:ASN:ND2	2.22	0.72
2:B:104:ARG:HH21	2:B:128:ILE:HA	1.54	0.72
2:D:179:HIS:O	2:D:234:VAL:N	2.22	0.72
1:Q:340:ALA:O	1:Q:344:PRO:N	2.22	0.72
1:O:160:VAL:O	1:O:164:GLU:N	2.22	0.72
1:G:10:ARG:HH12	1:G:48:SER:H	1.37	0.72
2:H:35:THR:CB	2:H:79:ARG:NH2	2.48	0.72
1:I:238:SER:HB2	1:I:311:TYR:CE2	2.25	0.72
1:A:259:PHE:O	1:A:263:ALA:N	2.17	0.72
2:B:136:ASN:N	2:B:136:ASN:OD1	2.23	0.72
1:C:160:VAL:HA	1:C:163:GLU:HG2	1.71	0.72
2:H:120:ILE:O	2:H:149:ASN:N	2.21	0.72
2:H:175:MET:HA	2:H:244:LEU:HB2	1.72	0.72
2:H:314:ASP:OD1	2:H:317:TRP:N	2.23	0.72
1:E:129:VAL:HB	1:E:132:VAL:HB	1.70	0.72
1:I:259:PHE:O	1:I:263:ALA:N	2.16	0.72
1:A:204:VAL:O	1:A:206:THR:OG1	2.08	0.72
2:D:149:ASN:HD22	2:D:323:VAL:HG22	1.54	0.72
2:R:136:ASN:N	2:R:136:ASN:OD1	2.22	0.72
1:G:117:ILE:HD13	1:G:144:ILE:HD11	1.71	0.72
2:H:136:ASN:OD1	2:H:136:ASN:N	2.21	0.72
2:L:208:THR:N	2:L:231:ALA:O	2.22	0.71
1:C:89:ILE:O	1:C:114:LYS:NZ	2.21	0.71
1:Q:171:THR:HG1	1:O:306:LYS:HZ3	1.37	0.71
2:R:15:PHE:HA	2:R:18:CYS:HB2	1.71	0.71
1:O:7:GLY:HA2	1:O:31:ASN:HB3	1.71	0.71
1:O:18:CYS:O	1:O:20:ARG:N	2.22	0.71
1:C:3:VAL:HG21	1:C:25:LEU:HB3	1.72	0.71
3:C:401:NAD:N7N	3:C:401:NAD:O1N	2.22	0.71
2:D:39:LYS:O	2:D:42:SER:OG	2.06	0.71
1:Q:28:VAL:O	1:Q:72:LYS:N	2.22	0.71
1:Q:178:TYR:HB3	1:Q:233:PRO:HA	1.70	0.71
2:R:187:LEU:HB2	1:O:184:LEU:HB2	1.71	0.71
2:R:205:ILE:HG13	2:R:234:VAL:HA	1.70	0.71
1:O:182:GLN:OE1	1:O:231:ARG:NH1	2.23	0.71
1:G:62:GLU:HB2	1:G:72:LYS:HZ2	1.54	0.71
1:E:238:SER:HB2	1:E:311:TYR:CE2	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:18:CYS:O	2:F:22:ARG:N	2.23	0.71
2:L:220:LEU:O	2:L:224:LYS:NZ	2.19	0.71
2:R:314:ASP:OD1	2:R:317:TRP:N	2.22	0.71
2:J:8:PHE:CZ	2:J:13:ARG:HG3	2.25	0.71
1:K:256:ASN:OD1	1:K:256:ASN:N	2.22	0.71
2:L:320:SER:O	2:L:324:VAL:N	2.18	0.71
1:A:16:LEU:O	1:A:18(B):HIS:N	2.19	0.71
2:B:150:ALA:O	2:B:319:TYR:OH	2.07	0.71
2:B:188:LEU:HA	2:B:200:ALA:HB2	1.71	0.71
2:B:279:PRO:HG2	2:D:195:LEU:HB2	1.72	0.71
1:O:209:GLY:O	1:O:213:ALA:N	2.24	0.71
1:G:127:THR:HG21	1:G:216:LEU:HB3	1.73	0.71
1:G:178:TYR:H	1:G:234:THR:H	1.38	0.71
2:J:166:GLN:OE1	2:J:167:LYS:NZ	2.24	0.71
1:K:31:ASN:ND2	1:K:76:ASN:O	2.22	0.71
1:K:149:CYS:HA	1:K:152:ASN:HB2	1.72	0.71
2:B:43:HIS:HA	2:B:46:LYS:HB3	1.71	0.71
1:C:176:HIS:N	1:C:230:LEU:O	2.22	0.71
1:Q:312:ASP:OD2	1:Q:315:TRP:N	2.22	0.71
2:R:240:SER:N	2:R:315:ASN:OD1	2.24	0.71
1:O:25:LEU:H	1:O:25:LEU:HD13	1.56	0.71
2:P:88:ASP:OD1	2:P:88:ASP:N	2.11	0.71
1:G:213:ALA:HA	1:G:216:LEU:HB2	1.72	0.71
2:F:46:LYS:O	2:F:54:PHE:N	2.22	0.71
2:J:82:VAL:HA	2:J:113:ALA:HB2	1.73	0.71
1:K:57:VAL:HA	1:K:66:ILE:HA	1.71	0.71
1:K:234:THR:OG1	1:K:284:ARG:NH2	2.23	0.71
1:C:256:ASN:O	1:C:260:ARG:N	2.16	0.71
1:C:340:ALA:O	1:C:347:ASP:N	2.21	0.71
1:Q:42:HIS:O	2:P:199:ARG:NH2	2.23	0.71
1:Q:169:LYS:HZ1	1:O:301:GLY:HA3	1.56	0.71
2:R:121:THR:HA	2:R:149:ASN:HB3	1.73	0.71
1:O:136:ASP:OD1	1:O:136:ASP:N	2.20	0.71
1:O:328:VAL:O	1:O:332:TRP:N	2.24	0.71
1:G:66:ILE:N	1:G:69:LYS:O	2.18	0.71
2:H:244:LEU:O	2:H:309:VAL:N	2.23	0.71
2:L:42:SER:HB3	2:L:66:ILE:HD13	1.72	0.71
2:B:86:TRP:NE1	2:B:110:HIS:O	2.24	0.71
1:C:327:LEU:HD11	1:C:331:LYS:HE3	1.71	0.71
1:Q:214:VAL:O	1:Q:218:LEU:N	2.21	0.71
2:R:185:GLN:HG3	2:R:197:ARG:HG2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:149:CYS:HB2	1:E:153:CYS:HB3	1.71	0.71
1:I:237:VAL:HG11	1:I:280:SER:HB2	1.72	0.71
1:K:263:ALA:HB2	1:K:271:LEU:HD23	1.72	0.71
1:A:205:PRO:HB2	1:C:296:LEU:HD12	1.73	0.71
2:B:10:ARG:O	2:B:14:ASN:N	2.19	0.71
1:C:19:GLY:O	1:C:21:LYS:NZ	2.22	0.71
1:C:263:ALA:HB2	1:C:271:LEU:HD23	1.73	0.71
2:D:178:THR:OG1	2:D:241:VAL:N	2.20	0.71
1:Q:129:VAL:HB	1:Q:133:ASN:HD21	1.55	0.71
1:Q:346:GLU:O	1:Q:350:LYS:N	2.20	0.71
1:I:8:PHE:O	1:I:13:ARG:NH1	2.24	0.71
2:J:138:GLU:OE1	2:J:139:GLY:N	2.22	0.71
2:B:172:LYS:NZ	2:D:306:MET:SD	2.64	0.71
2:B:210:THR:HG22	2:B:231:ALA:HB2	1.73	0.71
2:D:17:ARG:NH2	2:D:53:THR:O	2.22	0.71
2:D:71:LYS:NZ	2:D:72:VAL:O	2.23	0.71
1:O:36:GLY:O	1:O:39:SER:OG	2.09	0.71
2:P:258:ASN:O	2:P:262:ARG:NH1	2.23	0.71
1:K:4:ALA:HA	1:K:27:VAL:HG13	1.73	0.71
1:Q:78:ASP:OD2	1:Q:81:LYS:NZ	2.20	0.71
1:Q:117:ILE:HD13	1:Q:144:ILE:HD11	1.73	0.71
1:O:116:VAL:HB	1:O:143:ILE:HA	1.72	0.71
2:P:245:VAL:HG22	2:P:308:LYS:HA	1.72	0.71
2:H:252:THR:H	2:H:304:ASP:HB3	1.55	0.71
1:I:10:ARG:HG2	1:I:13:ARG:HH21	1.54	0.70
2:L:31:VAL:HG12	2:L:75:VAL:HA	1.73	0.70
2:D:217:ALA:O	2:D:224:LYS:NZ	2.20	0.70
1:Q:257:ASN:OD1	1:Q:260:ARG:NH1	2.24	0.70
2:F:238:ASN:HD22	2:F:282:SER:HB2	1.56	0.70
2:J:43:HIS:HA	2:J:46:LYS:HB3	1.71	0.70
1:K:20:ARG:HA	1:K:21:LYS:HZ3	1.56	0.70
1:K:65:SER:HA	1:K:70:PRO:HA	1.73	0.70
1:A:190:HIS:HA	1:G:357:GLU:HA	1.74	0.70
1:A:345:LEU:O	1:A:349:CYS:N	2.22	0.70
2:B:40:GLN:HE22	1:O:346:GLU:H	1.38	0.70
2:B:292:SER:HA	2:B:313:TYR:HA	1.72	0.70
1:C:169:LYS:HA	1:C:224:LYS:HG3	1.72	0.70
2:R:175:MET:HA	2:R:244:LEU:HB2	1.72	0.70
1:G:281:VAL:HG21	2:H:49:SER:CB	2.21	0.70
2:H:32:ILE:O	2:H:75:VAL:CB	2.39	0.70
2:F:10:ARG:HH11	2:F:13:ARG:HH11	1.36	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:142:HIS:HD2	2:F:336:ALA:H	1.36	0.70
1:I:179:THR:OG1	1:I:182:GLN:OE1	2.10	0.70
2:J:17:ARG:NH2	2:J:53:THR:O	2.23	0.70
2:D:205:ILE:HG23	2:D:207:PRO:HD3	1.71	0.70
1:Q:149:CYS:SG	1:Q:150:THR:N	2.62	0.70
1:O:282:ASP:OD1	1:O:282:ASP:N	2.23	0.70
1:E:139:HIS:HE1	1:E:332:TRP:CD1	2.09	0.70
1:I:299:VAL:HG23	1:I:305:VAL:HG13	1.74	0.70
2:J:210:THR:HG22	2:J:231:ALA:HB2	1.73	0.70
2:J:279:PRO:HG2	2:L:195:LEU:HB2	1.73	0.70
1:K:179:THR:OG1	1:K:231:ARG:NH2	2.25	0.70
2:B:50:ILE:HD11	2:B:237:PRO:HB2	1.73	0.70
2:R:47:TYR:HB2	1:O:197:ARG:HH12	1.54	0.70
2:R:120:ILE:O	2:R:149:ASN:N	2.22	0.70
2:R:142:HIS:HE1	2:R:334:TRP:CE3	2.09	0.70
2:P:176:THR:O	2:P:243:ASP:N	2.24	0.70
1:G:18:CYS:O	1:G:20:ARG:N	2.23	0.70
1:G:326:ASP:O	1:G:330:ASN:ND2	2.24	0.70
1:I:135:LYS:O	1:I:135:LYS:NZ	2.19	0.70
2:J:136:ASN:N	2:J:136:ASN:OD1	2.24	0.70
2:J:173:GLY:N	2:J:226:LYS:O	2.25	0.70
1:A:181:ASP:OD2	1:A:231:ARG:NH1	2.23	0.70
2:B:333:LYS:O	2:B:335:GLN:NE2	2.25	0.70
1:C:29:VAL:HG11	1:C:87:LEU:HD13	1.72	0.70
1:C:234:THR:OG1	1:C:284:ARG:NH2	2.25	0.70
1:Q:239:VAL:HB	1:Q:310:TRP:HA	1.72	0.70
2:R:14:ASN:O	2:R:18:CYS:N	2.20	0.70
2:R:46:LYS:O	2:R:53:THR:OG1	2.07	0.70
1:O:236:ASN:ND2	1:O:312:ASP:OD2	2.24	0.70
1:O:320:ARG:NE	1:O:323:ASP:OD2	2.22	0.70
1:G:148:SER:HG	1:G:150:THR:HG1	1.38	0.70
2:H:90:GLY:O	2:H:116:LYS:NZ	2.25	0.70
2:F:258:ASN:O	2:F:262:ARG:NH1	2.23	0.70
2:J:282:SER:OG	2:J:286:ARG:NH2	2.25	0.70
2:J:292:SER:HA	2:J:313:TYR:HA	1.74	0.70
2:J:308:LYS:HZ2	2:L:230:ILE:HG12	1.57	0.70
2:B:138:GLU:OE1	2:B:139:GLY:N	2.22	0.70
1:C:254:ASP:OD1	1:C:254:ASP:N	2.17	0.70
2:D:68:VAL:HG13	2:D:71:LYS:HB3	1.74	0.70
1:Q:118:ILE:HB	1:Q:145:SER:HA	1.73	0.70
1:Q:298:MET:O	1:Q:306:LYS:N	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:8:PHE:O	2:R:13:ARG:NH1	2.24	0.70
1:O:1:LEU:HB2	1:O:25:LEU:HB3	1.73	0.70
3:P:401:NAD:H2N	3:P:401:NAD:H52N	1.74	0.70
2:H:46:LYS:HE2	2:H:57:ASP:HB2	1.72	0.70
1:E:115:LYS:NZ	1:E:139(A):ASP:OD1	2.20	0.70
1:E:245:ASN:HB3	1:E:304:MET:HE3	1.72	0.70
1:E:291:THR:O	1:E:310:TRP:N	2.23	0.70
2:F:142:HIS:CD2	2:F:335:GLN:H	2.08	0.70
2:J:6:ASN:HA	2:J:33:ASN:HB3	1.74	0.70
2:J:6:ASN:OD1	2:J:33:ASN:ND2	2.25	0.70
1:A:136:ASP:OD1	1:A:136:ASP:N	2.19	0.70
1:C:66:ILE:HB	1:C:69:LYS:HB2	1.73	0.70
2:R:258:ASN:O	2:R:262:ARG:N	2.22	0.70
1:O:243:VAL:HG12	1:O:304:MET:HB3	1.73	0.70
2:F:251:LYS:NZ	2:F:303:GLY:O	2.21	0.70
1:K:176:HIS:N	1:K:230:LEU:O	2.24	0.70
2:L:39:LYS:O	2:L:42:SER:OG	2.04	0.70
2:L:164:LEU:O	2:L:168:PHE:N	2.25	0.70
2:L:217:ALA:O	2:L:224:LYS:NZ	2.21	0.70
2:B:221:PRO:HA	2:B:224:LYS:HE2	1.71	0.70
1:C:171:THR:OG1	1:C:172:MET:N	2.23	0.70
2:R:130:THR:HG22	2:R:218:LEU:HD22	1.73	0.70
2:R:162:LYS:O	2:R:166:GLN:N	2.24	0.70
2:R:165:ASP:OD2	2:R:222:ASN:ND2	2.24	0.70
1:G:78:ASP:OD2	1:G:81:LYS:NZ	2.19	0.70
2:H:105:ASP:O	2:H:109:LYS:N	2.17	0.70
2:H:182:THR:N	2:H:185:GLN:OE1	2.24	0.70
1:I:222:LYS:NZ	1:Q:123(A):SER:O	2.20	0.70
2:J:176:THR:HG22	2:J:177:THR:H	1.56	0.70
2:L:205:ILE:HG23	2:L:207:PRO:HD3	1.73	0.70
2:B:82:VAL:HA	2:B:113:ALA:HB2	1.74	0.70
1:C:272:ASP:N	1:C:290:SER:O	2.24	0.70
1:Q:179:THR:OG1	1:Q:181:ASP:OD1	2.09	0.70
1:Q:273:VAL:HG22	1:Q:292:ILE:HB	1.73	0.70
1:O:42:HIS:O	1:O:46:TYR:N	2.20	0.70
1:O:160:VAL:HG21	1:O:267:LEU:HD11	1.73	0.70
2:P:22:ARG:NH1	2:P:328:ASP:OD2	2.25	0.70
2:H:50:ILE:HD13	2:H:238:ASN:ND2	2.06	0.70
2:F:167:LYS:O	2:F:250:LYS:NZ	2.23	0.70
2:J:333:LYS:O	2:J:335:GLN:NE2	2.24	0.70
1:K:272:ASP:N	1:K:290:SER:O	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:46:LYS:NZ	2:L:53:THR:OG1	2.22	0.70
2:D:88:ASP:OD1	2:D:88:ASP:N	2.20	0.70
1:Q:178:TYR:H	1:Q:234:THR:H	1.38	0.70
2:R:86:TRP:CD1	2:R:113:ALA:HB3	2.27	0.70
1:O:129:VAL:H	1:O:133:ASN:HD21	1.38	0.70
1:G:60:ILE:HG13	1:G:65:SER:HB3	1.72	0.70
2:H:149:ASN:OD1	2:H:150:ALA:N	2.24	0.70
1:K:242:LEU:HB3	1:K:307:VAL:HB	1.73	0.69
1:A:47:ASP:OD1	1:A:51:GLY:N	2.25	0.69
2:B:6:ASN:HA	2:B:33:ASN:HB3	1.74	0.69
1:C:101:ASP:OD1	1:C:104:GLY:N	2.25	0.69
1:C:256:ASN:OD1	1:C:256:ASN:N	2.23	0.69
2:D:30:VAL:HA	2:D:73:ILE:HG12	1.72	0.69
2:P:216:VAL:HG22	2:P:223:LEU:HB3	1.73	0.69
1:E:139:HIS:HE1	1:E:332:TRP:HD1	1.39	0.69
2:J:152:CYS:O	2:J:156:CYS:N	2.24	0.69
1:K:246:ILE:H	1:K:303:ASP:HA	1.58	0.69
2:L:132:VAL:H	2:L:136:ASN:HB2	1.57	0.69
2:L:252:THR:OG1	2:L:253:PHE:N	2.25	0.69
1:A:32:ASP:HB3	1:A:73:VAL:HG13	1.74	0.69
2:P:180:SER:HA	2:P:236:THR:HG22	1.74	0.69
1:E:160:VAL:HG12	1:E:164:GLU:HG3	1.73	0.69
2:F:89:MET:SD	2:F:89:MET:N	2.65	0.69
1:I:181:ASP:O	1:I:195:ARG:NH1	2.25	0.69
2:L:98:THR:HA	3:L:401:NAD:H52A	1.74	0.69
2:L:275:VAL:HA	2:L:294:ILE:H	1.56	0.69
2:D:39:LYS:HD2	2:D:40:GLN:H	1.55	0.69
2:D:204:ASN:N	2:D:204:ASN:OD1	2.26	0.69
2:D:220:LEU:O	2:D:224:LYS:NZ	2.20	0.69
1:Q:324:LEU:O	1:Q:328:VAL:N	2.21	0.69
2:P:89:MET:N	2:P:89:MET:SD	2.65	0.69
2:P:178:THR:OG1	2:P:241:VAL:N	2.24	0.69
1:G:205:PRO:HA	1:G:230:LEU:HA	1.74	0.69
2:H:121:THR:HA	2:H:149:ASN:HB3	1.74	0.69
2:F:142:HIS:HB2	2:F:333:LYS:HE2	1.74	0.69
2:J:266:ASP:O	2:J:270:LYS:NZ	2.24	0.69
1:K:47:ASP:OD1	1:K:51:GLY:N	2.26	0.69
1:A:194:ARG:NH2	1:C:278:LEU:O	2.25	0.69
2:D:207:PRO:HA	2:D:232:LEU:HA	1.75	0.69
1:Q:190:HIS:CD2	1:Q:195:ARG:HB2	2.27	0.69
2:R:315:ASN:OD1	2:R:315:ASN:N	2.20	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:236:ASN:HD21	1:O:315:TRP:H	1.41	0.69
2:H:179:HIS:HB3	2:H:233:ARG:HA	1.75	0.69
1:E:184:LEU:HG	1:E:185:LEU:HG	1.73	0.69
1:I:58:LYS:HG3	1:I:60:ILE:HG12	1.75	0.69
1:I:192:ASP:O	2:L:40:GLN:NE2	2.25	0.69
2:J:30:VAL:O	2:J:74:LYS:N	2.22	0.69
2:B:18:CYS:O	2:B:22:ARG:N	2.26	0.69
2:B:166:GLN:OE1	2:B:167:LYS:NZ	2.26	0.69
1:Q:218:LEU:HB3	1:Q:221:LEU:HB2	1.74	0.69
1:O:241:ASP:OD1	1:O:307:VAL:N	2.24	0.69
2:P:276:CYS:SG	2:P:277:ASP:N	2.65	0.69
1:E:42:HIS:O	1:E:46:TYR:N	2.18	0.69
1:E:271:LEU:HD23	1:E:292:ILE:HD11	1.74	0.69
2:F:180:SER:HA	2:F:236:THR:HG22	1.73	0.69
1:I:304:MET:HB3	1:K:169:LYS:HZ2	1.56	0.69
2:J:31:VAL:HG13	2:J:74:LYS:HB2	1.73	0.69
1:K:162:ASP:O	1:K:166:GLY:N	2.25	0.69
1:A:329:ALA:HA	1:A:332:TRP:HB2	1.74	0.69
2:D:171:ILE:HD12	2:D:247:GLN:HG2	1.73	0.69
2:D:252:THR:OG1	2:D:253:PHE:N	2.25	0.69
2:J:10:ARG:HA	2:J:13:ARG:HB2	1.73	0.69
1:K:312:ASP:OD1	1:K:316:GLY:N	2.26	0.69
2:L:20:HIS:CE1	2:L:69:ASP:OD1	2.45	0.69
2:L:134:GLY:O	2:L:162:LYS:NZ	2.20	0.69
1:A:3:VAL:N	1:A:26:ASP:O	2.25	0.69
1:A:169:LYS:HE3	1:C:304:MET:HB2	1.74	0.69
3:C:401:NAD:H2N	3:C:401:NAD:O5D	1.92	0.69
2:D:216:VAL:HG23	2:D:220:LEU:HD12	1.73	0.69
2:R:174:THR:HG21	2:P:245:VAL:HG11	1.73	0.69
1:G:218:LEU:HB3	1:G:221:LEU:HB2	1.75	0.69
1:E:256:ASN:HA	1:E:259:PHE:HB2	1.73	0.69
2:F:137:GLU:OE1	2:F:137:GLU:N	2.26	0.69
2:F:172:LYS:NZ	2:F:247:GLN:OE1	2.23	0.69
2:F:276:CYS:SG	2:F:277:ASP:N	2.65	0.69
1:I:79:PRO:HG2	1:I:108:HIS:CD2	2.28	0.69
1:I:204:VAL:O	1:I:206:THR:OG1	2.09	0.69
1:I:315:TRP:O	1:I:318:SER:OG	2.09	0.69
2:J:105:ASP:OD2	2:J:109:LYS:NZ	2.25	0.69
2:J:175:MET:HA	2:J:244:LEU:HA	1.74	0.69
2:L:46:LYS:O	2:L:53:THR:OG1	2.06	0.69
2:B:31:VAL:HG13	2:B:74:LYS:HB2	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:359:LYS:HA	1:O:191:ARG:HG2	1.75	0.69
2:D:30:VAL:O	2:D:74:LYS:N	2.26	0.69
2:D:60:THR:HB	2:D:66:ILE:HG23	1.75	0.69
2:D:164:LEU:O	2:D:168:PHE:N	2.25	0.69
1:Q:0:LYS:N	1:Q:24:PRO:O	2.25	0.69
1:Q:328:VAL:HA	1:Q:331:LYS:HB2	1.74	0.69
2:R:80:ASN:HD21	2:R:82:VAL:HB	1.57	0.69
1:O:6:ASN:N	1:O:93:ILE:O	2.22	0.69
2:P:41:ALA:HA	2:P:44:LEU:HD12	1.73	0.69
2:P:142:HIS:HB2	2:P:333:LYS:HE2	1.72	0.69
2:P:160:PHE:HB2	2:P:261:PHE:HE2	1.55	0.69
1:G:42:HIS:O	2:F:199:ARG:NH2	2.24	0.69
2:H:15:PHE:HA	2:H:18:CYS:HB2	1.73	0.69
2:H:165:ASP:OD2	2:H:222:ASN:ND2	2.25	0.69
1:E:166:GLY:O	1:E:247:GLU:N	2.23	0.69
2:F:211:GLY:O	2:F:215:ALA:N	2.26	0.69
1:I:134:GLU:OE1	1:I:135:LYS:N	2.22	0.69
1:I:161:LEU:O	1:I:166:GLY:N	2.24	0.69
1:K:259:PHE:O	1:K:263:ALA:N	2.19	0.69
1:Q:236:ASN:OD1	1:Q:313:ASN:N	2.22	0.69
2:R:88:ASP:OD1	2:R:88:ASP:N	2.23	0.69
1:O:149:CYS:HB2	1:O:153:CYS:HB3	1.74	0.69
1:O:169:LYS:HA	1:O:224:LYS:HB3	1.75	0.69
2:P:6:ASN:O	2:P:97:GLY:N	2.22	0.69
1:G:115:LYS:HA	1:G:142:ASN:HB3	1.74	0.69
2:H:31:VAL:CG2	2:H:74:LYS:CG	2.71	0.69
2:H:239:VAL:HG22	2:H:314:ASP:HA	1.75	0.69
1:E:25:LEU:HD22	1:E:25:LEU:H	1.57	0.69
1:E:129:VAL:H	1:E:133:ASN:ND2	1.91	0.69
1:E:292:ILE:HA	1:E:309:ALA:HA	1.75	0.69
2:F:22:ARG:NH1	2:F:328:ASP:OD2	2.25	0.69
2:F:281:VAL:O	2:F:284:ASP:N	2.26	0.69
1:I:84:TRP:HB3	1:I:89:ILE:HB	1.75	0.69
1:I:194:ARG:NH2	1:K:278:LEU:O	2.26	0.69
2:J:129:PRO:HD2	2:J:147:ILE:HA	1.74	0.69
2:J:132:VAL:O	2:J:137:GLU:N	2.26	0.69
2:J:283:ILE:HA	2:J:286:ARG:HE	1.57	0.69
1:A:37:VAL:O	1:A:41:THR:N	2.16	0.69
1:A:58:LYS:HG3	1:A:60:ILE:HG12	1.75	0.69
2:B:42:SER:O	2:B:46:LYS:N	2.19	0.69
2:B:151:SER:OG	2:B:153:THR:OG1	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:179:THR:O	1:Q:182:GLN:NE2	2.26	0.69
1:Q:253:GLU:OE1	1:Q:256:ASN:ND2	2.26	0.69
2:P:19:TRP:HH2	2:P:68:VAL:HG22	1.58	0.69
2:H:34:ASP:CB	2:H:75:VAL:CG2	2.71	0.69
2:H:162:LYS:O	2:H:166:GLN:N	2.24	0.69
2:H:240:SER:N	2:H:315:ASN:OD1	2.24	0.69
1:K:16:LEU:HA	1:K:18(A):TRP:HB3	1.75	0.68
2:B:105:ASP:OD2	2:B:109:LYS:NZ	2.26	0.68
2:B:289:ASP:OD1	2:B:317:TRP:NE1	2.26	0.68
2:D:320:SER:O	2:D:324:VAL:N	2.18	0.68
1:Q:13:ARG:HD3	1:Q:43:LEU:HB3	1.75	0.68
2:H:81:PRO:HB2	2:H:109:LYS:HB3	1.73	0.68
2:H:185:GLN:HG3	2:H:197:ARG:HG2	1.74	0.68
1:I:168:VAL:O	1:I:224:LYS:NZ	2.20	0.68
1:I:329:ALA:HA	1:I:332:TRP:HB2	1.73	0.68
1:K:29:VAL:HG11	1:K:87:LEU:HD13	1.74	0.68
1:K:160:VAL:HA	1:K:163:GLU:HG2	1.75	0.68
1:K:175:THR:HB	1:K:232:VAL:HG21	1.75	0.68
1:K:359:LYS:O	1:E:195:ARG:NH1	2.26	0.68
2:L:43:HIS:O	2:L:47:TYR:N	2.26	0.68
2:L:224:LYS:H	2:L:226:LYS:HZ2	1.42	0.68
1:C:176:HIS:HB3	1:C:231:ARG:HD2	1.74	0.68
2:D:322:ARG:NE	2:D:325:ASP:OD2	2.26	0.68
2:R:58:VAL:HB	2:R:68:VAL:HB	1.75	0.68
1:O:148:SER:O	1:O:152:ASN:N	2.22	0.68
1:O:165:LEU:HA	1:O:248:LYS:HD2	1.74	0.68
1:O:178:TYR:HD2	1:O:233:PRO:HA	1.57	0.68
2:P:59:LYS:HA	2:P:59:LYS:NZ	2.08	0.68
1:G:161:LEU:O	1:G:165:LEU:N	2.23	0.68
1:G:238:SER:N	1:G:313:ASN:OD1	2.26	0.68
1:E:263:ALA:HA	1:E:267:LEU:HB2	1.75	0.68
2:F:217:ALA:HB2	2:F:224:LYS:HB3	1.74	0.68
1:I:160:VAL:O	1:I:164:GLU:N	2.26	0.68
1:K:299:VAL:HA	1:K:305:VAL:HA	1.75	0.68
1:Q:157:PHE:HA	1:Q:271:LEU:HD21	1.76	0.68
2:R:239:VAL:HG22	2:R:314:ASP:HA	1.75	0.68
1:O:2:LYS:HB3	1:O:89:ILE:HD13	1.74	0.68
1:O:256:ASN:HA	1:O:259:PHE:HB2	1.76	0.68
1:G:194:ARG:HB3	1:G:204:VAL:HG11	1.74	0.68
2:F:6:ASN:O	2:F:97:GLY:N	2.23	0.68
1:A:312:ASP:OD2	1:A:315:TRP:N	2.25	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:58:LYS:HB3	1:C:65:SER:HB3	1.75	0.68
1:Q:62:GLU:OE1	1:Q:72:LYS:NZ	2.25	0.68
1:Q:147:ALA:O	1:Q:317:TYR:OH	2.10	0.68
1:O:267:LEU:HB3	1:O:271:LEU:HD13	1.76	0.68
2:P:251:LYS:NZ	2:P:303:GLY:O	2.21	0.68
2:H:142:HIS:HE1	2:H:334:TRP:CE3	2.12	0.68
2:F:222:ASN:O	2:F:226:LYS:NZ	2.25	0.68
1:I:362:GLU:H	1:Q:195:ARG:NH1	1.91	0.68
2:J:293:THR:HB	2:J:312:TRP:HB2	1.75	0.68
1:K:6:ASN:O	1:K:95:GLY:N	2.27	0.68
2:B:152:CYS:O	2:B:156:CYS:N	2.25	0.68
2:B:189:ASP:OD2	1:C:10:ARG:NH1	2.25	0.68
1:C:300:MET:N	1:C:304:MET:O	2.23	0.68
2:R:173:GLY:HA3	2:R:227:LEU:HD13	1.75	0.68
2:H:31:VAL:CG2	2:H:74:LYS:HZ2	2.06	0.68
1:E:6:ASN:HB3	1:E:94:GLU:HA	1.76	0.68
1:E:256:ASN:HB2	1:E:260:ARG:HH21	1.56	0.68
2:F:38:VAL:CG2	2:F:63:ASP:OD2	2.40	0.68
1:I:3:VAL:N	1:I:26:ASP:O	2.27	0.68
2:J:142:HIS:HB2	2:J:333:LYS:HE2	1.74	0.68
2:L:33:ASN:HA	2:L:76:VAL:O	1.94	0.68
2:L:216:VAL:HG23	2:L:220:LEU:HD12	1.73	0.68
1:A:160:VAL:O	1:A:164:GLU:N	2.24	0.68
1:A:191:ARG:NH2	1:G:358:CYS:O	2.25	0.68
1:A:354:ALA:HB1	1:G:77:ARG:HH21	1.58	0.68
2:B:188:LEU:HD22	1:C:180:GLY:H	1.58	0.68
1:C:190:HIS:HA	1:O:358:CYS:HA	1.75	0.68
1:C:194:ARG:HD2	1:C:205:PRO:HD2	1.75	0.68
2:R:60:THR:HB	2:R:66:ILE:HA	1.76	0.68
2:F:48:ASP:OD2	2:F:51:LEU:N	2.25	0.68
2:F:50:ILE:HG23	2:F:286:ARG:HH11	1.58	0.68
1:K:261:LYS:O	1:K:265:GLY:N	2.27	0.68
2:L:29:VAL:O	2:L:73:ILE:CG2	2.41	0.68
2:B:132:VAL:O	2:B:137:GLU:N	2.26	0.68
1:O:1:LEU:H	1:O:25:LEU:HA	1.58	0.68
2:P:222:ASN:O	2:P:226:LYS:NZ	2.26	0.68
2:P:321:GLN:O	2:P:325:ASP:N	2.18	0.68
1:G:162:ASP:O	1:G:166:GLY:N	2.27	0.68
1:G:281:VAL:HG21	2:H:49:SER:HB3	1.74	0.68
2:H:31:VAL:HG21	2:H:74:LYS:HD2	1.76	0.68
1:E:32:ASP:N	1:E:74:VAL:O	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:90:ASP:HA	1:I:114:LYS:HG2	1.75	0.68
2:L:153:THR:OG1	2:L:154:THR:N	2.26	0.68
2:L:289:ASP:O	2:L:322:ARG:NH1	2.27	0.68
2:B:129:PRO:HD2	2:B:147:ILE:HA	1.75	0.68
1:C:361:TYR:O	1:O:195:ARG:NH1	2.21	0.68
1:O:84:TRP:O	1:O:88:GLY:N	2.26	0.68
2:P:18:CYS:O	2:P:22:ARG:N	2.20	0.68
1:I:203:ILE:HG13	1:I:232:VAL:HA	1.74	0.68
1:K:78:ASP:OD2	1:K:81:LYS:NZ	2.22	0.68
1:A:17:ARG:O	1:A:19:GLY:N	2.24	0.68
2:B:17:ARG:NH2	2:B:53:THR:O	2.27	0.68
1:Q:162:ASP:O	1:Q:166:GLY:N	2.27	0.68
2:R:123:PRO:O	2:R:125:LYS:NZ	2.26	0.68
2:R:244:LEU:O	2:R:309:VAL:N	2.23	0.68
1:G:60:ILE:HG22	1:G:60(A):ASP:H	1.59	0.68
1:G:206:THR:N	1:G:229:ALA:O	2.27	0.68
1:E:165:LEU:HA	1:E:248:LYS:HD2	1.76	0.68
1:I:245:ASN:ND2	1:K:304:MET:SD	2.67	0.68
2:J:171:ILE:HD12	2:J:247:GLN:HG2	1.76	0.68
1:K:30:VAL:H	1:K:73:VAL:HA	1.58	0.68
2:B:176:THR:HG22	2:B:177:THR:H	1.57	0.68
2:B:299:THR:HG22	2:B:309:VAL:HA	1.75	0.68
1:C:6:ASN:O	1:C:95:GLY:N	2.27	0.68
1:C:130:VAL:HG21	1:C:323:ASP:HB2	1.75	0.68
2:P:6:ASN:OD1	2:P:7:GLY:N	2.27	0.68
2:P:92:ASP:O	2:P:117:LYS:N	2.27	0.68
1:G:253:GLU:OE2	1:G:260:ARG:NH2	2.25	0.68
1:I:1:LEU:O	1:I:26:ASP:N	2.27	0.67
2:J:157:LEU:HD21	2:J:212:ALA:HB1	1.75	0.67
2:L:184:ASP:O	2:L:186:ARG:NH1	2.27	0.67
2:B:157:LEU:HD21	2:B:212:ALA:HB1	1.76	0.67
2:B:253:PHE:HE2	2:B:255:GLU:HB3	1.59	0.67
1:C:4:ALA:HA	1:C:27:VAL:HG13	1.75	0.67
1:C:236:ASN:ND2	1:C:312:ASP:OD2	2.28	0.67
1:Q:4:ALA:HA	1:Q:27:VAL:HG13	1.75	0.67
1:Q:306:LYS:HE2	1:O:228:ILE:HG23	1.76	0.67
1:O:134:GLU:OE1	1:O:134:GLU:N	2.23	0.67
2:P:167:LYS:O	2:P:250:LYS:NZ	2.23	0.67
2:P:258:ASN:O	2:P:262:ARG:N	2.25	0.67
1:G:257:ASN:OD1	1:G:260:ARG:NH1	2.26	0.67
2:F:17:ARG:NH2	2:F:53:THR:O	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:274:CYS:N	1:I:292:ILE:O	2.27	0.67
2:J:86:TRP:NE1	2:J:110:HIS:O	2.27	0.67
2:J:160:PHE:O	2:J:164:LEU:N	2.25	0.67
2:J:255:GLU:OE2	2:J:262:ARG:NH1	2.23	0.67
1:A:135:LYS:NZ	1:A:137:TYR:O	2.27	0.67
2:B:26:PRO:HB2	2:B:331:ALA:HB1	1.76	0.67
2:B:66:ILE:N	2:B:73:ILE:O	2.28	0.67
1:C:242:LEU:HB3	1:C:307:VAL:HB	1.76	0.67
2:D:30:VAL:HG23	2:D:31:VAL:HG23	1.76	0.67
2:D:39:LYS:NZ	1:G:342:GLY:O	2.27	0.67
1:Q:42:HIS:CD2	2:P:195:LEU:HB3	2.29	0.67
2:P:137:GLU:OE1	2:P:137:GLU:N	2.26	0.67
2:P:211:GLY:O	2:P:215:ALA:N	2.26	0.67
1:G:179:THR:N	1:G:182:GLN:OE1	2.26	0.67
1:G:198:ALA:HB3	1:G:201:LEU:HD11	1.74	0.67
2:H:187:LEU:HD23	1:E:180:GLY:HA2	1.74	0.67
1:E:121:PRO:HG3	1:E:148:SER:H	1.59	0.67
1:E:183:ARG:NH2	1:E:188:SER:O	2.26	0.67
1:E:253:GLU:O	1:E:260:ARG:NH2	2.27	0.67
1:E:297:THR:OG1	1:E:308:VAL:N	2.25	0.67
2:F:46:LYS:HZ1	2:F:53:THR:HG1	1.42	0.67
2:B:154:THR:HG23	2:B:212:ALA:HA	1.74	0.67
1:C:319:GLN:O	1:C:319:GLN:NE2	2.28	0.67
1:Q:41:THR:O	1:Q:45:LYS:N	2.25	0.67
2:R:17:ARG:NH1	2:R:52:GLY:O	2.25	0.67
2:R:149:ASN:OD1	2:R:150:ALA:N	2.27	0.67
2:R:162:LYS:HB2	2:R:220:LEU:HD11	1.76	0.67
2:P:179:HIS:O	2:P:234:VAL:N	2.15	0.67
1:G:226:ASN:HD22	1:E:300:MET:HA	1.59	0.67
1:I:46:TYR:O	2:L:199:ARG:NH1	2.27	0.67
1:A:41:THR:O	1:A:45:LYS:N	2.22	0.67
1:C:168:VAL:HG12	1:C:169:LYS:HG3	1.76	0.67
1:O:261:LYS:O	1:O:265:GLY:N	2.28	0.67
1:E:299:VAL:HG12	1:E:305:VAL:HA	1.75	0.67
2:F:90:GLY:O	2:F:116:LYS:NZ	2.26	0.67
2:L:32:ILE:O	2:L:75:VAL:CA	2.42	0.67
1:A:108:HIS:N	1:A:108:HIS:CD2	2.61	0.67
2:B:140:TYR:OH	2:B:142:HIS:ND1	2.27	0.67
2:B:182:THR:OG1	2:B:185:GLN:NE2	2.28	0.67
1:C:13:ARG:NH2	1:C:46:TYR:O	2.28	0.67
1:C:258:ALA:O	1:C:262:ALA:N	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:3:VAL:HG22	2:P:93:LEU:HB3	1.76	0.67
1:G:13:ARG:HD3	1:G:43:LEU:HB3	1.77	0.67
2:F:238:ASN:O	2:F:315:ASN:ND2	2.27	0.67
2:J:154:THR:HG23	2:J:212:ALA:HA	1.77	0.67
2:L:109:LYS:HA	2:L:112:GLN:HB2	1.76	0.67
2:L:210:THR:HG23	2:L:213:ALA:H	1.60	0.67
1:A:235:PRO:HG2	1:A:284:ARG:HH12	1.59	0.67
1:A:315:TRP:O	1:A:318:SER:OG	2.09	0.67
2:B:142:HIS:CE1	2:B:334:TRP:HA	2.29	0.67
1:C:177:SER:HA	1:C:234:THR:HG23	1.76	0.67
1:Q:41:THR:HG21	1:Q:59:ILE:HG12	1.77	0.67
2:R:6:ASN:HA	2:R:33:ASN:HB3	1.77	0.67
2:P:46:LYS:O	2:P:54:PHE:N	2.23	0.67
2:H:258:ASN:O	2:H:262:ARG:N	2.22	0.67
1:E:36:GLY:O	1:E:39:SER:OG	2.11	0.67
2:F:176:THR:O	2:F:243:ASP:N	2.23	0.67
1:K:212:LYS:HA	1:K:225:LEU:HD12	1.76	0.67
2:L:106:GLY:HA2	2:L:109:LYS:HZ3	1.60	0.67
1:A:135:LYS:NZ	1:A:135:LYS:O	2.19	0.67
2:B:30:VAL:O	2:B:74:LYS:N	2.24	0.67
2:B:274:SER:HB3	2:B:290:VAL:HG11	1.75	0.67
1:C:98:VAL:HG13	1:O:354:ALA:HB3	1.76	0.67
1:Q:161:LEU:O	1:Q:165:LEU:N	2.26	0.67
1:G:315:TRP:O	1:G:318:SER:OG	2.13	0.67
2:F:157:LEU:HD21	2:F:212:ALA:HB1	1.76	0.67
2:F:178:THR:OG1	2:F:241:VAL:N	2.27	0.67
2:J:10:ARG:N	3:J:401:NAD:O2A	2.28	0.67
2:J:142:HIS:CE1	2:J:334:TRP:HA	2.29	0.67
2:J:184:ASP:OD2	2:J:184:ASP:N	2.26	0.67
1:K:58:LYS:HZ1	1:K:59:ILE:H	1.41	0.67
1:K:62:GLU:OE2	1:K:63:THR:OG1	2.13	0.67
1:A:161:LEU:O	1:A:166:GLY:N	2.14	0.67
1:C:78:ASP:OD2	1:C:81:LYS:NZ	2.21	0.67
2:D:222:ASN:O	2:D:226:LYS:NZ	2.26	0.67
2:D:259:ALA:HA	2:D:262:ARG:HD2	1.75	0.67
1:O:31:ASN:ND2	1:O:76:ASN:O	2.27	0.67
2:P:272:ILE:O	2:P:322:ARG:NH1	2.28	0.67
2:P:281:VAL:O	2:P:284:ASP:N	2.26	0.67
1:G:332:TRP:CG	1:G:333:PRO:HD2	2.29	0.67
2:H:206:VAL:N	2:H:233:ARG:O	2.24	0.67
1:E:256:ASN:O	1:E:260:ARG:N	2.22	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:41:THR:O	1:I:45:LYS:N	2.22	0.67
1:I:47:ASP:OD1	1:I:51:GLY:N	2.28	0.67
1:I:118:ILE:HD11	1:I:143:ILE:HG22	1.77	0.67
1:K:345:LEU:O	1:K:349:CYS:N	2.28	0.67
2:L:32:ILE:HG22	2:L:75:VAL:HG21	1.70	0.67
2:L:32:ILE:HG23	2:L:75:VAL:HG23	1.70	0.67
1:A:81:LYS:HE3	1:A:81:LYS:H	1.59	0.67
2:R:276:CYS:SG	2:R:277:ASP:N	2.68	0.67
2:P:6:ASN:HB3	2:P:96:GLU:HA	1.77	0.67
2:P:7:GLY:H	2:P:33:ASN:HD22	1.41	0.67
2:P:9:GLY:O	2:P:13:ARG:N	2.19	0.67
1:G:149:CYS:SG	1:G:150:THR:N	2.67	0.67
1:G:182:GLN:HG3	1:G:195:ARG:HH12	1.59	0.67
1:G:186:ASP:OD1	1:G:198:ALA:N	2.26	0.67
2:H:306:MET:HB2	2:F:172:LYS:HZ3	1.58	0.67
1:E:316:GLY:O	1:E:320:ARG:NH1	2.27	0.67
2:F:272:ILE:O	2:F:322:ARG:NH1	2.27	0.67
1:I:128:TYR:HB3	1:I:134:GLU:HA	1.77	0.67
1:I:316:GLY:O	1:I:320:ARG:HG2	1.95	0.67
2:J:65:ALA:HA	2:J:74:LYS:HA	1.75	0.67
2:J:173:GLY:HA3	2:J:227:LEU:HD13	1.76	0.67
1:K:270:VAL:O	1:K:290:SER:N	2.28	0.67
1:K:292:ILE:HA	1:K:309:ALA:HA	1.75	0.67
1:A:1:LEU:O	1:A:26:ASP:N	2.27	0.67
1:Q:270:VAL:HG13	1:Q:289:SER:HB2	1.77	0.67
1:O:28:VAL:O	1:O:72:LYS:N	2.25	0.67
2:P:173:GLY:O	2:P:228:ASN:N	2.28	0.67
1:G:256:ASN:ND2	1:G:294:SER:HB2	2.10	0.67
2:F:175:MET:SD	2:F:175:MET:N	2.67	0.67
1:I:37:VAL:HG22	1:I:73:VAL:HG21	1.77	0.66
1:K:62:GLU:O	1:K:73:VAL:N	2.28	0.66
2:B:160:PHE:O	2:B:164:LEU:N	2.26	0.66
2:B:328:ASP:O	2:B:332:ASN:N	2.18	0.66
1:C:18:CYS:O	1:C:20:ARG:N	2.28	0.66
1:C:192:ASP:O	1:C:196:ALA:N	2.28	0.66
1:C:261:LYS:O	1:C:265:GLY:N	2.27	0.66
1:C:274:CYS:N	1:C:292:ILE:O	2.27	0.66
1:Q:25:LEU:HD13	1:Q:25:LEU:H	1.60	0.66
1:Q:281:VAL:HG11	2:R:49:SER:HA	1.77	0.66
1:O:10:ARG:NH2	1:O:314:GLU:OE1	2.25	0.66
2:P:34:ASP:O	2:P:77:SER:OG	2.12	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:312:ASP:OD1	1:E:316:GLY:N	2.28	0.66
2:F:46:LYS:HA	2:F:58:VAL:HG11	1.77	0.66
2:J:87:GLY:N	2:J:113:ALA:O	2.27	0.66
1:A:60:ILE:H	1:A:64:PHE:HA	1.60	0.66
1:A:152:ASN:HD22	1:A:152:ASN:N	1.94	0.66
2:D:213:ALA:O	2:D:228:ASN:ND2	2.28	0.66
1:Q:18:CYS:O	1:Q:20:ARG:N	2.28	0.66
2:R:182:THR:N	2:R:185:GLN:OE1	2.24	0.66
1:O:32:ASP:N	1:O:74:VAL:O	2.27	0.66
1:O:132:VAL:HG13	1:O:159:LYS:HD2	1.77	0.66
1:G:41:THR:O	1:G:45:LYS:N	2.25	0.66
1:G:226:ASN:ND2	1:E:298:MET:SD	2.63	0.66
2:H:34:ASP:H	2:H:75:VAL:HG22	1.59	0.66
1:E:167:ILE:HG23	1:E:244:VAL:HG21	1.77	0.66
2:F:182:THR:OG1	2:F:184:ASP:OD2	2.13	0.66
1:K:89:ILE:O	1:K:114:LYS:NZ	2.28	0.66
2:L:326:LEU:HD12	2:L:329:ILE:HD12	1.76	0.66
1:A:173:THR:N	1:A:241:ASP:OD2	2.28	0.66
2:B:204:ASN:HD21	2:D:283:ILE:H	1.43	0.66
1:Q:326:ASP:O	1:Q:330:ASN:ND2	2.28	0.66
2:R:4:ALA:HB2	2:R:31:VAL:HB	1.77	0.66
1:E:6:ASN:N	1:E:93:ILE:O	2.28	0.66
1:E:148:SER:O	1:E:152:ASN:N	2.23	0.66
2:L:259:ALA:HA	2:L:262:ARG:HD2	1.75	0.66
1:O:178:TYR:CD2	1:O:233:PRO:HA	2.31	0.66
2:P:111:LEU:HG	2:P:146:ILE:HD11	1.78	0.66
2:H:91:ILE:N	2:H:114:GLY:O	2.27	0.66
2:F:46:LYS:O	2:F:46:LYS:NZ	2.29	0.66
1:I:115:LYS:HA	1:I:142:ASN:HD22	1.59	0.66
1:I:214:VAL:O	1:I:218:LEU:N	2.25	0.66
2:J:66:ILE:N	2:J:73:ILE:O	2.27	0.66
1:K:18:CYS:O	1:K:20:ARG:N	2.29	0.66
1:A:4:ALA:HB2	1:A:89:ILE:HG13	1.77	0.66
1:Q:263:ALA:HA	1:Q:267:LEU:HB2	1.77	0.66
2:R:180:SER:OG	2:R:236:THR:O	2.09	0.66
2:R:284:ASP:OD1	2:R:284:ASP:N	2.28	0.66
1:O:90:ASP:HA	1:O:114:LYS:HG2	1.76	0.66
1:O:286:SER:HB3	1:O:312:ASP:HB3	1.77	0.66
2:P:195:LEU:H	2:P:195:LEU:HD12	1.60	0.66
1:G:179:THR:OG1	1:G:181:ASP:OD1	2.12	0.66
1:E:179:THR:H	1:E:182:GLN:HE22	1.44	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:319:GLN:HA	1:E:322:VAL:HG23	1.76	0.66
2:F:195:LEU:H	2:F:195:LEU:HD12	1.60	0.66
2:J:119:LEU:HG	2:J:148:SER:HA	1.77	0.66
1:K:101:ASP:OD1	1:K:104:GLY:N	2.28	0.66
1:A:224:LYS:HB3	1:A:224:LYS:HZ3	1.59	0.66
1:Q:10:ARG:HH12	1:Q:48:SER:H	1.43	0.66
1:Q:84:TRP:O	1:Q:88:GLY:N	2.29	0.66
1:Q:299:VAL:HA	1:Q:305:VAL:HA	1.77	0.66
2:R:17:ARG:O	2:R:21:GLY:N	2.25	0.66
1:O:5:ILE:HG23	1:O:93:ILE:HB	1.77	0.66
1:O:253:GLU:O	1:O:257:ASN:N	2.29	0.66
1:G:312:ASP:OD2	1:G:315:TRP:N	2.28	0.66
2:H:8:PHE:HZ	2:H:45:LEU:HD13	1.59	0.66
2:H:92:ASP:O	2:H:117:LYS:N	2.27	0.66
2:H:173:GLY:HA3	2:H:227:LEU:HD13	1.76	0.66
2:L:204:ASN:N	2:L:204:ASN:OD1	2.28	0.66
2:B:119:LEU:HG	2:B:148:SER:HA	1.76	0.66
2:B:192:HIS:HB3	2:B:198:ALA:HA	1.78	0.66
2:B:206:VAL:N	2:B:233:ARG:O	2.29	0.66
1:Q:185:LEU:HD21	2:P:182:THR:HA	1.77	0.66
1:Q:312:ASP:OD1	1:Q:316:GLY:N	2.26	0.66
1:Q:315:TRP:O	1:Q:318:SER:OG	2.13	0.66
1:O:129:VAL:H	1:O:133:ASN:ND2	1.93	0.66
2:P:217:ALA:HB2	2:P:224:LYS:HB3	1.78	0.66
1:G:129:VAL:HB	1:G:133:ASN:HD21	1.61	0.66
1:E:244:VAL:O	1:E:304:MET:HA	1.96	0.66
1:I:10:ARG:HA	1:I:13:ARG:NE	2.11	0.66
1:I:274:CYS:SG	1:I:275:ASP:N	2.67	0.66
2:J:175:MET:O	2:L:308:LYS:NZ	2.29	0.66
1:K:155:ALA:O	1:K:159:LYS:N	2.21	0.66
2:L:30:VAL:CA	2:L:73:ILE:HG23	2.26	0.66
2:L:295:ASP:N	2:L:310:ILE:O	2.27	0.66
1:A:40:ALA:O	1:A:44:LEU:N	2.25	0.66
1:A:148:SER:O	1:A:151:THR:OG1	2.11	0.66
1:A:183:ARG:NH2	1:A:188:SER:O	2.28	0.66
1:A:192:ASP:HB3	1:A:195:ARG:HB2	1.76	0.66
1:A:274:CYS:N	1:A:292:ILE:O	2.28	0.66
2:B:137:GLU:N	2:B:137:GLU:OE1	2.28	0.66
2:B:175:MET:O	2:D:308:LYS:NZ	2.28	0.66
2:D:132:VAL:H	2:D:136:ASN:HB2	1.59	0.66
1:Q:206:THR:N	1:Q:229:ALA:O	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:258:ALA:O	1:G:261:LYS:NZ	2.28	0.66
1:I:281:VAL:HG11	2:J:49:SER:HA	1.76	0.66
2:J:80:ASN:HB3	2:J:83:ASN:HB2	1.77	0.66
2:L:236:THR:OG1	2:L:238:ASN:ND2	2.29	0.66
2:B:47:TYR:HA	2:B:53:THR:HA	1.77	0.66
1:Q:299:VAL:HG12	1:Q:305:VAL:HG22	1.78	0.66
2:R:179:HIS:HB3	2:R:233:ARG:HA	1.77	0.66
1:O:162:ASP:OD1	1:O:167:ILE:N	2.27	0.66
1:O:299:VAL:HG12	1:O:305:VAL:HA	1.78	0.66
1:O:312:ASP:OD2	1:O:315:TRP:N	2.28	0.66
1:G:0:LYS:N	1:G:24:PRO:O	2.28	0.66
2:F:184:ASP:OD2	2:F:233:ARG:NH1	2.29	0.66
1:I:135:LYS:NZ	1:I:137:TYR:O	2.29	0.66
2:J:137:GLU:N	2:J:137:GLU:OE1	2.29	0.66
2:B:173:GLY:N	2:B:226:LYS:O	2.29	0.66
2:R:90:GLY:O	2:R:116:LYS:NZ	2.29	0.66
1:O:183:ARG:NH2	1:O:188:SER:OG	2.28	0.66
2:H:18:CYS:O	2:H:22:ARG:N	2.28	0.66
2:H:289:ASP:O	2:H:322:ARG:NH1	2.24	0.66
1:I:17:ARG:O	1:I:19:GLY:N	2.25	0.65
2:J:302:MET:N	2:J:306:MET:O	2.28	0.65
1:K:11:ILE:HA	1:K:14:ASN:HB2	1.76	0.65
1:K:130:VAL:HG22	1:K:324:LEU:HD23	1.76	0.65
1:K:177:SER:HA	1:K:234:THR:HG23	1.78	0.65
1:C:212:LYS:HA	1:C:225:LEU:HD12	1.76	0.65
2:D:58:VAL:HG12	2:D:68:VAL:HG23	1.78	0.65
2:D:326:LEU:HD12	2:D:329:ILE:HD12	1.76	0.65
2:R:182:THR:OG1	2:R:183:GLY:N	2.28	0.65
2:R:209:SER:HA	2:R:231:ALA:H	1.60	0.65
1:O:312:ASP:OD1	1:O:316:GLY:N	2.27	0.65
2:H:88:ASP:N	2:H:88:ASP:OD1	2.26	0.65
1:I:108:HIS:CD2	1:I:108:HIS:N	2.61	0.65
1:I:178:TYR:HB3	1:I:233:PRO:HA	1.79	0.65
1:I:206:THR:HB	1:I:229:ALA:HB3	1.77	0.65
2:J:182:THR:OG1	2:J:185:GLN:NE2	2.29	0.65
2:J:244:LEU:HG	2:J:246:VAL:HG22	1.77	0.65
2:L:9:GLY:O	2:L:13:ARG:N	2.22	0.65
1:A:165:LEU:HB3	1:A:248:LYS:HD2	1.79	0.65
2:B:65:ALA:HA	2:B:74:LYS:HA	1.77	0.65
2:B:102:VAL:HG23	2:B:120:ILE:HG21	1.78	0.65
2:B:315:ASN:N	2:B:315:ASN:OD1	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:179:THR:N	1:C:182:GLN:OE1	2.30	0.65
1:C:239:VAL:HA	1:C:310:TRP:HA	1.77	0.65
1:Q:203:ILE:HG23	1:Q:232:VAL:HA	1.77	0.65
2:R:39:LYS:O	2:R:42:SER:OG	2.09	0.65
1:G:41:THR:HG21	1:G:59:ILE:HG12	1.78	0.65
2:H:22:ARG:HG3	2:H:324:VAL:HG11	1.78	0.65
2:H:272:ILE:O	2:H:322:ARG:NH1	2.29	0.65
1:E:261:LYS:O	1:E:265:GLY:N	2.28	0.65
2:J:253:PHE:HE2	2:J:255:GLU:HB3	1.60	0.65
2:J:269:LEU:HB3	2:J:273:LEU:HD23	1.78	0.65
1:K:100:VAL:HB	1:K:122(A):LYS:HB2	1.78	0.65
1:K:151:THR:HG22	1:K:214:VAL:HG23	1.79	0.65
1:K:246:ILE:HG13	1:K:248:LYS:H	1.59	0.65
2:L:32:ILE:HG23	2:L:75:VAL:HG21	1.75	0.65
2:B:181:TYR:HD2	2:B:235:PRO:HA	1.61	0.65
2:B:320:SER:O	2:B:324:VAL:N	2.27	0.65
1:C:159:LYS:O	1:C:163:GLU:N	2.27	0.65
2:D:284:ASP:OD1	2:D:284:ASP:N	2.29	0.65
2:R:18:CYS:O	2:R:22:ARG:N	2.30	0.65
2:R:92:ASP:O	2:R:117:LYS:N	2.27	0.65
2:R:106:GLY:O	2:R:110:HIS:N	2.28	0.65
1:O:239:VAL:HB	1:O:310:TRP:HA	1.78	0.65
2:H:17:ARG:CZ	2:H:51:LEU:HB3	2.27	0.65
1:E:78:ASP:OD2	1:E:81:LYS:NZ	2.22	0.65
2:J:14:ASN:O	2:J:18:CYS:N	2.18	0.65
2:J:151:SER:OG	2:J:153:THR:OG1	2.10	0.65
1:K:190:HIS:CE1	1:K:191:ARG:HG2	2.30	0.65
2:L:88:ASP:OD1	2:L:88:ASP:N	2.18	0.65
1:A:221:LEU:HD13	1:A:224:LYS:HD3	1.78	0.65
2:R:39:LYS:NZ	2:R:40:GLN:H	1.94	0.65
2:R:102:VAL:HG22	2:R:125:LYS:H	1.61	0.65
2:P:96:GLU:OE2	2:P:98:THR:OG1	2.09	0.65
1:G:259:PHE:O	1:G:263:ALA:N	2.26	0.65
2:H:276:CYS:SG	2:H:277:ASP:N	2.69	0.65
1:E:84:TRP:O	1:E:88:GLY:N	2.30	0.65
1:E:193:LEU:HD12	1:E:194:ARG:H	1.60	0.65
1:E:253:GLU:O	1:E:257:ASN:N	2.29	0.65
1:E:282:ASP:N	1:E:282:ASP:OD1	2.28	0.65
1:I:179:THR:OG1	1:I:181:ASP:OD1	2.08	0.65
2:J:26:PRO:HB2	2:J:331:ALA:HB1	1.77	0.65
1:K:181:ASP:O	1:K:195:ARG:NH1	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:174:THR:OG1	1:A:311:TYR:OH	2.14	0.65
2:D:208:THR:OG1	2:D:209:SER:N	2.29	0.65
2:D:289:ASP:O	2:D:322:ARG:NH1	2.30	0.65
2:R:118:VAL:N	2:R:145:THR:O	2.29	0.65
2:H:8:PHE:CZ	2:H:13:ARG:HG3	2.31	0.65
2:F:3:VAL:HG22	2:F:93:LEU:HB3	1.78	0.65
1:I:37:VAL:O	1:I:41:THR:N	2.17	0.65
1:I:190:HIS:NE2	1:I:192:ASP:HB3	2.12	0.65
2:L:3:VAL:HG21	2:L:27:LEU:HB3	1.78	0.65
1:A:306:LYS:NZ	1:C:172:MET:O	2.29	0.65
1:O:256:ASN:O	1:O:260:ARG:N	2.23	0.65
1:G:272:ASP:O	1:G:292:ILE:N	2.28	0.65
1:E:62:GLU:O	1:E:72:LYS:NZ	2.21	0.65
1:E:84:TRP:HA	1:E:87:LEU:HD12	1.79	0.65
2:F:216:VAL:HG22	2:F:223:LEU:HB3	1.79	0.65
1:I:257:ASN:O	1:I:261:LYS:N	2.24	0.65
2:J:13:ARG:HG2	2:J:45:LEU:HA	1.79	0.65
2:J:328:ASP:O	2:J:332:ASN:N	2.21	0.65
1:K:13:ARG:HB3	1:K:44:LEU:HA	1.79	0.65
2:B:37:GLY:HA2	1:O:345:LEU:HA	1.79	0.65
2:B:87:GLY:N	2:B:113:ALA:O	2.25	0.65
1:C:62:GLU:O	1:C:73:VAL:N	2.29	0.65
1:C:324:LEU:O	1:C:328:VAL:N	2.21	0.65
2:R:272:ILE:O	2:R:322:ARG:NH1	2.30	0.65
1:O:96:THR:HG22	3:O:401:NAD:H52A	1.78	0.65
2:P:142:HIS:HB2	2:P:333:LYS:HG3	1.77	0.65
1:G:63:THR:HG23	1:G:72:LYS:HD3	1.79	0.65
1:G:265:GLY:O	1:G:268:LYS:NZ	2.28	0.65
2:H:162:LYS:HB2	2:H:220:LEU:HD11	1.79	0.65
2:H:275:VAL:HA	2:H:294:ILE:H	1.61	0.65
1:E:0:LYS:HB2	1:E:1:LEU:HD22	1.78	0.65
1:E:183:ARG:HD3	1:E:196:ALA:HA	1.79	0.65
2:F:5:ILE:HB	2:F:32:ILE:HG23	1.78	0.65
1:I:149:CYS:O	1:I:153:CYS:N	2.21	0.65
1:K:130:VAL:HG21	1:K:323:ASP:HB2	1.79	0.65
1:K:274:CYS:N	1:K:292:ILE:O	2.26	0.65
1:K:312:ASP:CG	1:K:316:GLY:H	1.99	0.65
1:A:174:THR:O	1:A:230:LEU:HB2	1.97	0.65
1:Q:183:ARG:HG3	1:Q:187:ALA:HB3	1.77	0.65
2:R:6:ASN:OD1	2:R:33:ASN:ND2	2.30	0.65
2:R:8:PHE:H	2:R:34:ASP:HB2	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:17:ARG:NH2	2:P:53:THR:O	2.30	0.65
1:G:203:ILE:HG23	1:G:232:VAL:HA	1.78	0.65
2:H:284:ASP:N	2:H:284:ASP:OD1	2.28	0.65
1:K:38:LYS:HZ3	1:K:39:SER:H	1.43	0.65
1:K:319:GLN:O	1:K:319:GLN:NE2	2.30	0.65
3:K:402:NAD:O3B	1:E:13:ARG:NH2	2.27	0.65
1:C:179:THR:OG1	1:C:231:ARG:NH2	2.29	0.65
1:C:292:ILE:HA	1:C:309:ALA:HA	1.78	0.65
1:O:10:ARG:O	1:O:14:ASN:ND2	2.24	0.65
2:P:206:VAL:HB	2:P:233:ARG:HB2	1.78	0.65
1:G:324:LEU:HD12	1:G:327:LEU:HB3	1.78	0.65
1:E:28:VAL:O	1:E:72:LYS:N	2.24	0.65
2:F:142:HIS:HB2	2:F:333:LYS:HG3	1.77	0.65
1:I:94:GLU:HB3	1:I:119:THR:H	1.62	0.65
1:I:152:ASN:HD22	1:I:152:ASN:N	1.95	0.65
1:A:238:SER:HB2	1:A:311:TYR:CE2	2.32	0.65
2:B:255:GLU:OE2	2:B:262:ARG:NH1	2.23	0.65
2:D:106:GLY:HA2	2:D:109:LYS:HZ3	1.61	0.65
2:D:109:LYS:HA	2:D:112:GLN:HB2	1.78	0.65
1:Q:198:ALA:HB3	1:Q:201:LEU:HD11	1.78	0.65
2:P:90:GLY:O	2:P:116:LYS:NZ	2.30	0.65
2:J:206:VAL:N	2:J:233:ARG:O	2.28	0.64
1:A:132:VAL:HA	1:A:159:LYS:HD2	1.78	0.64
2:B:91:ILE:O	2:B:116:LYS:N	2.30	0.64
2:B:266:ASP:O	2:B:270:LYS:NZ	2.24	0.64
1:C:238:SER:HB3	1:C:311:TYR:CZ	2.32	0.64
1:Q:277:PRO:HG2	1:O:193:LEU:HD11	1.77	0.64
2:R:236:THR:HG23	2:R:238:ASN:H	1.62	0.64
2:P:15:PHE:HZ	2:P:29:VAL:HG21	1.60	0.64
2:P:168:PHE:O	2:P:249:SER:OG	2.14	0.64
1:G:267:LEU:HD13	1:G:271:LEU:HD22	1.80	0.64
2:F:165:ASP:OD1	2:F:170:ILE:N	2.30	0.64
1:I:236:ASN:ND2	1:I:312:ASP:OD2	2.28	0.64
1:K:141:ALA:HB1	1:K:144:ILE:HA	1.78	0.64
2:L:208:THR:OG1	2:L:209:SER:N	2.31	0.64
2:L:295:ASP:OD1	2:L:297:SER:OG	2.13	0.64
1:A:149:CYS:O	1:A:153:CYS:N	2.25	0.64
1:A:328:VAL:O	1:A:332:TRP:N	2.30	0.64
2:B:238:ASN:HD22	2:B:282:SER:HB2	1.61	0.64
1:C:262:ALA:HB1	1:C:267:LEU:HD12	1.80	0.64
1:G:36:GLY:O	1:G:39:SER:OG	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:57:VAL:HG13	1:G:66:ILE:HG13	1.77	0.64
1:E:239:VAL:HB	1:E:310:TRP:HA	1.78	0.64
2:F:16:LEU:HD23	2:F:54:PHE:HE2	1.63	0.64
1:I:246:ILE:N	1:I:303:ASP:O	2.29	0.64
2:J:189:ASP:HA	2:J:199:ARG:HA	1.79	0.64
1:K:186:ASP:HA	1:K:197:ARG:HA	1.78	0.64
1:K:298:MET:N	1:K:306:LYS:O	2.29	0.64
2:L:30:VAL:HG13	2:L:71:LYS:HZ1	1.63	0.64
1:A:215:SER:HB2	1:A:222:LYS:HA	1.79	0.64
2:B:29:VAL:O	2:B:71:LYS:NZ	2.31	0.64
1:C:6:ASN:N	1:C:93:ILE:O	2.30	0.64
1:C:178:TYR:N	1:C:234:THR:O	2.29	0.64
1:C:259:PHE:O	1:C:263:ALA:N	2.20	0.64
2:D:81:PRO:HB2	2:D:109:LYS:HB2	1.79	0.64
2:D:153:THR:OG1	2:D:154:THR:N	2.25	0.64
1:Q:36:GLY:O	1:Q:39:SER:OG	2.13	0.64
1:Q:139:HIS:NE2	1:Q:332:TRP:HA	2.12	0.64
2:R:257:VAL:O	2:R:261:PHE:N	2.25	0.64
1:O:23:SER:OG	1:O:25:LEU:O	2.16	0.64
2:P:175:MET:SD	2:P:175:MET:N	2.68	0.64
2:H:7:GLY:HA3	2:H:98:THR:HG22	1.79	0.64
2:H:104:ARG:HE	2:H:128:ILE:HG13	1.63	0.64
1:E:47:ASP:OD1	1:E:51:GLY:N	2.30	0.64
1:E:158:VAL:HA	1:E:161:LEU:HD12	1.77	0.64
1:E:267:LEU:HB3	1:E:271:LEU:HD13	1.78	0.64
2:F:111:LEU:HG	2:F:146:ILE:HD11	1.79	0.64
2:F:245:VAL:HG22	2:F:308:LYS:HA	1.77	0.64
1:I:23:SER:OG	1:I:25:LEU:O	2.16	0.64
1:I:173:THR:HB	1:I:241:ASP:HB3	1.80	0.64
2:L:228:ASN:OD1	2:L:229:GLY:N	2.31	0.64
1:A:11:ILE:O	1:A:14:ASN:ND2	2.30	0.64
1:A:37:VAL:HG22	1:A:73:VAL:HG21	1.79	0.64
1:A:168:VAL:O	1:A:224:LYS:NZ	2.21	0.64
2:B:80:ASN:HB3	2:B:83:ASN:HB2	1.79	0.64
2:B:302:MET:N	2:B:306:MET:O	2.30	0.64
1:C:150:THR:OG1	1:C:151:THR:N	2.29	0.64
2:R:182:THR:HG23	2:R:184:ASP:HB3	1.78	0.64
1:I:60:ILE:H	1:I:64:PHE:HA	1.62	0.64
1:I:164:GLU:OE1	1:I:261:LYS:NZ	2.20	0.64
1:K:45:LYS:HD2	1:K:53:PHE:HB3	1.79	0.64
1:K:57:VAL:HG22	1:K:66:ILE:HG23	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:116:LYS:HD2	2:L:336:ALA:HB1	1.80	0.64
2:L:322:ARG:NE	2:L:325:ASP:OD2	2.27	0.64
1:A:104:GLY:O	1:A:108:HIS:NE2	2.30	0.64
1:A:193:LEU:HD12	1:A:194:ARG:HG2	1.80	0.64
1:C:10:ARG:O	1:C:14:ASN:ND2	2.31	0.64
2:D:43:HIS:O	2:D:47:TYR:N	2.26	0.64
2:D:60:THR:HA	2:D:66:ILE:HA	1.78	0.64
1:Q:253:GLU:OE2	1:Q:260:ARG:NH2	2.27	0.64
2:R:81:PRO:HA	2:R:84:LEU:HB2	1.77	0.64
1:I:193:LEU:HD12	1:I:194:ARG:H	1.62	0.64
2:J:179:HIS:HB3	2:J:233:ARG:HA	1.78	0.64
2:L:206:VAL:O	2:L:233:ARG:N	2.31	0.64
2:D:65:ALA:HB2	2:D:74:LYS:HE2	1.79	0.64
1:Q:13:ARG:HH21	1:Q:47:ASP:HA	1.62	0.64
1:Q:149:CYS:HA	1:Q:152:ASN:HD22	1.63	0.64
1:Q:177:SER:O	1:Q:231:ARG:NE	2.31	0.64
2:R:192:HIS:HB3	2:R:198:ALA:HA	1.80	0.64
2:R:289:ASP:O	2:R:322:ARG:NH1	2.27	0.64
1:G:220:GLN:HG2	1:G:221:LEU:HD13	1.80	0.64
1:E:177:SER:HA	1:E:234:THR:HG23	1.80	0.64
1:I:173:THR:O	1:I:241:ASP:N	2.20	0.64
1:I:181:ASP:HB2	1:I:195:ARG:NH1	2.12	0.64
2:J:13:ARG:HD3	2:J:44:LEU:HD22	1.78	0.64
2:J:208:THR:OG1	2:J:209:SER:N	2.30	0.64
2:L:284:ASP:OD1	2:L:284:ASP:N	2.30	0.64
1:A:105:ALA:HB1	1:A:116:VAL:HG21	1.78	0.64
1:A:172:MET:HB3	1:A:242:LEU:HA	1.79	0.64
1:A:176:HIS:N	1:A:230:LEU:O	2.31	0.64
2:B:12:GLY:O	2:B:16:LEU:N	2.24	0.64
1:Q:148:SER:O	1:Q:152:ASN:N	2.24	0.64
1:Q:258:ALA:O	1:Q:261:LYS:NZ	2.31	0.64
2:R:206:VAL:N	2:R:233:ARG:O	2.25	0.64
2:P:48:ASP:OD2	2:P:51:LEU:N	2.31	0.64
1:G:253:GLU:OE1	1:G:256:ASN:ND2	2.30	0.64
1:G:298:MET:O	1:G:306:LYS:N	2.31	0.64
2:H:104:ARG:HG3	2:H:146:ILE:HG21	1.79	0.64
1:E:28:VAL:HA	1:E:71:ILE:HG13	1.79	0.64
1:I:14:ASN:HA	1:I:17:ARG:HG3	1.79	0.64
1:K:271:LEU:HA	1:K:290:SER:HB3	1.78	0.64
2:L:119:LEU:HG	2:L:148:SER:HA	1.79	0.64
2:L:196:ARG:HB3	2:L:206:VAL:HG22	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:204:ASN:HD21	2:D:283:ILE:HG22	1.61	0.64
1:C:275:ASP:OD1	1:C:294:SER:OG	2.15	0.64
2:D:104:ARG:NE	2:D:127:ASP:O	2.31	0.64
1:Q:259:PHE:O	1:Q:263:ALA:N	2.31	0.64
1:O:179:THR:OG1	1:O:231:ARG:NH2	2.31	0.64
2:P:171:ILE:HG22	2:P:172:LYS:HG3	1.79	0.64
1:E:297:THR:HG23	1:E:307:VAL:HA	1.79	0.64
2:F:3:VAL:HB	2:F:29:VAL:HG22	1.79	0.64
2:J:47:TYR:HB2	1:K:197:ARG:HH12	1.63	0.64
1:C:105:ALA:O	1:C:109:ILE:N	2.24	0.64
2:F:40:GLN:O	2:F:44:LEU:N	2.20	0.64
1:I:126:PRO:HD3	1:Q:103:PRO:HG3	1.79	0.64
2:J:299:THR:HG22	2:J:309:VAL:HA	1.80	0.64
2:J:317:TRP:O	2:J:320:SER:OG	2.16	0.64
1:K:159:LYS:O	1:K:163:GLU:N	2.30	0.64
1:K:171:THR:OG1	1:K:172:MET:N	2.31	0.64
2:L:179:HIS:N	2:L:232:LEU:O	2.31	0.64
1:A:46:TYR:O	2:D:199:ARG:NH1	2.30	0.64
2:B:8:PHE:N	2:B:33:ASN:O	2.31	0.64
1:C:280:SER:O	1:C:284:ARG:N	2.30	0.64
2:D:17:ARG:NH2	2:D:55:ASP:OD1	2.24	0.64
2:D:105:ASP:OD2	2:D:109:LYS:NZ	2.31	0.64
1:O:236:ASN:OD1	1:O:314:GLU:N	2.31	0.64
2:H:118:VAL:N	2:H:145:THR:O	2.30	0.64
2:F:206:VAL:HB	2:F:233:ARG:HB2	1.80	0.64
1:I:40:ALA:O	1:I:44:LEU:N	2.25	0.63
1:I:58:LYS:O	1:I:65:SER:N	2.22	0.63
1:K:0:LYS:N	1:K:23:SER:O	2.31	0.63
2:L:20:HIS:HE2	2:L:69:ASP:CG	2.00	0.63
2:L:184:ASP:OD1	2:L:185:GLN:NE2	2.29	0.63
1:C:41:THR:O	1:C:45:LYS:N	2.18	0.63
1:C:299:VAL:HA	1:C:305:VAL:HA	1.81	0.63
1:Q:5:ILE:HB	1:Q:30:VAL:HG13	1.80	0.63
2:R:167:LYS:O	2:R:250:LYS:NZ	2.29	0.63
1:O:253:GLU:O	1:O:260:ARG:NH2	2.31	0.63
1:G:139:HIS:CE1	1:G:332:TRP:HA	2.34	0.63
2:H:31:VAL:HG22	2:H:74:LYS:CD	2.12	0.63
2:H:194:ASP:O	2:H:198:ALA:N	2.30	0.63
2:H:283:ILE:HD12	2:H:286:ARG:HD2	1.79	0.63
1:E:102:GLY:O	1:E:106:GLY:N	2.31	0.63
1:I:139(A):ASP:O	1:Q:107:LYS:NZ	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:8:PHE:N	2:J:33:ASN:O	2.31	0.63
2:J:22:ARG:NH1	2:J:328:ASP:OD2	2.31	0.63
2:J:29:VAL:O	2:J:71:LYS:NZ	2.31	0.63
2:J:91:ILE:O	2:J:116:LYS:N	2.30	0.63
2:J:104:ARG:O	2:J:108:GLY:N	2.27	0.63
2:J:104:ARG:HH21	2:J:128:ILE:HA	1.64	0.63
2:J:186:ARG:HH22	2:J:193:ARG:HH22	1.45	0.63
2:D:244:LEU:HD11	2:D:246:VAL:HG13	1.79	0.63
1:Q:15:PHE:CE1	1:Q:322:VAL:HG22	2.33	0.63
1:Q:173:THR:HG23	1:Q:230:LEU:HB2	1.80	0.63
1:O:0:LYS:N	1:O:24:PRO:O	2.21	0.63
2:P:3:VAL:HB	2:P:29:VAL:HG22	1.79	0.63
2:P:142:HIS:NE2	2:P:336:ALA:O	2.31	0.63
2:H:15:PHE:O	2:H:19:TRP:N	2.21	0.63
1:E:1:LEU:HD23	1:E:25:LEU:HD13	1.80	0.63
1:E:134:GLU:OE1	1:E:134:GLU:N	2.23	0.63
2:F:2:LYS:NZ	2:F:92:ASP:OD2	2.27	0.63
2:F:42:SER:HB3	2:F:60:THR:HG22	1.80	0.63
1:I:150:THR:OG1	1:I:151:THR:N	2.32	0.63
1:I:236:ASN:H	1:I:284:ARG:NH2	1.96	0.63
2:J:140:TYR:OH	2:J:142:HIS:ND1	2.28	0.63
2:J:291:SER:HB3	2:J:322:ARG:HD2	1.80	0.63
1:K:16:LEU:HB3	1:K:44:LEU:HD11	1.79	0.63
2:L:22:ARG:NH1	2:L:328:ASP:OD2	2.31	0.63
2:L:104:ARG:NE	2:L:127:ASP:O	2.30	0.63
2:L:263:GLU:OE1	2:L:264:SER:N	2.27	0.63
1:A:1:LEU:N	1:A:24:PRO:O	2.31	0.63
1:A:257:ASN:O	1:A:261:LYS:N	2.23	0.63
1:A:287:ASP:O	1:A:320:ARG:NH1	2.32	0.63
1:Q:15:PHE:HZ	1:Q:322:VAL:HG13	1.63	0.63
1:Q:132:VAL:N	1:Q:134:GLU:OE1	2.31	0.63
2:R:275:VAL:HA	2:R:294:ILE:H	1.63	0.63
1:O:118:ILE:N	1:O:144:ILE:O	2.28	0.63
1:O:270:VAL:HG12	1:O:271:LEU:HD12	1.80	0.63
2:P:157:LEU:HD21	2:P:212:ALA:HB1	1.79	0.63
2:H:173:GLY:H	2:H:227:LEU:HA	1.63	0.63
2:F:173:GLY:O	2:F:228:ASN:N	2.29	0.63
1:I:9:GLY:O	1:I:13:ARG:HG3	1.97	0.63
1:I:306:LYS:NZ	1:K:172:MET:O	2.31	0.63
2:J:6:ASN:O	2:J:97:GLY:N	2.31	0.63
2:J:189:ASP:OD2	1:K:10:ARG:NH1	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:76:ASN:OD1	1:K:78:ASP:N	2.31	0.63
1:A:150:THR:OG1	1:A:151:THR:N	2.30	0.63
2:B:14:ASN:OD1	2:B:320:SER:OG	2.15	0.63
2:B:196:ARG:NH1	2:D:280:LEU:O	2.31	0.63
2:B:208:THR:OG1	2:B:209:SER:N	2.31	0.63
2:D:78:ASP:OD1	2:D:80:ASN:N	2.31	0.63
1:O:77:ARG:HE	3:O:401:NAD:C6A	2.11	0.63
1:G:135:LYS:HD2	1:G:331:LYS:HE2	1.81	0.63
1:G:160:VAL:O	1:G:164:GLU:N	2.29	0.63
2:H:33:ASN:HA	2:H:75:VAL:HA	1.80	0.63
2:H:150:ALA:O	2:H:319:TYR:OH	2.14	0.63
2:H:167:LYS:O	2:H:250:LYS:NZ	2.28	0.63
2:F:152:CYS:SG	2:F:153:THR:N	2.71	0.63
1:I:76:ASN:HD22	1:I:82:LEU:HD21	1.63	0.63
2:J:6:ASN:HB3	2:J:96:GLU:HA	1.81	0.63
2:J:315:ASN:N	2:J:315:ASN:OD1	2.30	0.63
2:L:213:ALA:O	2:L:228:ASN:ND2	2.32	0.63
1:C:56:ASP:N	1:C:67:ASP:OD2	2.31	0.63
2:D:79:ARG:HD3	3:D:401:NAD:H61A	1.64	0.63
2:D:194:ASP:HB3	2:D:197:ARG:HB2	1.81	0.63
2:D:210:THR:HG23	2:D:213:ALA:H	1.62	0.63
1:Q:238:SER:N	1:Q:313:ASN:OD1	2.31	0.63
1:Q:320:ARG:NE	1:Q:323:ASP:OD2	2.31	0.63
2:R:104:ARG:HE	2:R:128:ILE:HG13	1.64	0.63
2:R:186:ARG:NH2	2:R:191:SER:O	2.31	0.63
1:O:176:HIS:N	1:O:230:LEU:O	2.31	0.63
1:G:40:ALA:HA	1:G:43:LEU:HD12	1.81	0.63
1:G:89:ILE:O	1:G:114:LYS:NZ	2.25	0.63
1:G:279:VAL:N	1:G:282:ASP:OD2	2.26	0.63
2:H:34:ASP:HB3	2:H:75:VAL:CG2	2.27	0.63
2:H:236:THR:HG23	2:H:238:ASN:H	1.63	0.63
1:E:162:ASP:OD1	1:E:167:ILE:N	2.29	0.63
2:F:263:GLU:O	2:F:267:ASN:N	2.31	0.63
2:F:267:ASN:OD1	2:F:268:GLU:N	2.32	0.63
1:I:190:HIS:O	2:L:40:GLN:NE2	2.29	0.63
2:J:248:VAL:N	2:J:305:ASP:O	2.29	0.63
1:A:34:GLY:O	1:A:39:SER:OG	2.13	0.63
1:A:299:VAL:HG23	1:A:305:VAL:HG13	1.79	0.63
1:O:47:ASP:OD1	1:O:51:GLY:N	2.32	0.63
1:O:238:SER:HB2	1:O:311:TYR:CE2	2.34	0.63
2:P:263:GLU:O	2:P:267:ASN:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:39:SER:O	1:G:43:LEU:N	2.20	0.63
1:E:296:LEU:HB2	1:E:308:VAL:HG21	1.80	0.63
2:F:39:LYS:HA	2:F:60:THR:HG21	1.79	0.63
2:F:299:THR:HG22	2:F:310:ILE:H	1.63	0.63
1:I:84:TRP:HA	1:I:87:LEU:HB2	1.81	0.63
1:K:107:LYS:O	1:K:111:ALA:N	2.31	0.63
2:L:223:LEU:H	2:L:223:LEU:HD12	1.62	0.63
1:A:178:TYR:HB3	1:A:233:PRO:HA	1.80	0.63
2:B:18:CYS:SG	2:B:320:SER:OG	2.57	0.63
2:B:208:THR:HG23	2:B:231:ALA:HB3	1.81	0.63
1:C:76:ASN:OD1	1:C:78:ASP:N	2.31	0.63
1:C:115:LYS:HE3	1:C:139:HIS:HA	1.81	0.63
1:Q:220:GLN:HG2	1:Q:221:LEU:HD13	1.80	0.63
1:O:263:ALA:HA	1:O:267:LEU:HB2	1.80	0.63
2:P:238:ASN:HD22	2:P:282:SER:HB2	1.64	0.63
2:P:267:ASN:OD1	2:P:268:GLU:N	2.31	0.63
1:G:132:VAL:N	1:G:134:GLU:OE1	2.31	0.63
2:F:10:ARG:O	2:F:14:ASN:N	2.15	0.63
2:F:243:ASP:N	2:F:243:ASP:OD2	2.32	0.63
1:I:10:ARG:NH2	1:I:314:GLU:OE1	2.29	0.63
2:J:240:SER:N	2:J:313:TYR:O	2.31	0.63
2:L:272:ILE:O	2:L:322:ARG:NH1	2.31	0.63
1:A:181:ASP:HB2	1:A:195:ARG:HD3	1.79	0.63
2:B:140:TYR:O	2:B:333:LYS:NZ	2.32	0.63
2:B:153:THR:OG1	2:B:154:THR:N	2.32	0.63
2:B:326:LEU:HD12	2:B:329:ILE:HB	1.80	0.63
1:C:253:GLU:O	1:C:257:ASN:ND2	2.31	0.63
1:C:271:LEU:HA	1:C:290:SER:HB3	1.80	0.63
2:D:142:HIS:H	2:D:333:LYS:HE2	1.64	0.63
2:D:243:ASP:OD2	2:D:243:ASP:N	2.31	0.63
2:D:281:VAL:N	2:D:284:ASP:OD2	2.19	0.63
2:R:36:GLY:O	2:R:77:SER:OG	2.16	0.63
2:R:67:SER:N	2:R:72:VAL:HG13	2.13	0.63
2:R:152:CYS:O	2:R:156:CYS:N	2.32	0.63
1:O:76:ASN:HD22	1:O:82:LEU:HD21	1.63	0.63
1:O:146:ASN:O	1:O:317:TYR:OH	2.17	0.63
1:O:271:LEU:HD23	1:O:292:ILE:HD11	1.81	0.63
1:G:278:LEU:HD22	2:H:47:TYR:CD2	2.33	0.63
2:H:246:VAL:HG23	2:H:307:VAL:HB	1.80	0.63
2:F:149:ASN:HD21	2:F:155:ASN:HB2	1.64	0.63
2:J:192:HIS:CE1	2:J:194:ASP:H	2.17	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:112:GLY:O	1:K:114:LYS:NZ	2.23	0.63
2:L:171:ILE:N	2:L:247:GLN:O	2.32	0.63
1:C:270:VAL:O	1:C:290:SER:N	2.31	0.63
2:D:46:LYS:NZ	2:D:53:THR:OG1	2.23	0.63
2:D:223:LEU:H	2:D:223:LEU:HD12	1.63	0.63
2:D:295:ASP:N	2:D:310:ILE:O	2.31	0.63
1:Q:48:SER:OG	2:P:189:ASP:OD2	2.16	0.63
1:Q:170:GLY:N	1:Q:224:LYS:O	2.32	0.63
1:Q:345:LEU:O	1:Q:349:CYS:N	2.26	0.63
2:R:102:VAL:HG13	2:R:125:LYS:HB2	1.80	0.63
1:G:292:ILE:HG13	1:G:309:ALA:HB2	1.79	0.63
2:H:92:ASP:HB3	2:H:334:TRP:CH2	2.33	0.63
2:F:130:THR:HG21	2:F:218:LEU:HB3	1.81	0.63
1:I:203:ILE:HG13	1:I:233:PRO:HD3	1.80	0.62
2:J:172:LYS:HG2	2:J:226:LYS:HB2	1.82	0.62
2:J:204:ASN:HD21	2:L:283:ILE:H	1.46	0.62
1:K:66:ILE:HB	1:K:69:LYS:HB2	1.80	0.62
1:K:150:THR:OG1	1:K:151:THR:N	2.31	0.62
1:A:121:PRO:HD3	3:A:401:NAD:H5N	1.81	0.62
1:A:195:ARG:HH12	1:G:362:GLU:N	1.97	0.62
1:A:298:MET:HG3	1:A:306:LYS:HB3	1.80	0.62
1:C:36:GLY:O	1:C:39:SER:OG	2.13	0.62
1:Q:160:VAL:O	1:Q:164:GLU:N	2.28	0.62
2:H:14:ASN:O	2:H:18:CYS:N	2.23	0.62
2:H:16:LEU:HD13	2:H:45:LEU:CD1	2.27	0.62
1:E:118:ILE:N	1:E:144:ILE:O	2.25	0.62
1:E:192:ASP:O	1:E:196:ALA:N	2.31	0.62
1:K:192:ASP:OD2	1:K:195:ARG:N	2.24	0.62
1:A:212:LYS:O	1:A:216:LEU:N	2.30	0.62
2:B:6:ASN:HB3	2:B:96:GLU:HA	1.82	0.62
2:D:208:THR:N	2:D:231:ALA:O	2.25	0.62
2:D:241:VAL:HG22	2:D:312:TRP:HA	1.81	0.62
2:D:263:GLU:OE1	2:D:264:SER:N	2.27	0.62
1:Q:239:VAL:HA	1:Q:311:TYR:CE1	2.33	0.62
1:Q:293:ASP:OD1	1:Q:295:SER:OG	2.14	0.62
2:R:5:ILE:H	2:R:32:ILE:HG12	1.64	0.62
2:R:19:TRP:HH2	2:R:69:ASP:HB2	1.63	0.62
2:R:105:ASP:O	2:R:109:LYS:N	2.25	0.62
1:O:41:THR:O	1:O:45:LYS:N	2.19	0.62
1:O:79:PRO:HG3	1:O:108:HIS:CD2	2.34	0.62
1:O:198:ALA:HB1	1:O:201:LEU:HD13	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:14:ASN:OD1	2:P:320:SER:OG	2.06	0.62
2:P:82:VAL:HG22	2:P:109:LYS:HB3	1.80	0.62
2:P:291:SER:OG	2:P:322:ARG:NH1	2.30	0.62
2:P:318:GLY:O	2:P:322:ARG:N	2.26	0.62
1:G:42:HIS:CD2	2:F:195:LEU:HB3	2.34	0.62
2:H:32:ILE:O	2:H:75:VAL:N	2.31	0.62
2:H:178:THR:OG1	2:H:241:VAL:N	2.27	0.62
1:E:325:ALA:O	1:E:329:ALA:N	2.30	0.62
1:I:32:ASP:HB3	1:I:73:VAL:HG13	1.80	0.62
1:I:171:THR:HB	1:I:226:ASN:HB3	1.81	0.62
2:J:14:ASN:OD1	2:J:320:SER:OG	2.17	0.62
2:L:10:ARG:O	2:L:14:ASN:N	2.25	0.62
2:L:81:PRO:HB2	2:L:109:LYS:HB2	1.79	0.62
1:A:149:CYS:HB3	1:A:317:TYR:CG	2.34	0.62
1:A:186:ASP:OD1	1:A:198:ALA:N	2.26	0.62
1:C:15:PHE:O	1:C:18(A):TRP:N	2.17	0.62
1:C:115:LYS:NZ	1:C:142:ASN:OD1	2.33	0.62
1:C:132:VAL:N	1:C:134:GLU:OE1	2.33	0.62
1:C:149:CYS:HA	1:C:152:ASN:HB2	1.80	0.62
2:D:119:LEU:HG	2:D:148:SER:HA	1.81	0.62
2:D:295:ASP:OD1	2:D:297:SER:OG	2.14	0.62
2:R:16:LEU:HD13	2:R:45:LEU:HD13	1.80	0.62
2:R:194:ASP:O	2:R:198:ALA:N	2.32	0.62
1:O:30:VAL:O	1:O:74:VAL:N	2.31	0.62
2:H:31:VAL:HG21	2:H:74:LYS:NZ	2.15	0.62
1:E:85:ALA:N	1:E:112:GLY:HA3	2.14	0.62
2:F:171:ILE:N	2:F:247:GLN:O	2.32	0.62
1:I:131:GLY:N	1:I:134:GLU:OE2	2.32	0.62
2:J:194:ASP:O	2:J:198:ALA:N	2.33	0.62
2:J:204:ASN:HD21	2:L:283:ILE:HG22	1.63	0.62
1:K:45:LYS:NZ	1:K:53:PHE:O	2.26	0.62
1:K:121:PRO:HG3	1:K:148:SER:N	2.14	0.62
2:L:60:THR:HA	2:L:66:ILE:HA	1.80	0.62
1:A:278:LEU:O	1:C:194:ARG:NH1	2.33	0.62
2:B:179:HIS:HB3	2:B:233:ARG:HA	1.80	0.62
2:B:240:SER:N	2:B:315:ASN:OD1	2.31	0.62
1:C:126:PRO:HG3	1:O:103:PRO:HG3	1.79	0.62
2:D:272:ILE:O	2:D:291:SER:N	2.21	0.62
2:D:289:ASP:N	2:D:289:ASP:OD1	2.32	0.62
1:Q:32:ASP:OD1	1:Q:36:GLY:N	2.33	0.62
2:R:41:ALA:HA	2:R:44:LEU:HB2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:78:ASP:OD2	1:O:81:LYS:NZ	2.25	0.62
2:P:86:TRP:CZ2	2:P:110:HIS:HA	2.34	0.62
2:P:314:ASP:OD1	2:P:317:TRP:N	2.30	0.62
1:G:149:CYS:HA	1:G:152:ASN:HD22	1.64	0.62
2:F:168:PHE:O	2:F:249:SER:OG	2.17	0.62
1:I:31:ASN:HD21	1:I:76:ASN:H	1.46	0.62
2:J:16:LEU:O	2:J:20:HIS:N	2.20	0.62
2:J:43:HIS:O	2:J:47:TYR:N	2.28	0.62
2:L:29:VAL:O	2:L:73:ILE:HG23	1.99	0.62
2:L:239:VAL:HG22	2:L:314:ASP:HA	1.82	0.62
1:A:176:HIS:O	1:A:232:VAL:N	2.20	0.62
2:B:86:TRP:O	2:B:90:GLY:N	2.33	0.62
2:B:180:SER:HA	2:B:236:THR:HG22	1.82	0.62
2:B:182:THR:H	2:B:185:GLN:HB2	1.64	0.62
1:C:58:LYS:HZ1	1:C:59:ILE:H	1.47	0.62
1:C:176:HIS:O	1:C:232:VAL:N	2.24	0.62
1:C:193:LEU:O	1:C:197:ARG:N	2.33	0.62
2:D:40:GLN:O	2:D:44:LEU:N	2.23	0.62
2:R:22:ARG:NH2	2:R:321:GLN:O	2.32	0.62
2:P:5:ILE:HG23	2:P:95:ILE:HB	1.80	0.62
1:G:299:VAL:HG22	1:G:305:VAL:HG13	1.81	0.62
2:F:205:ILE:HG23	2:F:207:PRO:HD3	1.80	0.62
2:L:105:ASP:OD2	2:L:109:LYS:NZ	2.31	0.62
2:L:245:VAL:HG22	2:L:308:LYS:HA	1.82	0.62
1:A:58:LYS:O	1:A:65:SER:N	2.23	0.62
1:A:148:SER:OG	1:A:150:THR:OG1	2.17	0.62
2:B:183:GLY:H	1:C:185:LEU:HD11	1.65	0.62
1:C:100:VAL:HB	1:C:122(A):LYS:HB2	1.82	0.62
1:Q:115:LYS:HE3	1:Q:139:HIS:CE1	2.35	0.62
1:Q:186:ASP:OD1	1:Q:198:ALA:N	2.26	0.62
2:R:67:SER:HA	2:R:72:VAL:HG13	1.80	0.62
1:O:60:ILE:HD11	1:O:65:SER:HB3	1.82	0.62
1:O:135:LYS:O	1:O:331:LYS:NZ	2.28	0.62
2:P:243:ASP:N	2:P:243:ASP:OD2	2.31	0.62
1:E:164:GLU:O	1:E:248:LYS:NZ	2.30	0.62
1:E:270:VAL:HG12	1:E:271:LEU:HD12	1.82	0.62
1:K:6:ASN:HB3	1:K:92:VAL:HG13	1.80	0.62
1:K:176:HIS:O	1:K:232:VAL:N	2.25	0.62
1:A:5:ILE:HB	1:A:30:VAL:HA	1.80	0.62
1:A:270:VAL:O	1:A:290:SER:N	2.32	0.62
2:B:1:LEU:N	2:B:28:ASP:H	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:184:ASP:OD2	2:B:184:ASP:N	2.32	0.62
2:B:317:TRP:O	2:B:320:SER:OG	2.18	0.62
1:Q:126:PRO:HB2	1:Q:128:TYR:CE1	2.35	0.62
1:Q:300:MET:HB3	1:Q:304:MET:HB3	1.80	0.62
2:R:6:ASN:HB3	2:R:96:GLU:HA	1.80	0.62
1:G:93:ILE:HA	1:G:117:ILE:HB	1.80	0.62
1:G:177:SER:HA	1:G:234:THR:HG23	1.79	0.62
1:G:226:ASN:OD1	1:G:227:GLY:N	2.30	0.62
1:G:241:ASP:HB2	1:G:308:VAL:HG13	1.82	0.62
2:F:186:ARG:HB3	2:F:188:LEU:O	2.00	0.62
2:F:315:ASN:OD1	2:F:315:ASN:N	2.32	0.62
2:J:153:THR:OG1	2:J:154:THR:N	2.33	0.62
1:K:129:VAL:N	1:K:133:ASN:OD1	2.31	0.62
1:O:237:VAL:HA	1:O:312:ASP:HA	1.81	0.62
1:G:90:ASP:O	1:G:115:LYS:N	2.33	0.62
1:G:169:LYS:HE3	1:E:300:MET:HG3	1.80	0.62
1:G:281:VAL:CG1	2:H:49:SER:HA	2.20	0.62
2:H:157:LEU:HD21	2:H:212:ALA:HB1	1.81	0.62
1:I:170:GLY:HA3	1:I:244:VAL:HG12	1.80	0.62
2:J:86:TRP:O	2:J:90:GLY:N	2.32	0.62
2:J:187:LEU:HD13	1:K:184:LEU:HA	1.82	0.62
1:K:179:THR:N	1:K:182:GLN:OE1	2.33	0.62
2:B:43:HIS:O	2:B:47:TYR:N	2.32	0.62
2:B:104:ARG:NH2	2:B:129:PRO:HD3	2.15	0.62
2:D:22:ARG:NH1	2:D:328:ASP:OD2	2.32	0.62
1:O:214:VAL:O	1:O:218:LEU:N	2.32	0.62
2:P:295:ASP:OD1	2:P:297:SER:OG	2.18	0.62
1:G:273:VAL:HG22	1:G:292:ILE:HB	1.82	0.62
1:G:281:VAL:HA	1:G:284:ARG:HG2	1.82	0.62
1:E:132:VAL:HG13	1:E:159:LYS:HD2	1.82	0.62
2:F:9:GLY:O	2:F:13:ARG:N	2.20	0.62
2:F:181:TYR:HD2	2:F:235:PRO:HA	1.64	0.62
1:I:46:TYR:HB2	2:L:199:ARG:HH12	1.65	0.62
1:I:70:PRO:O	1:I:72:LYS:NZ	2.23	0.62
2:J:46:LYS:O	2:J:54:PHE:N	2.33	0.62
2:J:188:LEU:HD22	1:K:180:GLY:H	1.65	0.62
1:K:115:LYS:NZ	1:K:142:ASN:OD1	2.33	0.62
2:B:4:ALA:HA	2:B:31:VAL:O	2.00	0.62
2:D:272:ILE:O	2:D:322:ARG:NH1	2.32	0.62
2:R:102:VAL:O	2:R:125:LYS:N	2.33	0.62
1:O:102:GLY:O	1:O:106:GLY:N	2.31	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:51:LEU:HD22	2:P:287:CYS:HB2	1.82	0.62
2:P:326:LEU:HA	2:P:329:ILE:HD12	1.81	0.62
2:H:95:ILE:HA	2:H:119:LEU:O	2.00	0.62
2:H:105:ASP:OD2	2:H:109:LYS:NZ	2.33	0.62
2:H:189:ASP:OD2	2:H:199:ARG:NE	2.31	0.62
1:E:76:ASN:HB3	1:E:82:LEU:HD11	1.82	0.62
1:E:225:LEU:O	1:E:226:ASN:ND2	2.33	0.62
1:I:112:GLY:O	1:I:114:LYS:NZ	2.26	0.61
2:J:10:ARG:HH22	1:K:186:ASP:HB2	1.65	0.61
2:J:181:TYR:HD2	2:J:235:PRO:HA	1.63	0.61
1:K:168:VAL:HG12	1:K:169:LYS:HG3	1.81	0.61
1:K:327:LEU:HD12	1:K:330:ASN:HB2	1.82	0.61
2:B:106:GLY:O	2:B:110:HIS:N	2.29	0.61
2:B:172:LYS:NZ	2:D:302:MET:O	2.33	0.61
2:D:246:VAL:HG23	2:D:307:VAL:HB	1.81	0.61
2:D:315:ASN:N	2:D:315:ASN:OD1	2.32	0.61
1:Q:6:ASN:HD21	1:Q:96:THR:HG23	1.64	0.61
1:Q:162:ASP:OD1	1:Q:167:ILE:N	2.30	0.61
1:O:126:PRO:HG2	1:O:144:ILE:HA	1.80	0.61
1:E:146:ASN:HD21	1:E:320:ARG:HB2	1.65	0.61
1:E:272:ASP:O	1:E:292:ILE:N	2.23	0.61
1:E:328:VAL:O	1:E:332:TRP:N	2.33	0.61
1:I:132:VAL:HG22	1:I:159:LYS:HD2	1.82	0.61
2:J:196:ARG:NH1	2:L:280:LEU:O	2.34	0.61
2:L:78:ASP:OD1	2:L:80:ASN:N	2.32	0.61
1:C:7:GLY:HA2	1:C:31:ASN:HB3	1.81	0.61
1:Q:60:ILE:HB	1:Q:63:THR:O	2.00	0.61
1:Q:226:ASN:HD22	1:O:300:MET:HA	1.64	0.61
1:Q:255:VAL:O	1:Q:259:PHE:N	2.33	0.61
1:Q:319:GLN:O	1:Q:322:VAL:HG23	2.00	0.61
2:R:173:GLY:H	2:R:227:LEU:HA	1.64	0.61
2:R:194:ASP:HB3	2:R:197:ARG:HB2	1.82	0.61
2:P:205:ILE:HG13	2:P:234:VAL:HA	1.83	0.61
1:G:190:HIS:HE1	1:G:192:ASP:HB3	1.64	0.61
1:G:300:MET:HB3	1:G:304:MET:HB3	1.82	0.61
2:H:135:VAL:HB	2:H:219:VAL:HB	1.82	0.61
2:H:241:VAL:HG22	2:H:312:TRP:HA	1.82	0.61
2:F:98:THR:HA	3:F:401:NAD:H3B	1.81	0.61
1:I:10:ARG:N	3:Q:401:NAD:O3	2.17	0.61
1:I:281:VAL:HA	1:I:284:ARG:HG2	1.82	0.61
2:J:180:SER:HA	2:J:236:THR:HG22	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:258:ALA:O	1:K:262:ALA:N	2.26	0.61
1:K:262:ALA:HB1	1:K:267:LEU:HD12	1.81	0.61
1:K:300:MET:N	1:K:304:MET:O	2.25	0.61
2:L:240:SER:HB3	2:L:315:ASN:HD21	1.64	0.61
1:A:8:PHE:O	1:A:13:ARG:NH1	2.33	0.61
1:A:10:ARG:HH22	1:A:48:SER:H	1.45	0.61
1:A:29:VAL:HG11	1:A:87:LEU:HD13	1.81	0.61
2:B:205:ILE:HD11	2:B:232:LEU:HB3	1.82	0.61
2:R:81:PRO:HD2	2:R:109:LYS:HE2	1.82	0.61
1:O:66:ILE:N	1:O:69:LYS:O	2.20	0.61
1:O:82:LEU:HB2	1:O:84:TRP:CH2	2.36	0.61
1:O:319:GLN:HA	1:O:322:VAL:HG23	1.81	0.61
1:G:46:TYR:HA	1:G:52:THR:HA	1.82	0.61
1:G:151:THR:HA	1:G:154:LEU:HB3	1.81	0.61
1:I:195:ARG:NH2	1:I:231:ARG:HH12	1.98	0.61
1:I:256:ASN:HA	1:I:259:PHE:HB2	1.82	0.61
2:B:7:GLY:HA3	2:B:98:THR:HG22	1.83	0.61
1:C:38:LYS:HZ3	1:C:39:SER:H	1.46	0.61
2:D:3:VAL:HG21	2:D:27:LEU:HB3	1.82	0.61
2:D:181:TYR:HD2	2:D:235:PRO:HA	1.64	0.61
1:Q:287:ASP:N	1:Q:287:ASP:OD1	2.34	0.61
2:R:272:ILE:O	2:R:291:SER:OG	2.15	0.61
1:O:57:VAL:HG22	1:O:66:ILE:HA	1.83	0.61
2:P:1:LEU:HD22	2:P:331:ALA:HA	1.82	0.61
1:G:156:PRO:HA	1:G:159:LYS:HD3	1.81	0.61
1:G:190:HIS:ND1	1:G:195:ARG:HB2	2.14	0.61
2:F:96:GLU:OE2	2:F:98:THR:OG1	2.17	0.61
2:F:111:LEU:HA	2:F:115:ALA:HB3	1.82	0.61
1:A:70:PRO:O	1:A:72:LYS:NZ	2.23	0.61
1:A:178:TYR:N	1:A:234:THR:O	2.34	0.61
1:A:191:ARG:HG3	1:G:357:GLU:O	2.01	0.61
1:C:11:ILE:H	3:C:401:NAD:PN	2.23	0.61
1:C:30:VAL:O	1:C:74:VAL:N	2.33	0.61
1:C:139:HIS:NE2	1:C:332:TRP:HA	2.14	0.61
1:Q:46:TYR:HA	1:Q:52:THR:HA	1.83	0.61
1:Q:241:ASP:HB2	1:Q:308:VAL:HG13	1.81	0.61
1:O:65:SER:HA	1:O:70:PRO:HA	1.83	0.61
2:P:46:LYS:NZ	2:P:54:PHE:O	2.28	0.61
2:P:130:THR:HG21	2:P:218:LEU:HB3	1.81	0.61
1:G:287:ASP:OD2	1:G:319:GLN:NE2	2.33	0.61
1:E:84:TRP:HB3	1:E:89:ILE:HB	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:117:ILE:HA	1:E:144:ILE:HG12	1.82	0.61
1:E:135:LYS:O	1:E:331:LYS:NZ	2.31	0.61
1:E:185:LEU:HA	1:E:198:ALA:HB2	1.83	0.61
1:K:241:ASP:OD1	1:K:307:VAL:N	2.31	0.61
1:A:50:LEU:HD22	1:A:285:CYS:HB2	1.81	0.61
2:B:11:ILE:H	3:B:401:NAD:PN	2.23	0.61
2:B:240:SER:N	2:B:313:TYR:O	2.34	0.61
2:B:273:LEU:HD12	2:B:292:SER:HB3	1.83	0.61
2:D:262:ARG:O	2:D:266:ASP:N	2.32	0.61
1:G:139(A):ASP:OD1	1:G:142:ASN:ND2	2.34	0.61
2:F:46:LYS:NZ	2:F:54:PHE:O	2.28	0.61
2:J:4:ALA:HA	2:J:31:VAL:O	2.00	0.61
2:J:104:ARG:NH2	2:J:129:PRO:HD3	2.15	0.61
2:J:140:TYR:O	2:J:333:LYS:NZ	2.33	0.61
2:J:208:THR:HG23	2:J:231:ALA:HB3	1.82	0.61
2:J:273:LEU:HD12	2:J:294:ILE:HD11	1.82	0.61
1:K:6:ASN:N	1:K:93:ILE:O	2.34	0.61
2:L:163:VAL:O	2:L:167:LYS:N	2.26	0.61
1:A:193:LEU:HD12	1:A:194:ARG:H	1.66	0.61
2:B:203:LEU:HD23	2:D:236:THR:HA	1.82	0.61
1:C:142:ASN:OD1	1:C:142:ASN:N	2.33	0.61
1:C:327:LEU:HD12	1:C:330:ASN:HB2	1.83	0.61
2:R:95:ILE:HA	2:R:119:LEU:O	2.00	0.61
2:P:0:LYS:HZ2	2:P:1:LEU:HD13	1.66	0.61
2:P:135:VAL:HG13	2:P:162:LYS:HZ1	1.65	0.61
2:P:215:ALA:O	2:P:219:VAL:N	2.32	0.61
1:G:162:ASP:OD1	1:G:167:ILE:N	2.30	0.61
1:E:10:ARG:NH2	1:E:314:GLU:OE1	2.27	0.61
1:E:78:ASP:HB3	1:E:81:LYS:HD2	1.81	0.61
2:F:289:ASP:O	2:F:322:ARG:NH1	2.32	0.61
1:I:36:GLY:O	1:I:39:SER:OG	2.18	0.61
1:I:219:PRO:HA	1:I:222:LYS:HB2	1.83	0.61
2:J:289:ASP:N	2:J:289:ASP:OD1	2.32	0.61
1:C:230:LEU:O	1:C:232:VAL:HG13	2.00	0.61
2:D:39:LYS:HD2	2:D:40:GLN:N	2.14	0.61
1:Q:215:SER:HB2	1:Q:222:LYS:HG2	1.82	0.61
1:Q:257:ASN:O	1:Q:261:LYS:N	2.33	0.61
2:R:157:LEU:HD21	2:R:212:ALA:HB1	1.82	0.61
2:R:283:ILE:HD12	2:R:286:ARG:HD2	1.83	0.61
2:P:264:SER:O	2:P:269:LEU:N	2.34	0.61
1:G:51:GLY:HA2	2:H:283:ILE:HD11	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:212:LYS:O	1:G:215:SER:OG	2.17	0.61
2:H:184:ASP:OD2	2:H:185:GLN:NE2	2.33	0.61
1:E:169:LYS:HA	1:E:224:LYS:HB3	1.81	0.61
2:F:295:ASP:O	2:F:299:THR:N	2.32	0.61
1:I:297:THR:HG23	1:I:307:VAL:HA	1.83	0.61
2:J:240:SER:N	2:J:315:ASN:OD1	2.34	0.61
2:L:207:PRO:HA	2:L:232:LEU:HA	1.81	0.61
2:B:48:ASP:OD2	2:B:51:LEU:N	2.34	0.61
1:C:183:ARG:NH2	1:C:188:SER:O	2.34	0.61
2:D:102:VAL:HG22	2:D:124:GLY:HA2	1.83	0.61
1:Q:115:LYS:HG2	1:Q:142:ASN:HB3	1.83	0.61
1:Q:300:MET:N	1:Q:304:MET:O	2.31	0.61
2:R:246:VAL:HG23	2:R:307:VAL:HB	1.81	0.61
1:O:99:PHE:HE1	1:O:107:LYS:HZ3	1.48	0.61
1:O:161:LEU:O	1:O:165:LEU:N	2.28	0.61
2:P:186:ARG:HB3	2:P:188:LEU:O	2.00	0.61
1:G:25:LEU:H	1:G:25:LEU:HD13	1.66	0.61
1:G:84:TRP:HA	1:G:87:LEU:HB2	1.82	0.61
1:G:275:ASP:OD2	1:G:295:SER:N	2.34	0.61
1:G:298:MET:HG2	1:G:306:LYS:HB3	1.83	0.61
2:F:264:SER:O	2:F:269:LEU:N	2.33	0.61
1:I:172:MET:SD	1:I:227:GLY:HA3	2.41	0.61
2:J:274:SER:HB3	2:J:290:VAL:HG11	1.82	0.61
1:K:30:VAL:O	1:K:74:VAL:N	2.33	0.61
1:K:132:VAL:N	1:K:134:GLU:OE1	2.33	0.61
2:L:276:CYS:SG	2:L:277:ASP:N	2.74	0.61
1:A:228:ILE:HD12	1:C:306:LYS:HD3	1.82	0.61
1:C:64:PHE:O	1:C:71:ILE:N	2.34	0.61
1:C:107:LYS:O	1:C:111:ALA:N	2.30	0.61
1:Q:310:TRP:CH2	1:O:203:ILE:HB	2.36	0.61
2:R:15:PHE:O	2:R:19:TRP:N	2.23	0.61
1:O:172:MET:HB2	1:O:240:VAL:HB	1.82	0.61
1:O:225:LEU:O	1:O:226:ASN:ND2	2.34	0.61
2:P:152:CYS:O	2:P:156:CYS:N	2.32	0.61
2:H:199:ARG:NH1	1:E:46:TYR:O	2.34	0.61
2:F:318:GLY:O	2:F:322:ARG:N	2.24	0.61
2:J:264:SER:O	2:J:269:LEU:N	2.34	0.60
1:K:256:ASN:HA	1:K:259:PHE:HB2	1.82	0.60
1:A:256:ASN:HA	1:A:259:PHE:HB2	1.82	0.60
1:C:11:ILE:N	3:C:401:NAD:O1N	2.30	0.60
2:D:97:GLY:O	3:D:401:NAD:O3D	2.18	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:319:GLN:HB2	1:O:320:ARG:NH2	2.15	0.60
2:P:8:PHE:O	2:P:13:ARG:NH2	2.34	0.60
2:P:20:HIS:O	2:P:23:LYS:NZ	2.33	0.60
2:P:60:THR:HA	2:P:66:ILE:HA	1.83	0.60
2:P:165:ASP:OD1	2:P:170:ILE:N	2.33	0.60
1:G:118:ILE:HB	1:G:145:SER:HA	1.83	0.60
2:H:38:VAL:HG12	2:H:75:VAL:CG1	2.31	0.60
2:F:240:SER:N	2:F:315:ASN:OD1	2.33	0.60
1:I:115:LYS:HA	1:I:142:ASN:HB2	1.82	0.60
2:L:240:SER:N	2:L:313:TYR:O	2.32	0.60
1:A:42:HIS:O	1:A:46:TYR:N	2.31	0.60
2:D:58:VAL:HB	2:D:68:VAL:HA	1.83	0.60
2:D:134:GLY:O	2:D:162:LYS:NZ	2.21	0.60
2:D:206:VAL:O	2:D:233:ARG:N	2.33	0.60
1:Q:230:LEU:HD22	1:Q:232:VAL:HG12	1.83	0.60
2:R:108:GLY:O	2:R:112:GLN:N	2.34	0.60
2:R:135:VAL:HB	2:R:219:VAL:HB	1.82	0.60
2:P:46:LYS:O	2:P:46:LYS:NZ	2.34	0.60
2:P:136:ASN:HD21	2:P:219:VAL:HG12	1.66	0.60
2:P:289:ASP:O	2:P:322:ARG:NH1	2.33	0.60
1:G:31:ASN:ND2	3:G:401:NAD:H2A	2.16	0.60
1:G:85:ALA:N	1:G:111:ALA:O	2.34	0.60
2:H:180:SER:OG	2:H:236:THR:O	2.10	0.60
1:E:160:VAL:HG21	1:E:267:LEU:HD11	1.83	0.60
1:E:267:LEU:HD13	1:E:271:LEU:HD22	1.82	0.60
2:F:160:PHE:O	2:F:164:LEU:N	2.34	0.60
2:F:295:ASP:OD1	2:F:297:SER:OG	2.18	0.60
1:A:362:GLU:O	3:G:401:NAD:O3D	2.19	0.60
2:B:14:ASN:HD21	2:B:317:TRP:HB2	1.66	0.60
2:B:189:ASP:OD1	2:B:200:ALA:N	2.28	0.60
1:C:179:THR:HG1	1:C:231:ARG:NH2	1.98	0.60
1:C:213:ALA:HA	1:C:216:LEU:HG	1.83	0.60
2:D:160:PHE:HA	2:D:163:VAL:HB	1.84	0.60
1:Q:31:ASN:HD21	1:Q:76:ASN:H	1.48	0.60
1:Q:137:TYR:HE2	1:Q:331:LYS:HG3	1.66	0.60
1:Q:192:ASP:OD2	1:Q:195:ARG:N	2.24	0.60
2:R:5:ILE:HG22	2:R:32:ILE:HD11	1.83	0.60
2:R:184:ASP:OD2	2:R:185:GLN:NE2	2.34	0.60
1:O:10:ARG:HA	1:O:13:ARG:NE	2.16	0.60
2:P:320:SER:O	2:P:324:VAL:HG23	2.00	0.60
1:G:139:HIS:CE1	1:G:333:PRO:HD3	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:211:GLY:O	2:H:215:ALA:N	2.21	0.60
2:H:291:SER:OG	2:H:322:ARG:NH1	2.30	0.60
2:F:289:ASP:OD1	2:F:317:TRP:NE1	2.33	0.60
1:I:34:GLY:O	1:I:39:SER:OG	2.14	0.60
2:J:326:LEU:HD12	2:J:329:ILE:HB	1.83	0.60
1:K:170:GLY:HA3	1:K:244:VAL:HG12	1.83	0.60
1:K:195:ARG:NH1	1:E:361:TYR:O	2.34	0.60
1:K:253:GLU:O	1:K:257:ASN:ND2	2.33	0.60
2:L:177:THR:OG1	2:L:313:TYR:OH	2.18	0.60
2:B:92:ASP:O	2:B:117:LYS:N	2.34	0.60
2:B:142:HIS:HD2	2:B:336:ALA:H	1.48	0.60
1:C:92:VAL:HG21	1:C:108:HIS:HB3	1.84	0.60
2:D:276:CYS:SG	2:D:277:ASP:N	2.74	0.60
2:P:295:ASP:O	2:P:299:THR:N	2.32	0.60
1:G:93:ILE:HG22	1:G:119:THR:HG22	1.84	0.60
1:G:239:VAL:HA	1:G:311:TYR:CE1	2.36	0.60
2:H:209:SER:OG	2:H:214:LYS:NZ	2.31	0.60
2:H:257:VAL:O	2:H:261:PHE:N	2.25	0.60
1:E:134:GLU:HB2	1:E:327:LEU:HD13	1.84	0.60
2:F:185:GLN:HG2	2:F:233:ARG:HD3	1.81	0.60
2:F:186:ARG:HH22	2:F:193:ARG:HH22	1.50	0.60
1:I:39:SER:O	1:I:43:LEU:N	2.31	0.60
1:I:178:TYR:N	1:I:234:THR:O	2.34	0.60
2:J:85:PRO:HA	2:J:113:ALA:HB1	1.82	0.60
2:J:92:ASP:O	2:J:117:LYS:N	2.34	0.60
2:J:205:ILE:HD11	2:J:232:LEU:HB3	1.82	0.60
1:K:178:TYR:N	1:K:234:THR:O	2.34	0.60
2:L:182:THR:OG1	2:L:233:ARG:NH1	2.34	0.60
2:L:317:TRP:O	2:L:321:GLN:HG2	2.01	0.60
1:A:8:PHE:HB2	1:A:30:VAL:HG11	1.83	0.60
1:A:219:PRO:HA	1:A:222:LYS:HB2	1.81	0.60
2:B:9:GLY:HA2	3:B:401:NAD:H4B	1.83	0.60
2:B:192:HIS:CE1	2:B:194:ASP:H	2.20	0.60
2:D:42:SER:HB3	2:D:66:ILE:CD1	2.30	0.60
2:D:46:LYS:O	2:D:53:THR:OG1	2.08	0.60
2:D:251:LYS:HE3	2:D:304:ASP:HB2	1.82	0.60
1:O:90:ASP:N	1:O:90:ASP:OD1	2.34	0.60
1:G:16:LEU:HA	1:G:18(A):TRP:HB3	1.83	0.60
1:G:272:ASP:HB3	1:G:291:THR:HG22	1.82	0.60
2:F:38:VAL:CG2	2:F:63:ASP:O	2.50	0.60
2:F:326:LEU:HA	2:F:329:ILE:HD12	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:149:CYS:HB3	1:I:317:TYR:CG	2.36	0.60
1:I:190:HIS:ND1	1:Q:357:GLU:O	2.29	0.60
2:J:1:LEU:HD11	2:J:334:TRP:CD2	2.36	0.60
1:K:30:VAL:HB	1:K:73:VAL:HG22	1.83	0.60
2:L:142:HIS:H	2:L:333:LYS:HE2	1.66	0.60
2:B:78:ASP:OD1	2:B:80:ASN:N	2.30	0.60
2:B:173:GLY:HA3	2:B:227:LEU:HD13	1.83	0.60
2:B:251:LYS:NZ	2:B:303:GLY:O	2.30	0.60
1:C:90:ASP:N	1:C:90:ASP:OD1	2.33	0.60
2:D:240:SER:N	2:D:313:TYR:O	2.35	0.60
2:R:136:ASN:HD21	2:R:219:VAL:HG12	1.65	0.60
1:O:279:VAL:O	1:O:282:ASP:N	2.35	0.60
2:P:122:ALA:O	2:P:148:SER:OG	2.17	0.60
1:G:32:ASP:OD1	1:G:36:GLY:N	2.35	0.60
1:G:78:ASP:HB3	1:G:81:LYS:HD2	1.83	0.60
2:H:73:ILE:O	2:H:73:ILE:HG22	2.02	0.60
1:E:190:HIS:NE2	1:E:192:ASP:HB3	2.16	0.60
2:F:154:THR:HG23	2:F:212:ALA:HA	1.83	0.60
1:I:101:ASP:OD1	1:I:104:GLY:N	2.35	0.60
1:K:126:PRO:HG3	1:E:103:PRO:HG3	1.84	0.60
1:K:230:LEU:O	1:K:232:VAL:HG13	2.01	0.60
2:L:35:THR:HA	2:L:77:SER:HB3	1.83	0.60
2:L:317:TRP:O	2:L:320:SER:OG	2.19	0.60
1:C:256:ASN:HA	1:C:259:PHE:HB2	1.81	0.60
2:D:274:SER:C	2:D:293:THR:HA	2.22	0.60
1:Q:118:ILE:HD11	1:Q:143:ILE:HG22	1.83	0.60
1:Q:179:THR:N	1:Q:182:GLN:OE1	2.34	0.60
2:R:59:LYS:HA	2:R:59:LYS:NZ	2.17	0.60
1:O:17:ARG:NH1	1:O:51:GLY:O	2.21	0.60
2:H:194:ASP:HB3	2:H:197:ARG:HB2	1.83	0.60
1:E:260:ARG:HG3	1:E:273:VAL:HB	1.84	0.60
2:F:152:CYS:O	2:F:156:CYS:N	2.30	0.60
1:I:19:GLY:O	1:I:21:LYS:NZ	2.35	0.60
1:I:181:ASP:OD1	1:I:181:ASP:N	2.29	0.60
1:I:251:THR:HG22	1:I:253:GLU:H	1.66	0.60
2:J:10:ARG:HA	2:J:13:ARG:HD2	1.83	0.60
2:J:102:VAL:HG23	2:J:120:ILE:HG21	1.82	0.60
2:J:320:SER:O	2:J:324:VAL:N	2.29	0.60
1:K:0:LYS:H2	1:K:25:LEU:C	2.05	0.60
2:L:97:GLY:O	3:L:401:NAD:O3D	2.20	0.60
1:A:185:LEU:HD11	2:D:182:THR:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:246:ILE:N	1:A:303:ASP:O	2.30	0.60
2:B:22:ARG:NH2	2:B:325:ASP:OD1	2.28	0.60
2:B:274:SER:O	2:B:294:ILE:HG12	2.02	0.60
1:C:190:HIS:CE1	1:C:191:ARG:HG2	2.36	0.60
1:Q:182:GLN:NE2	1:Q:182:GLN:O	2.35	0.60
1:O:181:ASP:OD2	1:O:195:ARG:NH1	2.35	0.60
1:O:272:ASP:O	1:O:292:ILE:N	2.26	0.60
1:G:256:ASN:HD22	1:G:294:SER:HB2	1.67	0.60
2:H:174:THR:HG21	2:F:245:VAL:HG11	1.83	0.60
1:E:204:VAL:O	1:E:206:THR:OG1	2.18	0.60
2:F:10:ARG:HA	2:F:13:ARG:HD2	1.82	0.60
2:F:130:THR:O	2:F:136:ASN:ND2	2.35	0.60
2:F:248:VAL:HG22	2:F:305:ASP:HA	1.83	0.60
2:F:289:ASP:OD1	2:F:289:ASP:N	2.35	0.60
2:F:320:SER:O	2:F:324:VAL:N	2.23	0.60
1:K:41:THR:HG21	1:K:59:ILE:HG12	1.82	0.60
1:K:253:GLU:HA	1:K:256:ASN:HD21	1.66	0.60
2:L:151:SER:O	2:L:155:ASN:N	2.21	0.60
2:L:180:SER:HB2	2:L:236:THR:HG23	1.84	0.60
1:A:238:SER:OG	1:A:313:ASN:ND2	2.35	0.60
1:A:257:ASN:N	1:A:260:ARG:HH21	2.00	0.60
2:B:269:LEU:HB3	2:B:273:LEU:HD23	1.82	0.60
1:C:129:VAL:H	1:C:133:ASN:CG	2.05	0.60
2:D:98:THR:HA	3:D:401:NAD:H52A	1.84	0.60
2:D:133:VAL:HA	2:D:137:GLU:HB3	1.83	0.60
1:Q:101:ASP:HB2	1:Q:103:PRO:HG2	1.83	0.60
1:Q:318:SER:OG	1:Q:319:GLN:OE1	2.19	0.60
2:R:116:LYS:O	2:R:145:THR:OG1	2.17	0.60
1:O:84:TRP:HA	1:O:87:LEU:HD12	1.82	0.60
2:P:54:PHE:C	2:P:56:ALA:H	2.05	0.60
1:G:18(B):HIS:HB3	1:G:53:PHE:HZ	1.65	0.60
2:H:176:THR:OG1	2:H:243:ASP:O	2.16	0.60
2:F:135:VAL:HG13	2:F:162:LYS:HZ1	1.67	0.60
1:K:19:GLY:O	1:K:21:LYS:NZ	2.35	0.60
1:K:169:LYS:HE3	1:K:245:ASN:HD21	1.66	0.60
2:L:251:LYS:HE3	2:L:304:ASP:HB2	1.83	0.60
1:A:39:SER:O	1:A:43:LEU:N	2.33	0.60
1:A:251:THR:HG22	1:A:253:GLU:H	1.65	0.60
2:B:6:ASN:O	2:B:97:GLY:N	2.33	0.60
2:B:48:ASP:OD2	2:B:52:GLY:N	2.34	0.60
2:B:92:ASP:OD1	2:B:116:LYS:NZ	2.26	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:162:ASP:OD1	1:C:167:ILE:N	2.34	0.60
2:D:239:VAL:HB	2:D:282:SER:HB2	1.82	0.60
2:R:163:VAL:O	2:R:167:LYS:N	2.33	0.60
2:R:253:PHE:CZ	2:R:255:GLU:HB3	2.37	0.60
2:R:281:VAL:HB	2:P:204:ASN:HD22	1.67	0.60
1:O:87:LEU:HB2	1:O:89:ILE:HG12	1.84	0.60
1:O:137:TYR:CD2	1:O:331:LYS:HB3	2.36	0.60
1:O:157:PHE:HD2	1:O:271:LEU:HD11	1.66	0.60
2:P:205:ILE:HG23	2:P:207:PRO:HD3	1.83	0.60
1:G:5:ILE:HB	1:G:30:VAL:HG13	1.84	0.60
1:I:182:GLN:HA	1:I:195:ARG:HB3	1.82	0.59
1:K:205:PRO:HA	1:K:228:ILE:HD11	1.84	0.59
1:A:115:LYS:HA	1:A:142:ASN:HD22	1.67	0.59
2:B:171:ILE:HG22	2:B:172:LYS:HG3	1.83	0.59
2:B:320:SER:O	2:B:324:VAL:HG23	2.01	0.59
1:C:112:GLY:O	1:C:114:LYS:NZ	2.24	0.59
1:C:191:ARG:HH22	1:O:347:ASP:HA	1.67	0.59
1:C:274:CYS:O	1:C:294:SER:N	2.33	0.59
1:Q:18(B):HIS:HB3	1:Q:53:PHE:HZ	1.67	0.59
2:R:48:ASP:OD2	2:R:52:GLY:N	2.35	0.59
1:O:128:TYR:HA	1:O:133:ASN:OD1	2.02	0.59
1:G:173:THR:HG23	1:G:230:LEU:HB2	1.84	0.59
1:E:33:SER:OG	1:E:76:ASN:N	2.35	0.59
1:E:279:VAL:O	1:E:282:ASP:N	2.35	0.59
2:F:164:LEU:HB3	2:F:170:ILE:HD11	1.83	0.59
2:F:291:SER:OG	2:F:322:ARG:NH1	2.33	0.59
1:I:271:LEU:HA	1:I:290:SER:HB3	1.84	0.59
2:J:1:LEU:N	2:J:28:ASP:H	1.99	0.59
1:K:5:ILE:HD13	1:K:12:GLY:HA2	1.84	0.59
1:A:274:CYS:SG	1:A:275:ASP:N	2.74	0.59
1:A:314:GLU:OE2	3:A:401:NAD:N7N	2.36	0.59
2:B:1:LEU:HD11	2:B:334:TRP:CD2	2.37	0.59
1:C:155:ALA:O	1:C:159:LYS:N	2.21	0.59
2:D:35:THR:HA	2:D:77:SER:HB3	1.82	0.59
1:Q:57:VAL:HG13	1:Q:66:ILE:HG13	1.83	0.59
1:Q:314:GLU:O	1:Q:318:SER:N	2.31	0.59
2:R:3:VAL:HG22	2:R:93:LEU:H	1.65	0.59
2:R:96:GLU:HG2	2:R:98:THR:HG23	1.84	0.59
2:R:196:ARG:CZ	2:R:207:PRO:HD2	2.32	0.59
1:O:289:SER:HB3	1:O:320:ARG:HD2	1.84	0.59
2:P:35:THR:HA	2:P:77:SER:HB3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:111:LEU:HA	2:P:115:ALA:HB3	1.83	0.59
2:P:171:ILE:N	2:P:247:GLN:O	2.35	0.59
2:P:193:ARG:NE	2:P:193:ARG:H	2.00	0.59
2:P:265:ALA:HA	2:P:269:LEU:HB2	1.84	0.59
2:H:196:ARG:CZ	2:H:207:PRO:HD2	2.33	0.59
2:F:136:ASN:HD21	2:F:219:VAL:HG12	1.66	0.59
1:I:171:THR:O	1:I:242:LEU:HD12	2.02	0.59
1:I:359:LYS:O	1:Q:195:ARG:NH1	2.34	0.59
2:J:142:HIS:NE2	2:J:336:ALA:O	2.35	0.59
1:K:128:TYR:N	1:K:145:SER:O	2.34	0.59
2:L:40:GLN:O	2:L:44:LEU:N	2.22	0.59
1:C:149:CYS:HB3	1:C:317:TYR:HD1	1.66	0.59
2:D:116:LYS:HD2	2:D:336:ALA:HB1	1.84	0.59
2:D:119:LEU:HD12	2:D:147:ILE:HB	1.84	0.59
2:D:239:VAL:HG22	2:D:314:ASP:HA	1.83	0.59
1:Q:96:THR:HA	3:Q:402:NAD:C8A	2.31	0.59
2:R:289:ASP:OD1	2:R:317:TRP:NE1	2.34	0.59
1:O:0:LYS:HB2	1:O:1:LEU:HD22	1.82	0.59
2:P:261:PHE:O	2:P:264:SER:OG	2.20	0.59
1:G:147:ALA:O	1:G:317:TYR:OH	2.11	0.59
2:H:31:VAL:HG22	2:H:74:LYS:HB3	1.79	0.59
2:H:152:CYS:HA	2:H:155:ASN:HB3	1.84	0.59
1:E:76:ASN:OD1	1:E:78:ASP:N	2.26	0.59
1:E:175:THR:HB	1:E:232:VAL:HG11	1.84	0.59
2:F:142:HIS:NE2	2:F:336:ALA:O	2.35	0.59
2:F:263:GLU:OE1	2:F:267:ASN:ND2	2.35	0.59
2:J:142:HIS:HD2	2:J:336:ALA:H	1.49	0.59
1:K:185:LEU:HA	1:K:198:ALA:HB2	1.85	0.59
3:K:402:NAD:H4B	1:E:9:GLY:HA2	1.82	0.59
2:L:274:SER:C	2:L:293:THR:HA	2.23	0.59
1:A:128:TYR:HB3	1:A:134:GLU:HA	1.84	0.59
1:A:177:SER:OG	1:A:237:VAL:O	2.15	0.59
2:D:102:VAL:HG22	2:D:125:LYS:H	1.68	0.59
2:D:240:SER:N	2:D:315:ASN:OD1	2.34	0.59
1:O:11:ILE:HA	1:O:14:ASN:HB2	1.83	0.59
1:O:63:THR:OG1	1:O:72:LYS:NZ	2.30	0.59
2:H:203:LEU:HD22	2:F:237:PRO:HD3	1.84	0.59
1:E:56:ASP:OD1	1:E:58:LYS:NZ	2.34	0.59
1:E:114:LYS:O	1:E:142:ASN:ND2	2.18	0.59
1:E:286:SER:HB3	1:E:312:ASP:HB3	1.83	0.59
2:F:16:LEU:HD22	2:F:45:LEU:HD21	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:10:ARG:HD2	1:I:13:ARG:HE	1.66	0.59
1:I:43:LEU:HD23	2:L:199:ARG:HD3	1.84	0.59
1:I:178:TYR:H	1:I:234:THR:H	1.50	0.59
1:I:272:ASP:N	1:I:290:SER:OG	2.36	0.59
2:J:142:HIS:NE2	2:J:334:TRP:HA	2.18	0.59
1:K:142:ASN:OD1	1:K:142:ASN:N	2.35	0.59
1:K:183:ARG:NH2	1:E:358:CYS:O	2.30	0.59
1:K:203:ILE:HG12	1:K:232:VAL:HG12	1.84	0.59
1:K:343:ASP:O	1:K:347:ASP:N	2.28	0.59
2:L:122:ALA:O	2:L:148:SER:OG	2.20	0.59
1:A:236:ASN:HD21	1:A:314:GLU:H	1.48	0.59
2:B:39:LYS:HZ3	2:B:40:GLN:HG3	1.68	0.59
2:D:58:VAL:HA	2:D:68:VAL:HA	1.83	0.59
2:D:176:THR:N	2:D:243:ASP:O	2.35	0.59
2:R:181:TYR:HE1	1:O:185:LEU:HD21	1.66	0.59
2:R:241:VAL:HG22	2:R:312:TRP:HA	1.82	0.59
2:P:320:SER:O	2:P:324:VAL:N	2.28	0.59
2:P:328:ASP:O	2:P:332:ASN:N	2.29	0.59
1:E:87:LEU:HB2	1:E:89:ILE:HG12	1.85	0.59
2:F:46:LYS:CD	2:F:58:VAL:HG13	2.23	0.59
2:J:120:ILE:H	2:J:148:SER:HA	1.68	0.59
1:A:32:ASP:N	1:A:74:VAL:O	2.36	0.59
2:B:6:ASN:N	2:B:95:ILE:O	2.35	0.59
2:B:104:ARG:O	2:B:108:GLY:N	2.29	0.59
2:B:149:ASN:HD22	2:B:323:VAL:HG22	1.65	0.59
2:B:187:LEU:HB2	1:C:184:LEU:HB2	1.85	0.59
1:C:170:GLY:HA3	1:C:244:VAL:HG12	1.85	0.59
1:O:93:ILE:HG23	1:O:117:ILE:HB	1.84	0.59
2:P:140:TYR:CZ	2:P:142:HIS:HA	2.37	0.59
2:P:185:GLN:HG2	2:P:233:ARG:HD3	1.83	0.59
2:P:263:GLU:OE1	2:P:267:ASN:ND2	2.35	0.59
1:G:15:PHE:HE1	1:G:322:VAL:HG22	1.66	0.59
2:H:213:ALA:HB3	2:H:214:LYS:HZ1	1.67	0.59
1:E:162:ASP:HB2	1:E:221:LEU:HD21	1.85	0.59
1:I:179:THR:N	1:I:182:GLN:HE22	1.94	0.59
1:K:178:TYR:HD2	1:K:233:PRO:HA	1.68	0.59
1:A:134:GLU:OE1	1:A:135:LYS:N	2.25	0.59
2:B:142:HIS:NE2	2:B:336:ALA:O	2.36	0.59
1:C:6:ASN:HD22	1:C:94:GLU:HA	1.67	0.59
1:C:137:TYR:CZ	1:C:331:LYS:HB2	2.38	0.59
1:G:162:ASP:HA	1:G:166:GLY:H	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:184:LEU:HD13	2:F:187:LEU:HD13	1.84	0.59
1:E:58:LYS:O	1:E:65:SER:N	2.29	0.59
1:I:355:ASP:O	1:Q:183:ARG:NH2	2.36	0.59
1:K:0:LYS:HD2	1:K:1:LEU:HD22	1.84	0.59
2:L:102:VAL:HG22	2:L:124:GLY:HA2	1.84	0.59
1:A:106:GLY:O	1:A:110:GLN:N	2.30	0.59
1:A:226:ASN:OD1	1:A:227:GLY:N	2.36	0.59
1:C:256:ASN:HB2	1:C:260:ARG:HH21	1.67	0.59
2:D:179:HIS:HB3	2:D:233:ARG:HA	1.85	0.59
1:O:32:ASP:OD1	1:O:36:GLY:N	2.36	0.59
2:P:130:THR:O	2:P:136:ASN:ND2	2.36	0.59
1:G:5:ILE:HD13	1:G:12:GLY:HA2	1.85	0.59
2:H:102:VAL:HG22	2:H:124:GLY:HA2	1.84	0.59
2:H:182:THR:OG1	2:H:183:GLY:N	2.36	0.59
1:E:183:ARG:HG2	1:E:187:ALA:H	1.68	0.59
1:E:198:ALA:O	1:E:202:ASN:ND2	2.35	0.59
2:F:41:ALA:HA	2:F:44:LEU:HD12	1.84	0.59
1:I:29:VAL:HB	1:I:72:LYS:HB2	1.83	0.59
1:I:177:SER:HA	1:I:234:THR:HG23	1.83	0.59
2:J:168:PHE:O	2:J:249:SER:OG	2.21	0.59
2:J:215:ALA:O	2:J:219:VAL:N	2.32	0.59
1:K:36:GLY:O	1:K:39:SER:OG	2.15	0.59
1:K:303:ASP:OD1	1:K:304:MET:N	2.32	0.59
1:K:362:GLU:N	1:E:195:ARG:HH12	2.01	0.59
1:A:0:LYS:HB2	1:A:24:PRO:HA	1.84	0.59
2:B:66:ILE:O	2:B:73:ILE:N	2.35	0.59
1:C:151:THR:HG22	1:C:214:VAL:HG23	1.84	0.59
1:C:192:ASP:HB3	1:C:195:ARG:HB2	1.83	0.59
2:R:152:CYS:HA	2:R:155:ASN:HB3	1.83	0.59
2:P:59:LYS:HA	2:P:59:LYS:HZ3	1.68	0.59
1:G:190:HIS:CE1	1:G:192:ASP:HB3	2.37	0.59
1:G:257:ASN:O	1:G:261:LYS:N	2.32	0.59
2:H:163:VAL:O	2:H:167:LYS:N	2.33	0.59
1:E:116:VAL:HB	1:E:143:ILE:HA	1.85	0.59
2:F:118:VAL:HB	2:F:146:ILE:HA	1.85	0.59
2:F:196:ARG:NH1	2:F:207:PRO:HD2	2.17	0.59
2:F:323:VAL:O	2:F:327:ALA:N	2.30	0.59
1:I:8:PHE:HB3	1:I:13:ARG:HH11	1.67	0.59
2:J:251:LYS:NZ	2:J:303:GLY:O	2.31	0.59
1:K:92:VAL:HG21	1:K:108:HIS:HB3	1.84	0.59
1:A:167:ILE:HA	1:A:246:ILE:HA	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:131:TYR:HA	2:B:136:ASN:HB2	1.84	0.59
2:B:192:HIS:CE1	2:B:197:ARG:HB3	2.38	0.59
2:B:294:ILE:HA	2:B:311:ALA:HA	1.85	0.59
2:D:67:SER:HA	2:D:72:VAL:HA	1.85	0.59
1:Q:277:PRO:HB2	1:O:194:ARG:HE	1.68	0.59
2:P:15:PHE:O	2:P:19:TRP:N	2.28	0.59
1:G:3:VAL:HG13	1:G:91:ILE:HG13	1.85	0.59
1:G:30:VAL:O	1:G:74:VAL:N	2.36	0.59
2:H:107:ALA:O	2:H:111:LEU:N	2.23	0.59
2:H:108:GLY:O	2:H:112:GLN:N	2.32	0.59
1:E:165:LEU:HD12	1:E:248:LYS:HD2	1.85	0.59
1:E:213:ALA:O	1:E:216:LEU:HB2	2.03	0.59
2:F:7:GLY:H	2:F:33:ASN:HD22	1.50	0.59
2:F:17:ARG:NH2	2:F:55:ASP:OD1	2.35	0.59
1:I:59:ILE:HA	1:I:64:PHE:HB2	1.85	0.58
2:J:189:ASP:OD1	2:J:200:ALA:N	2.26	0.58
2:J:305:ASP:OD1	2:L:172:LYS:NZ	2.35	0.58
1:K:274:CYS:HB3	1:K:293:ASP:HA	1.84	0.58
2:L:262:ARG:O	2:L:266:ASP:N	2.31	0.58
1:C:8:PHE:CZ	1:C:13:ARG:HD2	2.38	0.58
1:C:16:LEU:HD12	1:C:18(A):TRP:HB3	1.84	0.58
1:C:127:THR:HB	1:C:217:VAL:HG13	1.83	0.58
1:C:253:GLU:HA	1:C:256:ASN:HD21	1.66	0.58
2:D:294:ILE:HG23	2:D:311:ALA:HB2	1.85	0.58
1:Q:312:ASP:OD2	1:Q:314:GLU:N	2.34	0.58
1:G:90:ASP:OD1	1:G:90:ASP:N	2.34	0.58
1:G:149:CYS:N	3:G:401:NAD:O7N	2.35	0.58
1:G:177:SER:OG	1:G:237:VAL:O	2.21	0.58
1:G:183:ARG:N	1:G:195:ARG:O	2.34	0.58
2:H:145:THR:HG23	2:H:146:ILE:HG13	1.83	0.58
1:E:203:ILE:HG12	1:E:232:VAL:HG12	1.85	0.58
1:I:206:THR:O	1:I:229:ALA:N	2.29	0.58
1:I:357:GLU:O	1:Q:190:HIS:HA	2.03	0.58
2:L:196:ARG:CZ	2:L:207:PRO:HD2	2.33	0.58
1:C:255:VAL:O	1:C:259:PHE:N	2.32	0.58
2:D:105:ASP:O	2:D:109:LYS:N	2.26	0.58
2:D:185:GLN:HB3	2:D:197:ARG:HA	1.84	0.58
1:Q:60(A):ASP:OD1	1:Q:61:ASN:ND2	2.36	0.58
1:Q:171:THR:OG1	1:O:306:LYS:NZ	2.25	0.58
2:R:206:VAL:HB	2:R:233:ARG:HB2	1.84	0.58
2:R:272:ILE:O	2:R:291:SER:N	2.23	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:291:SER:OG	2:R:322:ARG:NH1	2.30	0.58
1:O:157:PHE:HA	1:O:160:VAL:HB	1.83	0.58
1:G:299:VAL:HA	1:G:305:VAL:HA	1.85	0.58
2:H:6:ASN:O	2:H:97:GLY:N	2.31	0.58
2:H:91:ILE:O	2:H:116:LYS:N	2.36	0.58
1:E:176:HIS:O	1:E:231:ARG:HA	2.03	0.58
1:E:275:ASP:OD1	1:E:275:ASP:N	2.35	0.58
2:F:261:PHE:O	2:F:264:SER:OG	2.17	0.58
2:L:160:PHE:HA	2:L:163:VAL:HB	1.84	0.58
2:L:185:GLN:HB3	2:L:197:ARG:HA	1.83	0.58
1:A:38:LYS:HA	1:A:41:THR:HB	1.86	0.58
1:A:179:THR:O	1:A:182:GLN:NE2	2.22	0.58
2:B:244:LEU:HG	2:B:246:VAL:HG22	1.85	0.58
1:C:20:ARG:HA	1:C:21:LYS:HZ2	1.67	0.58
1:C:252:ALA:O	1:C:255:VAL:N	2.35	0.58
2:D:317:TRP:O	2:D:321:GLN:HG2	2.04	0.58
2:R:104:ARG:HG3	2:R:146:ILE:HG21	1.84	0.58
1:O:151:THR:HA	1:O:154:LEU:HD23	1.84	0.58
2:H:206:VAL:HB	2:H:233:ARG:HB2	1.86	0.58
2:H:253:PHE:CZ	2:H:255:GLU:HB3	2.37	0.58
1:E:82:LEU:HB2	1:E:84:TRP:CH2	2.38	0.58
2:F:34:ASP:HA	3:F:401:NAD:H2A	1.84	0.58
2:F:262:ARG:N	2:F:262:ARG:HH11	2.01	0.58
1:I:104:GLY:O	1:I:108:HIS:NE2	2.37	0.58
1:I:194:ARG:O	1:I:197:ARG:N	2.32	0.58
1:I:209:GLY:O	1:I:213:ALA:N	2.21	0.58
1:I:270:VAL:O	1:I:290:SER:N	2.31	0.58
2:J:140:TYR:CZ	2:J:142:HIS:HA	2.38	0.58
1:K:181:ASP:OD2	1:K:195:ARG:NH1	2.35	0.58
1:K:254:ASP:HA	1:K:257:ASN:HD22	1.68	0.58
1:K:327:LEU:HA	1:K:330:ASN:HB2	1.86	0.58
2:L:133:VAL:HA	2:L:137:GLU:HB3	1.85	0.58
2:L:162:LYS:HB2	2:L:220:LEU:HD22	1.86	0.58
2:L:300:MET:O	2:L:308:LYS:N	2.36	0.58
1:A:84:TRP:HB3	1:A:89:ILE:HB	1.85	0.58
1:A:287:ASP:HB3	1:A:319:GLN:HG3	1.84	0.58
2:B:38:VAL:N	1:O:344:PRO:O	2.33	0.58
2:B:293:THR:HB	2:B:312:TRP:HB2	1.85	0.58
1:C:147:ALA:O	1:C:152:ASN:ND2	2.33	0.58
2:D:162:LYS:HB2	2:D:220:LEU:HD22	1.85	0.58
2:P:136:ASN:OD1	2:P:136:ASN:N	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:18:CYS:HB3	1:G:20:ARG:HE	1.68	0.58
2:F:38:VAL:HB	2:F:66:ILE:CD1	2.32	0.58
2:F:140:TYR:CZ	2:F:142:HIS:HA	2.38	0.58
1:I:105:ALA:HB1	1:I:116:VAL:HG21	1.85	0.58
2:J:180:SER:OG	2:J:236:THR:O	2.08	0.58
1:K:46:TYR:CD1	2:L:280:LEU:HD11	2.38	0.58
1:K:329:ALA:O	1:K:333:PRO:HD3	2.04	0.58
1:K:346:GLU:O	1:K:350:LYS:N	2.26	0.58
2:L:332:ASN:OD1	2:L:332:ASN:N	2.36	0.58
1:C:292:ILE:HG22	1:C:309:ALA:HB2	1.85	0.58
2:D:11:ILE:HG12	3:D:401:NAD:O5D	2.03	0.58
2:D:152:CYS:O	2:D:156:CYS:N	2.35	0.58
2:P:181:TYR:HD2	2:P:235:PRO:HA	1.68	0.58
1:G:255:VAL:O	1:G:259:PHE:N	2.36	0.58
2:H:32:ILE:O	2:H:75:VAL:HB	2.02	0.58
1:E:294:SER:HA	1:E:297:THR:HB	1.86	0.58
1:I:148:SER:OG	1:I:151:THR:OG1	2.13	0.58
1:I:257:ASN:N	1:I:260:ARG:HH21	2.00	0.58
2:J:175:MET:H	2:J:229:GLY:HA3	1.69	0.58
1:K:50:LEU:HD13	1:K:285:CYS:HA	1.86	0.58
2:B:85:PRO:HA	2:B:113:ALA:HB1	1.84	0.58
2:B:152:CYS:HB3	2:B:319:TYR:CD2	2.38	0.58
2:B:305:ASP:OD1	2:D:172:LYS:NZ	2.36	0.58
1:C:141:ALA:HB1	1:C:144:ILE:HA	1.84	0.58
1:Q:281:VAL:HA	1:Q:284:ARG:HG2	1.85	0.58
2:R:210:THR:HG22	2:R:231:ALA:HB2	1.85	0.58
1:O:156:PRO:HB2	1:O:267:LEU:HD22	1.86	0.58
2:P:11:ILE:N	3:P:401:NAD:O1N	2.35	0.58
2:P:157:LEU:HB2	2:P:161:VAL:HG11	1.86	0.58
2:P:180:SER:OG	2:P:181:TYR:N	2.36	0.58
2:P:196:ARG:NH1	2:P:207:PRO:HD2	2.18	0.58
2:P:289:ASP:OD1	2:P:289:ASP:N	2.34	0.58
2:H:142:HIS:ND1	2:H:330:VAL:O	2.36	0.58
2:H:152:CYS:O	2:H:156:CYS:N	2.36	0.58
2:H:280:LEU:O	2:F:196:ARG:NH2	2.37	0.58
3:F:401:NAD:O3B	3:F:401:NAD:O1A	2.21	0.58
1:I:177:SER:OG	1:I:237:VAL:N	2.31	0.58
1:I:198:ALA:O	1:I:202:ASN:ND2	2.37	0.58
2:J:215:ALA:HA	2:J:218:LEU:HB2	1.86	0.58
1:K:3:VAL:HA	1:K:89:ILE:HG23	1.85	0.58
1:K:138:GLY:H	1:K:140:VAL:HB	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:165:LEU:HD23	1:K:248:LYS:HD2	1.85	0.58
2:L:118:VAL:N	2:L:145:THR:O	2.34	0.58
2:L:157:LEU:HA	2:L:160:PHE:CE1	2.38	0.58
2:L:215:ALA:HA	2:L:218:LEU:HD13	1.86	0.58
2:L:289:ASP:N	2:L:289:ASP:OD1	2.34	0.58
2:L:321:GLN:O	2:L:325:ASP:N	2.27	0.58
2:B:30:VAL:HA	2:B:73:ILE:HG12	1.85	0.58
1:C:13:ARG:NH2	1:C:43:LEU:O	2.29	0.58
2:D:150:ALA:O	2:D:319:TYR:OH	2.10	0.58
2:D:157:LEU:HA	2:D:160:PHE:CE1	2.39	0.58
2:D:290:VAL:HA	2:D:322:ARG:HH12	1.69	0.58
2:D:321:GLN:O	2:D:325:ASP:N	2.27	0.58
2:D:332:ASN:OD1	2:D:332:ASN:N	2.36	0.58
2:P:149:ASN:HD21	2:P:155:ASN:HB2	1.69	0.58
1:G:90:ASP:HA	1:G:114:LYS:HG2	1.86	0.58
2:H:208:THR:OG1	2:H:209:SER:N	2.37	0.58
1:E:20:ARG:HD2	1:E:21:LYS:HZ3	1.69	0.58
2:F:51:LEU:HD22	2:F:287:CYS:HB2	1.84	0.58
2:J:289:ASP:HB3	2:J:321:GLN:HG3	1.85	0.58
2:J:294:ILE:HA	2:J:311:ALA:HA	1.86	0.58
1:K:255:VAL:O	1:K:259:PHE:N	2.34	0.58
2:L:22:ARG:NH2	2:L:321:GLN:O	2.37	0.58
1:A:206:THR:N	1:A:229:ALA:O	2.37	0.58
1:A:297:THR:HG23	1:A:307:VAL:HA	1.83	0.58
2:B:175:MET:H	2:B:229:GLY:HA3	1.68	0.58
1:C:130:VAL:HA	1:C:134:GLU:HB3	1.86	0.58
1:C:137:TYR:O	1:C:331:LYS:NZ	2.19	0.58
1:C:194:ARG:HB3	1:C:204:VAL:HG22	1.85	0.58
2:R:165:ASP:HA	2:R:169:GLY:HA2	1.86	0.58
2:R:199:ARG:NH1	1:O:46:TYR:O	2.35	0.58
2:P:248:VAL:HG22	2:P:305:ASP:HA	1.86	0.58
2:P:299:THR:HG22	2:P:310:ILE:H	1.68	0.58
1:G:346:GLU:O	1:G:350:LYS:N	2.37	0.58
2:H:192:HIS:HB3	2:H:198:ALA:HA	1.85	0.58
1:E:47:ASP:OD1	1:E:50:LEU:N	2.37	0.58
1:I:5:ILE:HG13	1:I:30:VAL:HG22	1.86	0.58
1:I:32:ASP:N	1:I:74:VAL:O	2.36	0.58
2:J:11:ILE:HG12	3:J:401:NAD:PN	2.43	0.58
2:J:279:PRO:HB2	2:L:196:ARG:HG3	1.86	0.58
1:K:280:SER:O	1:K:284:ARG:N	2.37	0.58
1:A:291:THR:HB	1:A:310:TRP:C	2.24	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:47:ASP:OD1	1:C:50:LEU:N	2.36	0.58
1:C:62:GLU:OE2	1:C:63:THR:OG1	2.21	0.58
2:D:9:GLY:O	2:D:13:ARG:N	2.23	0.58
2:H:136:ASN:HD21	2:H:219:VAL:HG12	1.68	0.58
1:E:270:VAL:HG13	1:E:289:SER:HB2	1.86	0.58
1:I:183:ARG:N	1:I:195:ARG:O	2.37	0.58
1:I:218:LEU:HD23	1:I:221:LEU:HD23	1.84	0.58
2:J:1:LEU:HD13	2:J:331:ALA:HA	1.85	0.58
1:K:118:ILE:O	1:K:146:ASN:ND2	2.36	0.58
2:L:257:VAL:HA	2:L:260:ALA:HB3	1.86	0.58
1:A:272:ASP:N	1:A:290:SER:OG	2.36	0.58
1:A:281:VAL:HB	1:C:202:ASN:HD21	1.69	0.58
1:C:25:LEU:HD11	1:C:329:ALA:HB2	1.85	0.58
1:C:60:ILE:HG22	1:C:60(A):ASP:H	1.68	0.58
1:C:84:TRP:HA	1:C:87:LEU:HD12	1.84	0.58
1:C:340:ALA:C	1:C:342:GLY:H	2.06	0.58
1:Q:40:ALA:HA	1:Q:43:LEU:HD12	1.86	0.58
1:Q:67:ASP:N	1:Q:67:ASP:OD1	2.37	0.58
1:Q:151:THR:HA	1:Q:154:LEU:HB3	1.86	0.58
1:O:115:LYS:HG3	1:O:332:TRP:CE3	2.39	0.58
2:P:39:LYS:O	2:P:42:SER:OG	2.10	0.58
2:P:46:LYS:HB2	2:P:58:VAL:HG21	1.84	0.58
2:P:172:LYS:NZ	2:P:247:GLN:OE1	2.32	0.58
1:G:8:PHE:CE1	1:G:13:ARG:HG2	2.39	0.58
1:G:109:ILE:HA	1:G:113:ALA:HB3	1.85	0.58
2:H:22:ARG:NH2	2:H:321:GLN:O	2.37	0.58
2:F:5:ILE:HG23	2:F:95:ILE:HB	1.86	0.58
2:F:30:VAL:O	2:F:74:LYS:N	2.23	0.58
2:F:265:ALA:HA	2:F:269:LEU:HB2	1.86	0.58
1:I:38:LYS:HA	1:I:41:THR:HB	1.86	0.57
2:J:274:SER:O	2:J:294:ILE:HG12	2.04	0.57
1:K:47:ASP:CG	1:K:49:ILE:H	2.07	0.57
2:B:173:GLY:O	2:B:228:ASN:N	2.31	0.57
2:D:32:ILE:O	2:D:76:VAL:N	2.37	0.57
1:Q:162:ASP:HA	1:Q:166:GLY:H	1.68	0.57
1:O:181:ASP:OD1	1:O:231:ARG:NH2	2.36	0.57
1:G:84:TRP:O	1:G:88:GLY:N	2.36	0.57
1:I:60:ILE:HD11	1:I:65:SER:HB2	1.86	0.57
1:I:175:THR:OG1	1:I:239:VAL:N	2.22	0.57
2:J:0:LYS:NZ	2:J:331:ALA:O	2.29	0.57
2:J:301:VAL:HG13	2:J:307:VAL:HG22	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:167:ILE:HG13	1:K:246:ILE:HD12	1.86	0.57
1:K:239:VAL:HA	1:K:310:TRP:HA	1.85	0.57
1:K:326:ASP:O	1:K:330:ASN:N	2.38	0.57
2:L:208:THR:HG21	2:L:233:ARG:HG3	1.85	0.57
1:A:10:ARG:HH12	1:A:48:SER:HB2	1.69	0.57
1:A:327:LEU:O	1:A:331:LYS:N	2.35	0.57
2:B:0:LYS:NZ	2:B:331:ALA:O	2.29	0.57
2:B:13:ARG:NH1	3:B:401:NAD:O2A	2.37	0.57
2:B:46:LYS:O	2:B:54:PHE:N	2.37	0.57
2:B:47:TYR:HB2	1:C:197:ARG:HH12	1.68	0.57
2:B:120:ILE:H	2:B:148:SER:HA	1.68	0.57
2:B:142:HIS:CD2	2:B:335:GLN:H	2.22	0.57
2:B:202:CYS:SG	1:C:178:TYR:OH	2.62	0.57
2:B:204:ASN:ND2	2:D:283:ILE:HG22	2.19	0.57
1:Q:256:ASN:HA	1:Q:259:PHE:CD2	2.38	0.57
2:R:208:THR:OG1	2:R:209:SER:N	2.37	0.57
2:R:252:THR:OG1	2:R:253:PHE:N	2.37	0.57
2:R:298:LEU:HD13	2:P:230:ILE:HD13	1.85	0.57
1:O:85:ALA:N	1:O:112:GLY:HA3	2.18	0.57
1:G:179:THR:OG1	1:G:231:ARG:NH1	2.38	0.57
1:E:128:TYR:HA	1:E:133:ASN:OD1	2.04	0.57
1:I:79:PRO:O	1:I:82:LEU:N	2.38	0.57
1:I:132:VAL:HG11	1:I:155:ALA:HB1	1.86	0.57
1:I:148:SER:O	1:I:152:ASN:N	2.26	0.57
2:J:92:ASP:OD1	2:J:116:LYS:NZ	2.27	0.57
2:J:131:TYR:N	2:J:148:SER:O	2.34	0.57
1:K:58:LYS:HA	1:K:58:LYS:HZ2	1.69	0.57
1:A:179:THR:OG1	1:A:231:ARG:NH2	2.38	0.57
1:C:129:VAL:N	1:C:133:ASN:OD1	2.32	0.57
2:D:42:SER:HB3	2:D:66:ILE:HD12	1.85	0.57
1:Q:109:ILE:HA	1:Q:113:ALA:HB3	1.85	0.57
2:R:209:SER:OG	2:R:214:LYS:NZ	2.29	0.57
1:O:259:PHE:O	1:O:263:ALA:N	2.25	0.57
2:P:186:ARG:HH22	2:P:193:ARG:HH22	1.52	0.57
2:P:224:LYS:O	2:P:226:LYS:NZ	2.37	0.57
2:H:67:SER:HA	2:H:72:VAL:HA	1.86	0.57
2:H:264:SER:O	2:H:268:GLU:N	2.35	0.57
2:F:82:VAL:HG22	2:F:109:LYS:HB3	1.85	0.57
2:F:317:TRP:O	2:F:320:SER:OG	2.22	0.57
1:I:10:ARG:HB3	1:I:314:GLU:OE2	2.05	0.57
1:K:176:HIS:HB3	1:K:231:ARG:HD2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:29:VAL:O	2:L:73:ILE:HG21	2.04	0.57
1:A:36:GLY:O	1:A:39:SER:OG	2.22	0.57
1:C:29:VAL:HG22	1:C:74:VAL:HG22	1.86	0.57
1:Q:39:SER:O	1:Q:43:LEU:N	2.21	0.57
1:O:2:LYS:O	1:O:90:ASP:N	2.37	0.57
1:O:29:VAL:HG11	1:O:87:LEU:HD13	1.86	0.57
1:O:254:ASP:HA	1:O:257:ASN:HD22	1.69	0.57
2:P:168:PHE:HD2	2:P:250:LYS:HG2	1.69	0.57
1:G:306:LYS:NZ	1:E:173:THR:OG1	2.30	0.57
2:H:44:LEU:HD23	1:E:197:ARG:NH1	2.19	0.57
2:H:272:ILE:O	2:H:291:SER:N	2.23	0.57
2:F:14:ASN:OD1	2:F:320:SER:OG	2.07	0.57
1:I:31:ASN:ND2	1:I:76:ASN:H	2.03	0.57
1:K:256:ASN:O	1:K:260:ARG:N	2.18	0.57
2:L:32:ILE:O	2:L:75:VAL:C	2.43	0.57
2:B:215:ALA:HA	2:B:218:LEU:HB2	1.85	0.57
2:B:315:ASN:N	2:B:316:GLU:OE2	2.33	0.57
1:C:60:ILE:HD11	1:C:65:SER:HB2	1.86	0.57
2:D:151:SER:O	2:D:155:ASN:N	2.23	0.57
2:D:257:VAL:HA	2:D:260:ALA:HB3	1.86	0.57
1:Q:165:LEU:O	1:Q:248:LYS:NZ	2.30	0.57
1:Q:178:TYR:N	1:Q:234:THR:O	2.38	0.57
1:Q:270:VAL:HA	1:Q:289:SER:H	1.69	0.57
2:R:6:ASN:N	2:R:95:ILE:O	2.37	0.57
2:P:46:LYS:HZ1	2:P:53:THR:HG1	1.46	0.57
1:G:182:GLN:HG3	1:G:195:ARG:NH1	2.19	0.57
2:H:98:THR:HG21	2:H:101:PHE:HE2	1.70	0.57
2:F:59:LYS:HB2	2:F:59:LYS:NZ	2.20	0.57
2:J:131:TYR:HA	2:J:136:ASN:HB2	1.85	0.57
2:L:102:VAL:HG22	2:L:125:LYS:H	1.69	0.57
2:L:299:THR:HA	2:L:310:ILE:HD11	1.85	0.57
1:A:10:ARG:N	3:A:401:NAD:O3	2.37	0.57
1:A:101:ASP:OD1	1:A:104:GLY:N	2.37	0.57
2:B:1:LEU:HD13	2:B:331:ALA:HA	1.85	0.57
2:B:16:LEU:O	2:B:20:HIS:N	2.23	0.57
2:B:140:TYR:CZ	2:B:142:HIS:HA	2.39	0.57
2:B:252:THR:OG1	2:B:253:PHE:N	2.38	0.57
1:C:167:ILE:HG12	1:C:244:VAL:HG21	1.85	0.57
1:C:270:VAL:HG13	1:C:289:SER:HB2	1.85	0.57
1:Q:56:ASP:HB3	1:Q:67:ASP:HA	1.87	0.57
2:R:224:LYS:H	2:R:226:LYS:HZ3	1.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:85:ALA:H	1:O:112:GLY:HA3	1.69	0.57
1:O:137:TYR:HD2	1:O:331:LYS:HD2	1.69	0.57
1:O:205:PRO:HA	1:O:230:LEU:HD23	1.86	0.57
2:P:323:VAL:O	2:P:327:ALA:N	2.28	0.57
1:G:4:ALA:HA	1:G:27:VAL:HG13	1.85	0.57
1:G:287:ASP:OD1	1:G:315:TRP:NE1	2.36	0.57
2:H:252:THR:OG1	2:H:253:PHE:N	2.37	0.57
2:J:12:GLY:HA2	2:J:15:PHE:HB2	1.86	0.57
2:J:60:THR:O	2:J:60:THR:HG23	2.05	0.57
2:J:177:THR:OG1	2:J:178:THR:N	2.36	0.57
2:J:300:MET:O	2:J:308:LYS:N	2.29	0.57
1:K:129:VAL:H	1:K:133:ASN:CG	2.07	0.57
1:K:190:HIS:HE2	1:K:192:ASP:HB3	1.70	0.57
2:B:15:PHE:CZ	2:B:324:VAL:HA	2.40	0.57
2:B:154:THR:HG21	2:B:215:ALA:HB3	1.85	0.57
1:C:0:LYS:H2	1:C:25:LEU:C	2.07	0.57
1:C:279:VAL:HA	1:C:310:TRP:CH2	2.40	0.57
1:C:298:MET:N	1:C:306:LYS:O	2.30	0.57
2:D:140:TYR:OH	2:D:332:ASN:O	2.08	0.57
2:D:210:THR:HB	2:D:231:ALA:HB2	1.85	0.57
1:Q:85:ALA:N	1:Q:111:ALA:O	2.37	0.57
2:P:182:THR:OG1	2:P:184:ASP:OD2	2.23	0.57
1:G:92:VAL:O	1:G:117:ILE:N	2.35	0.57
1:G:157:PHE:HA	1:G:271:LEU:HD21	1.86	0.57
1:G:270:VAL:HA	1:G:289:SER:H	1.68	0.57
1:G:304:MET:HB2	1:E:169:LYS:HE3	1.87	0.57
2:H:172:LYS:HD3	2:F:303:GLY:HA3	1.86	0.57
2:H:281:VAL:HB	2:F:204:ASN:HD22	1.68	0.57
1:E:94:GLU:O	1:E:119:THR:OG1	2.16	0.57
2:F:11:ILE:HG12	3:F:401:NAD:PN	2.44	0.57
2:F:168:PHE:HD2	2:F:250:LYS:HG2	1.69	0.57
2:F:180:SER:OG	2:F:181:TYR:N	2.38	0.57
2:F:193:ARG:H	2:F:193:ARG:NE	2.02	0.57
2:J:48:ASP:OD2	2:J:51:LEU:N	2.38	0.57
1:K:83:PRO:O	1:K:86:GLU:N	2.38	0.57
1:K:178:TYR:N	1:K:232:VAL:O	2.38	0.57
2:L:131:TYR:OH	2:L:139:GLY:O	2.18	0.57
2:B:263:GLU:O	2:B:267:ASN:ND2	2.38	0.57
2:B:289:ASP:OD1	2:B:289:ASP:N	2.37	0.57
1:C:176:HIS:H	1:C:232:VAL:HG22	1.69	0.57
2:R:320:SER:HA	2:R:323:VAL:HB	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:109:LYS:HA	2:H:112:GLN:CD	2.25	0.57
2:H:301:VAL:HG22	2:H:307:VAL:HG22	1.87	0.57
2:F:136:ASN:OD1	2:F:136:ASN:N	2.37	0.57
2:J:142:HIS:CD2	2:J:335:GLN:H	2.22	0.57
1:K:127:THR:HB	1:K:217:VAL:HG13	1.86	0.57
1:K:149:CYS:HB3	1:K:317:TYR:HD1	1.70	0.57
1:K:176:HIS:O	1:K:231:ARG:NH1	2.37	0.57
1:K:292:ILE:HG22	1:K:309:ALA:HB2	1.86	0.57
1:K:347:ASP:O	1:K:351:ASP:N	2.36	0.57
2:L:20:HIS:NE2	2:L:69:ASP:CG	2.58	0.57
2:L:220:LEU:HB3	2:L:223:LEU:HD13	1.86	0.57
2:D:57:ASP:N	2:D:69:ASP:OD2	2.37	0.57
2:D:228:ASN:OD1	2:D:229:GLY:N	2.37	0.57
2:P:22:ARG:NH2	2:P:325:ASP:OD1	2.37	0.57
2:P:94:VAL:O	2:P:118:VAL:HA	2.05	0.57
2:P:160:PHE:HB2	2:P:261:PHE:CE2	2.39	0.57
2:P:262:ARG:N	2:P:262:ARG:HH11	2.03	0.57
2:H:122:ALA:O	2:H:148:SER:OG	2.22	0.57
2:H:165:ASP:HA	2:H:169:GLY:HA2	1.87	0.57
2:F:42:SER:HG	2:F:43:HIS:H	1.52	0.57
1:I:154:LEU:O	1:I:158:VAL:HB	2.04	0.57
2:J:11:ILE:O	2:J:15:PHE:N	2.20	0.57
2:J:120:ILE:O	2:J:149:ASN:N	2.36	0.57
2:J:149:ASN:HD21	2:J:155:ASN:HB2	1.69	0.57
2:J:252:THR:H	2:J:304:ASP:HB3	1.70	0.57
1:K:115:LYS:HE3	1:K:139:HIS:HA	1.87	0.57
1:K:177:SER:O	1:K:231:ARG:NH1	2.24	0.57
1:K:236:ASN:HD21	1:K:312:ASP:CG	2.07	0.57
2:L:6:ASN:HB3	2:L:96:GLU:HA	1.86	0.57
2:L:34:ASP:HA	3:L:401:NAD:H2A	1.87	0.57
2:L:140:TYR:HE2	2:L:332:ASN:HB2	1.69	0.57
2:L:152:CYS:O	2:L:156:CYS:N	2.38	0.57
1:A:19:GLY:O	1:A:21:LYS:NZ	2.36	0.57
1:A:131:GLY:N	1:A:134:GLU:OE2	2.38	0.57
2:B:177:THR:OG1	2:B:178:THR:N	2.37	0.57
1:C:244:VAL:O	1:C:304:MET:HA	2.05	0.57
2:D:317:TRP:O	2:D:320:SER:OG	2.22	0.57
1:Q:14:ASN:ND2	1:Q:314:GLU:OE1	2.37	0.57
1:Q:134:GLU:OE1	1:Q:134:GLU:N	2.35	0.57
2:R:154:THR:HA	2:R:157:LEU:HG	1.87	0.57
2:R:178:THR:OG1	2:R:241:VAL:N	2.29	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:196:ARG:NH2	2:P:280:LEU:O	2.38	0.57
1:O:31:ASN:OD1	1:O:76:ASN:N	2.38	0.57
2:P:11:ILE:H	3:P:401:NAD:PN	2.27	0.57
1:G:29:VAL:HG11	1:G:87:LEU:HD13	1.87	0.57
1:G:31:ASN:OD1	1:G:76:ASN:N	2.38	0.57
1:G:151:THR:O	1:G:155:ALA:N	2.23	0.57
1:G:178:TYR:N	1:G:234:THR:O	2.38	0.57
2:H:116:LYS:O	2:H:145:THR:OG1	2.12	0.57
1:E:3:VAL:HG21	1:E:25:LEU:HB3	1.87	0.57
1:I:106:GLY:O	1:I:110:GLN:N	2.32	0.56
1:I:167:ILE:HA	1:I:246:ILE:HA	1.86	0.56
1:I:174:THR:O	1:I:230:LEU:HB2	2.05	0.56
2:J:6:ASN:N	2:J:95:ILE:O	2.37	0.56
2:J:32:ILE:N	2:J:74:LYS:O	2.38	0.56
1:K:60:ILE:HG22	1:K:60(A):ASP:H	1.70	0.56
1:K:179:THR:HG1	1:K:231:ARG:NH2	2.02	0.56
1:K:213:ALA:HA	1:K:216:LEU:HG	1.86	0.56
1:K:252:ALA:O	1:K:255:VAL:N	2.36	0.56
2:L:194:ASP:HB3	2:L:197:ARG:HB2	1.86	0.56
1:A:6:ASN:HB3	1:A:95:GLY:H	1.69	0.56
1:A:31:ASN:ND2	1:A:76:ASN:O	2.38	0.56
1:A:171:THR:O	1:A:242:LEU:HD12	2.04	0.56
1:A:192:ASP:CG	1:A:195:ARG:H	2.08	0.56
1:A:253:GLU:O	1:A:257:ASN:N	2.36	0.56
1:A:327:LEU:HD23	1:A:328:VAL:HG22	1.87	0.56
2:D:122:ALA:O	2:D:148:SER:OG	2.23	0.56
2:D:141:THR:OG1	2:D:144:ASP:OD1	2.21	0.56
2:D:152:CYS:HB3	2:D:319:TYR:CD2	2.40	0.56
2:D:300:MET:O	2:D:308:LYS:N	2.38	0.56
1:Q:238:SER:HB2	1:Q:311:TYR:CE2	2.40	0.56
2:R:109:LYS:HA	2:R:112:GLN:CD	2.26	0.56
2:R:295:ASP:OD1	2:R:299:THR:N	2.38	0.56
1:O:162:ASP:HB2	1:O:221:LEU:HD21	1.86	0.56
2:P:38:VAL:O	2:P:42:SER:N	2.29	0.56
1:G:236:ASN:O	1:G:284:ARG:NH1	2.38	0.56
2:H:3:VAL:HG22	2:H:93:LEU:H	1.70	0.56
2:H:154:THR:HA	2:H:157:LEU:HG	1.87	0.56
3:H:401:NAD:O2B	1:E:188:SER:OG	2.18	0.56
1:E:122:ALA:HA	1:E:125:ILE:HG12	1.86	0.56
2:F:38:VAL:CB	2:F:66:ILE:HD11	2.34	0.56
1:I:169:LYS:N	1:I:245:ASN:OD1	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:221:LEU:HA	1:I:224:LYS:HD3	1.87	0.56
1:K:5:ILE:HB	1:K:30:VAL:HG22	1.86	0.56
2:L:152:CYS:HB3	2:L:319:TYR:CD2	2.40	0.56
2:L:179:HIS:O	2:L:234:VAL:N	2.38	0.56
1:A:148:SER:O	1:A:152:ASN:ND2	2.38	0.56
2:B:264:SER:O	2:B:269:LEU:N	2.36	0.56
2:B:301:VAL:HG13	2:B:307:VAL:HG22	1.86	0.56
1:C:105:ALA:HA	1:C:108:HIS:CG	2.40	0.56
1:C:135:LYS:O	1:C:331:LYS:NZ	2.37	0.56
1:C:165:LEU:HD23	1:C:248:LYS:HD2	1.86	0.56
2:D:15:PHE:HE2	2:D:323:VAL:HB	1.70	0.56
2:D:192:HIS:CE1	2:D:194:ASP:H	2.24	0.56
2:R:314:ASP:CG	2:R:318:GLY:H	2.08	0.56
1:O:190:HIS:CE1	1:O:192:ASP:HB3	2.40	0.56
2:P:179:HIS:HB3	2:P:233:ARG:HA	1.87	0.56
1:G:119:THR:O	1:G:146:ASN:ND2	2.37	0.56
1:G:270:VAL:HG13	1:G:289:SER:HB2	1.85	0.56
2:H:17:ARG:NH1	2:H:51:LEU:HB2	2.20	0.56
2:H:17:ARG:O	2:H:21:GLY:N	2.27	0.56
2:H:79:ARG:HA	3:H:401:NAD:H62A	1.70	0.56
1:I:45:LYS:O	1:I:53:PHE:N	2.27	0.56
1:I:105:ALA:HA	1:I:108:HIS:CE1	2.40	0.56
2:J:48:ASP:OD2	2:J:52:GLY:N	2.38	0.56
2:J:186:ARG:HB3	2:J:188:LEU:O	2.06	0.56
2:J:204:ASN:ND2	2:L:283:ILE:HG22	2.21	0.56
1:K:29:VAL:HG22	1:K:74:VAL:HG22	1.87	0.56
2:L:18:CYS:O	2:L:22:ARG:N	2.23	0.56
2:L:28:ASP:OD2	2:L:71:LYS:HE3	1.98	0.56
2:L:319:TYR:O	2:L:323:VAL:HG23	2.04	0.56
1:A:45:LYS:O	1:A:52:THR:OG1	2.13	0.56
1:A:297:THR:OG1	1:A:308:VAL:O	2.21	0.56
2:B:8:PHE:O	3:B:401:NAD:O3B	2.24	0.56
2:B:175:MET:HB3	2:B:244:LEU:HB2	1.87	0.56
2:B:187:LEU:HD22	1:C:184:LEU:H	1.70	0.56
2:B:240:SER:OG	2:B:241:VAL:N	2.38	0.56
1:C:20:ARG:HA	1:C:20:ARG:HH11	1.71	0.56
1:C:246:ILE:HG13	1:C:248:LYS:H	1.69	0.56
1:Q:60(A):ASP:O	1:Q:63:THR:N	2.37	0.56
1:Q:84:TRP:HA	1:Q:87:LEU:HB2	1.86	0.56
2:R:91:ILE:N	2:R:114:GLY:O	2.38	0.56
2:R:274:SER:C	2:R:293:THR:HA	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:174:THR:OG1	1:O:238:SER:HB3	2.05	0.56
1:O:273:VAL:HA	1:O:292:ILE:HB	1.87	0.56
1:O:275:ASP:N	1:O:275:ASP:OD1	2.34	0.56
2:P:253:PHE:CZ	2:P:255:GLU:HB3	2.40	0.56
1:G:108:HIS:HA	1:G:111:ALA:HB3	1.87	0.56
1:G:218:LEU:HD12	1:G:220:GLN:HE22	1.69	0.56
1:G:318:SER:OG	1:G:319:GLN:OE1	2.23	0.56
2:H:188:LEU:HD22	1:E:180:GLY:H	1.69	0.56
1:E:94:GLU:HB3	1:E:119:THR:H	1.69	0.56
1:E:292:ILE:HG23	1:E:309:ALA:HB2	1.87	0.56
2:F:1:LEU:HD22	2:F:331:ALA:HA	1.85	0.56
2:F:8:PHE:O	2:F:13:ARG:NE	2.38	0.56
2:F:196:ARG:HB3	2:F:196:ARG:HH11	1.71	0.56
1:I:300:MET:HG2	1:K:169:LYS:HD3	1.87	0.56
2:J:65:ALA:HB1	2:J:72:VAL:HG13	1.86	0.56
2:J:149:ASN:OD1	2:J:150:ALA:N	2.39	0.56
1:K:11:ILE:N	1:K:314:GLU:OE2	2.39	0.56
1:K:105:ALA:HB1	1:K:116:VAL:HG11	1.87	0.56
2:L:253:PHE:CE2	2:L:255:GLU:HB3	2.40	0.56
1:A:236:ASN:H	1:A:284:ARG:NH2	2.04	0.56
2:B:65:ALA:HB1	2:B:72:VAL:HG13	1.87	0.56
2:B:106:GLY:O	2:B:110:HIS:ND1	2.37	0.56
2:B:142:HIS:NE2	2:B:334:TRP:HA	2.18	0.56
1:C:83:PRO:HB2	1:C:86:GLU:HB3	1.86	0.56
1:C:253:GLU:HA	1:C:256:ASN:ND2	2.20	0.56
2:D:3:VAL:HA	2:D:91:ILE:HG23	1.88	0.56
2:D:18:CYS:O	2:D:22:ARG:N	2.29	0.56
2:D:215:ALA:HA	2:D:218:LEU:HD13	1.88	0.56
1:Q:327:LEU:HA	1:Q:330:ASN:HD21	1.70	0.56
2:R:8:PHE:HZ	2:R:45:LEU:HB2	1.69	0.56
1:O:116:VAL:O	1:O:144:ILE:N	2.22	0.56
2:P:154:THR:HG23	2:P:212:ALA:HA	1.86	0.56
1:G:178:TYR:N	1:G:232:VAL:O	2.39	0.56
2:H:161:VAL:O	2:H:165:ASP:N	2.25	0.56
2:F:215:ALA:O	2:F:219:VAL:N	2.34	0.56
1:I:93:ILE:HA	1:I:117:ILE:HB	1.88	0.56
2:J:240:SER:OG	2:J:241:VAL:N	2.38	0.56
1:K:102:GLY:O	1:K:106:GLY:N	2.38	0.56
2:L:86:TRP:NE1	2:L:110:HIS:O	2.38	0.56
2:L:185:GLN:NE2	2:L:185:GLN:H	2.03	0.56
1:A:192:ASP:O	1:A:196:ALA:N	2.33	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:17:ARG:NH2	1:C:51:GLY:O	2.32	0.56
2:D:31:VAL:HG13	2:D:74:LYS:HB3	1.88	0.56
1:Q:1:LEU:HD23	1:Q:91:ILE:HD13	1.86	0.56
1:Q:1:LEU:HD22	1:Q:329:ALA:HA	1.87	0.56
2:R:67:SER:CB	2:R:72:VAL:CG2	2.26	0.56
2:R:137:GLU:HB2	2:R:326:LEU:HD13	1.88	0.56
2:R:172:LYS:HD3	2:P:303:GLY:HA3	1.87	0.56
1:O:237:VAL:HG11	1:O:280:SER:HB2	1.86	0.56
2:P:184:ASP:OD1	2:P:233:ARG:NH1	2.39	0.56
2:P:208:THR:OG1	2:P:209:SER:N	2.39	0.56
1:G:173:THR:OG1	1:G:228:ILE:HG23	2.06	0.56
2:H:182:THR:HG23	2:H:184:ASP:HB3	1.86	0.56
1:E:178:TYR:HA	1:E:182:GLN:HE22	1.71	0.56
1:E:274:CYS:N	1:E:292:ILE:O	2.38	0.56
2:F:167:LYS:HG2	2:F:260:ALA:HB1	1.86	0.56
1:I:129:VAL:HB	1:I:132:VAL:HB	1.88	0.56
2:J:13:ARG:NH1	3:J:401:NAD:O2A	2.39	0.56
2:J:66:ILE:O	2:J:73:ILE:N	2.38	0.56
2:J:104:ARG:HD3	2:J:146:ILE:HG21	1.87	0.56
1:K:25:LEU:HD11	1:K:329:ALA:HB2	1.87	0.56
1:K:171:THR:O	1:K:242:LEU:HD12	2.04	0.56
2:L:0:LYS:N	2:L:25:SER:O	2.33	0.56
1:A:59:ILE:HA	1:A:64:PHE:HB2	1.87	0.56
1:A:272:ASP:HB3	1:A:290:SER:O	2.06	0.56
2:B:172:LYS:HG2	2:B:226:LYS:HB2	1.86	0.56
2:B:174:THR:O	2:B:245:VAL:N	2.35	0.56
2:B:264:SER:O	2:B:268:GLU:N	2.39	0.56
1:C:176:HIS:O	1:C:231:ARG:NH1	2.39	0.56
2:D:140:TYR:O	2:D:333:LYS:NZ	2.33	0.56
1:Q:272:ASP:O	1:Q:292:ILE:N	2.35	0.56
1:O:270:VAL:HG13	1:O:289:SER:HB2	1.88	0.56
1:G:256:ASN:HA	1:G:259:PHE:CG	2.41	0.56
2:H:272:ILE:O	2:H:291:SER:OG	2.15	0.56
2:H:295:ASP:OD1	2:H:299:THR:N	2.38	0.56
1:E:82:LEU:HB2	1:E:84:TRP:CZ3	2.40	0.56
1:E:84:TRP:HA	1:E:87:LEU:HB2	1.88	0.56
2:F:15:PHE:O	2:F:19:TRP:N	2.31	0.56
2:F:253:PHE:CZ	2:F:255:GLU:HB3	2.40	0.56
2:F:299:THR:HG22	2:F:310:ILE:N	2.21	0.56
1:I:353:PRO:HA	1:I:358:CYS:HB3	1.87	0.56
2:J:106:GLY:O	2:J:110:HIS:ND1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:195:LEU:HD12	2:J:195:LEU:H	1.71	0.56
1:A:76:ASN:HD21	1:A:78:ASP:HB3	1.69	0.56
1:A:105:ALA:HA	1:A:108:HIS:CE1	2.41	0.56
2:B:170:ILE:HG21	2:B:246:VAL:HG12	1.88	0.56
2:B:183:GLY:HA2	1:C:184:LEU:HD23	1.87	0.56
2:D:86:TRP:NE1	2:D:110:HIS:O	2.38	0.56
2:D:165:ASP:OD1	2:D:170:ILE:N	2.39	0.56
1:Q:60:ILE:HG22	1:Q:60(A):ASP:H	1.70	0.56
1:Q:212:LYS:O	1:Q:215:SER:OG	2.17	0.56
1:Q:274:CYS:SG	1:Q:275:ASP:N	2.79	0.56
2:R:142:HIS:CE1	2:R:334:TRP:HA	2.40	0.56
1:G:157:PHE:CE1	1:G:292:ILE:HG12	2.41	0.56
2:H:274:SER:C	2:H:293:THR:HA	2.25	0.56
1:E:157:PHE:HD2	1:E:271:LEU:HD11	1.69	0.56
2:F:157:LEU:HA	2:F:160:PHE:CE1	2.40	0.56
1:I:304:MET:HB3	1:K:169:LYS:NZ	2.20	0.56
1:I:318:SER:O	1:I:321:VAL:N	2.37	0.56
2:L:32:ILE:O	2:L:75:VAL:CB	2.54	0.56
2:L:138:GLU:OE1	2:L:138:GLU:N	2.30	0.56
1:A:10:ARG:NH1	2:D:189:ASP:OD1	2.38	0.56
1:A:317:TYR:CE2	3:A:401:NAD:H4N	2.33	0.56
2:B:32:ILE:N	2:B:74:LYS:O	2.38	0.56
2:B:239:VAL:HG22	2:B:314:ASP:HA	1.88	0.56
1:C:254:ASP:HA	1:C:257:ASN:HD22	1.71	0.56
1:Q:51:GLY:HA2	2:R:283:ILE:HD11	1.88	0.56
2:R:211:GLY:O	2:R:215:ALA:N	2.21	0.56
2:P:314:ASP:CG	2:P:318:GLY:H	2.08	0.56
2:P:317:TRP:O	2:P:320:SER:OG	2.23	0.56
1:G:2:LYS:O	1:G:90:ASP:N	2.38	0.56
1:G:11:ILE:HB	3:G:401:NAD:PN	2.45	0.56
2:H:230:ILE:HG12	2:F:308:LYS:HZ3	1.71	0.56
1:E:76:ASN:OD1	1:E:77:ARG:N	2.39	0.56
1:E:108:HIS:CD2	1:E:108:HIS:N	2.74	0.56
1:I:1:LEU:N	1:I:24:PRO:O	2.39	0.56
1:I:8:PHE:CE2	1:I:13:ARG:HA	2.39	0.56
2:J:252:THR:OG1	2:J:253:PHE:N	2.38	0.56
1:K:90:ASP:N	1:K:90:ASP:OD1	2.39	0.56
1:A:25:LEU:HD21	1:A:326:ASP:HA	1.87	0.56
1:A:45:LYS:O	1:A:53:PHE:N	2.25	0.56
1:A:195:ARG:NH2	1:G:361:TYR:H	2.03	0.56
2:B:185:GLN:HA	2:B:197:ARG:HD3	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:67:SER:HB3	2:D:72:VAL:HG22	1.88	0.56
2:D:140:TYR:HE2	2:D:332:ASN:HB2	1.70	0.56
2:D:142:HIS:CE1	2:D:334:TRP:HA	2.41	0.56
2:D:253:PHE:CE2	2:D:255:GLU:HB3	2.41	0.56
1:Q:182:GLN:OE1	1:Q:231:ARG:NH1	2.38	0.56
2:R:92:ASP:HB3	2:R:334:TRP:CH2	2.41	0.56
1:O:108:HIS:CD2	1:O:108:HIS:N	2.74	0.56
1:O:165:LEU:HD12	1:O:248:LYS:HD2	1.88	0.56
1:G:306:LYS:HZ3	1:E:227:GLY:HA2	1.70	0.56
2:H:34:ASP:CA	2:H:75:VAL:CG2	2.84	0.56
2:H:171:ILE:N	2:H:247:GLN:O	2.39	0.56
2:H:216:VAL:HA	2:H:219:VAL:HG22	1.88	0.56
1:E:126:PRO:HG2	1:E:144:ILE:HA	1.87	0.56
1:I:45:LYS:NZ	1:I:53:PHE:O	2.31	0.56
1:I:148:SER:OG	1:I:150:THR:OG1	2.17	0.56
1:I:279:VAL:HA	1:I:310:TRP:CZ2	2.41	0.56
2:J:13:ARG:NH2	3:J:401:NAD:O3B	2.38	0.56
2:J:253:PHE:CE1	2:J:256:GLU:HB2	2.40	0.56
1:K:147:ALA:O	1:K:152:ASN:ND2	2.34	0.56
2:L:1:LEU:O	2:L:28:ASP:N	2.39	0.56
2:L:96:GLU:OE2	2:L:98:THR:OG1	2.20	0.56
2:L:236:THR:HG1	2:L:238:ASN:ND2	2.03	0.56
2:L:238:ASN:OD1	2:L:286:ARG:NH2	2.33	0.56
1:A:17:ARG:NH1	1:A:44:LEU:O	2.35	0.56
1:A:304:MET:HE1	1:C:245:ASN:H	1.70	0.56
1:C:186:ASP:OD1	1:C:198:ALA:N	2.28	0.56
2:D:238:ASN:O	2:D:315:ASN:ND2	2.38	0.56
1:Q:8:PHE:CE1	1:Q:13:ARG:HG2	2.41	0.56
1:Q:296:LEU:HD13	1:O:205:PRO:HB2	1.87	0.56
2:R:230:ILE:HG12	2:P:308:LYS:HZ3	1.70	0.56
2:P:16:LEU:HA	2:P:19:TRP:HB3	1.87	0.56
1:G:215:SER:HB2	1:G:222:LYS:HG2	1.87	0.56
1:E:85:ALA:H	1:E:112:GLY:HA3	1.70	0.56
1:E:319:GLN:HB2	1:E:320:ARG:NH2	2.20	0.56
2:F:252:THR:OG1	2:F:253:PHE:N	2.38	0.56
1:I:272:ASP:HB3	1:I:290:SER:O	2.05	0.55
2:J:176:THR:O	2:J:243:ASP:N	2.39	0.55
1:K:150:THR:HA	1:K:311:TYR:OH	2.06	0.55
2:L:154:THR:HG21	2:L:215:ALA:HB3	1.87	0.55
2:L:179:HIS:HB3	2:L:233:ARG:HG2	1.89	0.55
1:A:60:ILE:HB	1:A:63:THR:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:84:TRP:NE1	1:C:108:HIS:O	2.37	0.55
2:D:17:ARG:NH1	2:D:48:ASP:OD2	2.39	0.55
1:Q:190:HIS:NE2	1:Q:195:ARG:HB2	2.21	0.55
1:Q:280:SER:OG	1:O:202:ASN:OD1	2.23	0.55
2:R:251:LYS:NZ	2:R:303:GLY:O	2.39	0.55
2:R:301:VAL:HG22	2:R:307:VAL:HG22	1.87	0.55
1:O:91:ILE:HG21	1:O:117:ILE:HG13	1.88	0.55
2:P:167:LYS:HG2	2:P:260:ALA:HB1	1.87	0.55
2:P:236:THR:HG23	2:P:238:ASN:H	1.71	0.55
1:G:190:HIS:CE1	1:G:195:ARG:HB2	2.42	0.55
2:H:22:ARG:HH21	2:H:321:GLN:HA	1.71	0.55
2:H:81:PRO:HG2	2:H:109:LYS:HE2	1.88	0.55
1:E:62:GLU:O	1:E:73:VAL:N	2.31	0.55
1:E:254:ASP:HA	1:E:257:ASN:HD22	1.70	0.55
1:I:84:TRP:N	1:I:111:ALA:O	2.38	0.55
2:J:27:LEU:HB3	2:J:29:VAL:HG13	1.88	0.55
2:J:156:CYS:SG	2:J:157:LEU:N	2.79	0.55
1:K:45:LYS:O	1:K:53:PHE:N	2.24	0.55
2:L:193:ARG:H	2:L:193:ARG:CZ	2.20	0.55
2:B:274:SER:N	2:B:292:SER:O	2.39	0.55
1:Q:62:GLU:O	1:Q:73:VAL:N	2.39	0.55
2:R:280:LEU:O	2:P:196:ARG:NH2	2.38	0.55
1:O:76:ASN:OD1	1:O:77:ARG:N	2.37	0.55
1:O:316:GLY:O	1:O:320:ARG:HG2	2.06	0.55
2:P:194:ASP:HB3	2:P:197:ARG:HB2	1.88	0.55
1:G:60(A):ASP:OD1	1:G:61:ASN:ND2	2.39	0.55
2:H:96:GLU:OE2	2:H:101:PHE:N	2.25	0.55
2:H:137:GLU:OE1	2:H:137:GLU:N	2.39	0.55
1:E:31:ASN:HD21	1:E:76:ASN:H	1.52	0.55
1:E:214:VAL:O	1:E:218:LEU:N	2.37	0.55
2:F:18:CYS:SG	2:F:320:SER:OG	2.64	0.55
1:I:242:LEU:HB3	1:I:307:VAL:HB	1.88	0.55
2:J:192:HIS:CE1	2:J:197:ARG:HB3	2.40	0.55
1:K:56:ASP:N	1:K:67:ASP:OD2	2.39	0.55
2:L:153:THR:O	2:L:157:LEU:N	2.20	0.55
1:A:116:VAL:HB	1:A:143:ILE:HA	1.86	0.55
2:B:195:LEU:HD22	2:D:279:PRO:HG2	1.87	0.55
1:C:303:ASP:OD1	1:C:304:MET:N	2.36	0.55
1:Q:83:PRO:O	1:Q:87:LEU:HG	2.06	0.55
1:Q:177:SER:HB3	1:Q:234:THR:O	2.06	0.55
1:O:256:ASN:HA	1:O:259:PHE:CD2	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:263:GLU:HA	2:P:266:ASP:HB2	1.89	0.55
1:G:8:PHE:O	3:G:401:NAD:O2B	2.24	0.55
1:G:165:LEU:O	1:G:248:LYS:NZ	2.29	0.55
1:E:259:PHE:O	1:E:263:ALA:N	2.26	0.55
1:I:56:ASP:N	1:I:67:ASP:OD2	2.40	0.55
1:I:184:LEU:HD23	2:L:183:GLY:HA2	1.88	0.55
1:I:357:GLU:N	1:Q:188:SER:O	2.40	0.55
2:J:174:THR:O	2:J:245:VAL:N	2.38	0.55
1:K:14:ASN:HD22	1:K:14:ASN:N	2.04	0.55
1:K:57:VAL:HG13	1:K:66:ILE:HG12	1.87	0.55
2:L:42:SER:CB	2:L:66:ILE:CD1	2.74	0.55
1:A:65:SER:HA	1:A:70:PRO:HA	1.89	0.55
2:B:37:GLY:HA3	2:B:40:GLN:CD	2.26	0.55
2:B:86:TRP:HD1	2:B:115:ALA:H	1.54	0.55
2:B:194:ASP:CG	2:B:197:ARG:H	2.09	0.55
1:C:124:ASP:O	1:O:103:PRO:HD3	2.07	0.55
2:D:319:TYR:O	2:D:323:VAL:HG23	2.06	0.55
1:O:56:ASP:OD1	1:O:58:LYS:NZ	2.36	0.55
2:P:15:PHE:HD2	2:P:324:VAL:HG22	1.71	0.55
2:P:193:ARG:H	2:P:193:ARG:CZ	2.19	0.55
2:P:196:ARG:HB3	2:P:196:ARG:HH11	1.72	0.55
2:H:98:THR:HA	3:H:401:NAD:H52A	1.89	0.55
1:E:298:MET:SD	1:E:306:LYS:HD3	2.46	0.55
2:F:15:PHE:O	2:F:18:CYS:HB2	2.06	0.55
1:I:47:ASP:H	1:I:52:THR:HA	1.72	0.55
1:I:65:SER:HA	1:I:70:PRO:HA	1.89	0.55
1:I:203:ILE:HA	1:I:231:ARG:O	2.07	0.55
1:I:316:GLY:O	1:I:319:GLN:HG2	2.06	0.55
1:I:328:VAL:O	1:I:332:TRP:N	2.40	0.55
2:J:39:LYS:HZ3	2:J:39:LYS:N	2.05	0.55
1:K:84:TRP:O	1:K:88:GLY:N	2.40	0.55
1:K:84:TRP:HA	1:K:87:LEU:HD12	1.88	0.55
1:K:214:VAL:HG13	1:K:218:LEU:HD13	1.87	0.55
1:A:209:GLY:O	1:A:213:ALA:N	2.32	0.55
1:C:3:VAL:HA	1:C:89:ILE:HG23	1.88	0.55
1:C:130:VAL:HG22	1:C:324:LEU:HD23	1.88	0.55
1:C:161:LEU:HA	1:C:165:LEU:HD13	1.88	0.55
2:D:33:ASN:O	3:D:401:NAD:H2A	2.06	0.55
2:D:196:ARG:HB2	2:D:206:VAL:HG13	1.89	0.55
2:D:196:ARG:CZ	2:D:207:PRO:HD2	2.36	0.55
1:Q:171:THR:HG21	1:O:243:VAL:HG11	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:291:THR:O	1:Q:310:TRP:N	2.39	0.55
2:H:320:SER:HA	2:H:323:VAL:HB	1.89	0.55
1:E:246:ILE:N	1:E:303:ASP:O	2.39	0.55
1:E:319:GLN:HB2	1:E:320:ARG:CZ	2.37	0.55
2:F:86:TRP:CZ2	2:F:110:HIS:HA	2.41	0.55
1:I:327:LEU:O	1:I:331:LYS:N	2.38	0.55
2:J:39:LYS:HG2	2:J:40:GLN:N	2.21	0.55
1:K:84:TRP:HB2	1:K:89:ILE:HB	1.89	0.55
1:K:283:PHE:HE2	1:K:310:TRP:CD2	2.24	0.55
1:A:0:LYS:HD3	1:A:23:SER:O	2.07	0.55
1:A:203:ILE:HG23	1:A:232:VAL:HG12	1.88	0.55
2:B:93:LEU:HB2	2:B:117:LYS:HB2	1.89	0.55
1:C:177:SER:HB3	1:C:234:THR:O	2.06	0.55
2:D:22:ARG:NH2	2:D:321:GLN:O	2.39	0.55
1:Q:87:LEU:HB2	1:Q:89:ILE:HG12	1.88	0.55
2:R:133:VAL:HA	2:R:137:GLU:HB3	1.88	0.55
2:R:264:SER:O	2:R:268:GLU:N	2.33	0.55
2:R:302:MET:N	2:R:306:MET:O	2.31	0.55
1:O:166:GLY:O	1:O:247:GLU:N	2.25	0.55
1:O:358:CYS:SG	1:O:359:LYS:N	2.78	0.55
2:P:7:GLY:HA2	3:P:401:NAD:N3A	2.22	0.55
2:P:156:CYS:SG	2:P:157:LEU:N	2.80	0.55
1:G:14:ASN:HB3	1:G:318:SER:HB3	1.89	0.55
1:G:48:SER:OG	2:F:189:ASP:OD2	2.25	0.55
1:G:175:THR:HB	1:G:232:VAL:HG21	1.88	0.55
1:E:161:LEU:HA	1:E:259:PHE:HZ	1.71	0.55
1:I:137:TYR:HB3	1:I:327:LEU:HD11	1.87	0.55
1:I:157:PHE:HB2	1:I:259:PHE:CE1	2.42	0.55
1:I:238:SER:O	1:I:311:TYR:N	2.40	0.55
1:I:252:ALA:O	1:I:256:ASN:N	2.31	0.55
1:K:11:ILE:O	1:K:15:PHE:N	2.36	0.55
2:L:223:LEU:HD23	2:L:227:LEU:HG	1.89	0.55
1:A:14:ASN:HA	1:A:17:ARG:HG3	1.88	0.55
1:A:84:TRP:N	1:A:111:ALA:O	2.40	0.55
1:A:115:LYS:HZ1	1:A:139:HIS:CE1	2.25	0.55
1:A:214:VAL:O	1:A:218:LEU:N	2.40	0.55
2:B:140:TYR:CZ	2:B:330:VAL:HG22	2.41	0.55
2:B:253:PHE:CE1	2:B:256:GLU:HB2	2.41	0.55
1:C:45:LYS:NZ	1:C:53:PHE:O	2.24	0.55
2:D:144:ASP:OD1	2:D:144:ASP:N	2.38	0.55
1:Q:6:ASN:ND2	1:Q:95:GLY:H	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:43:HIS:O	2:R:47:TYR:N	2.32	0.55
2:R:50:ILE:HG21	2:R:238:ASN:HD21	1.71	0.55
1:O:117:ILE:HG12	1:O:144:ILE:HD11	1.89	0.55
1:O:210:ALA:HA	1:O:213:ALA:HB3	1.88	0.55
1:G:40:ALA:O	1:G:44:LEU:N	2.24	0.55
1:G:84:TRP:HE3	1:G:89:ILE:HG13	1.72	0.55
2:H:186:ARG:HH22	2:H:193:ARG:HH22	1.53	0.55
2:H:224:LYS:H	2:H:226:LYS:HZ3	1.54	0.55
2:F:108:GLY:O	2:F:112:GLN:N	2.40	0.55
1:K:64:PHE:O	1:K:71:ILE:N	2.39	0.55
2:L:120:ILE:O	2:L:149:ASN:N	2.31	0.55
1:A:156:PRO:HB3	1:A:270:VAL:HG12	1.89	0.55
1:A:258:ALA:HA	1:A:261:LYS:HE3	1.88	0.55
2:B:194:ASP:O	2:B:198:ALA:N	2.39	0.55
1:C:94:GLU:HB3	1:C:118:ILE:HG23	1.89	0.55
2:D:182:THR:N	2:D:185:GLN:OE1	2.26	0.55
1:Q:28:VAL:HA	1:Q:71:ILE:HG12	1.88	0.55
2:R:298:LEU:HD12	2:P:207:PRO:HB3	1.87	0.55
2:P:80:ASN:HD22	2:P:83:ASN:HB2	1.71	0.55
2:P:118:VAL:HB	2:P:146:ILE:HA	1.88	0.55
2:P:119:LEU:HD21	2:P:149:ASN:HB2	1.88	0.55
2:P:289:ASP:OD1	2:P:317:TRP:NE1	2.37	0.55
1:G:116:VAL:HB	1:G:143:ILE:HG12	1.89	0.55
1:G:256:ASN:HA	1:G:259:PHE:CD2	2.41	0.55
1:E:153:CYS:SG	1:E:154:LEU:N	2.79	0.55
2:F:38:VAL:HG21	2:F:63:ASP:C	2.27	0.55
1:I:15:PHE:CE1	1:I:321:VAL:HB	2.42	0.55
1:I:118:ILE:HD12	1:I:125:ILE:HG21	1.89	0.55
1:I:258:ALA:HA	1:I:261:LYS:HE3	1.89	0.55
2:J:8:PHE:O	3:J:401:NAD:O3B	2.24	0.55
2:J:263:GLU:O	2:J:267:ASN:ND2	2.39	0.55
1:A:132:VAL:HG11	1:A:155:ALA:HB1	1.89	0.55
1:A:281:VAL:HA	1:A:284:ARG:HG2	1.89	0.55
1:A:343:ASP:HA	2:F:37:GLY:HA2	1.88	0.55
1:C:5:ILE:HG13	1:C:27:VAL:HG11	1.88	0.55
1:C:212:LYS:HE3	1:C:223:GLY:H	1.72	0.55
2:D:226:LYS:HG3	2:D:227:LEU:HD22	1.89	0.55
1:Q:218:LEU:HD12	1:Q:220:GLN:HE22	1.72	0.55
1:Q:279:VAL:N	1:Q:282:ASP:OD2	2.32	0.55
1:Q:320:ARG:HA	1:Q:323:ASP:OD2	2.07	0.55
2:R:8:PHE:CZ	2:R:45:LEU:HB2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:74:VAL:HG12	1:O:75:SER:H	1.72	0.55
2:P:160:PHE:O	2:P:164:LEU:N	2.38	0.55
2:P:178:THR:HG1	2:P:241:VAL:H	1.53	0.55
1:G:2:LYS:HB2	1:G:89:ILE:HA	1.87	0.55
2:H:31:VAL:CA	2:H:74:LYS:HB2	2.36	0.55
2:H:314:ASP:CG	2:H:318:GLY:H	2.09	0.55
2:F:161:VAL:HA	2:F:164:LEU:HD12	1.88	0.55
2:F:274:SER:N	2:F:292:SER:O	2.39	0.55
1:I:28:VAL:O	1:I:72:LYS:N	2.29	0.55
2:J:117:LYS:NZ	2:J:142:HIS:O	2.29	0.55
2:J:140:TYR:CZ	2:J:330:VAL:HG22	2.42	0.55
3:K:401:NAD:O2D	1:E:361:TYR:O	2.25	0.55
2:L:2:LYS:HB2	2:L:91:ILE:HD13	1.89	0.55
2:B:120:ILE:O	2:B:149:ASN:N	2.40	0.55
1:C:121:PRO:HG3	1:C:148:SER:N	2.22	0.55
2:D:117:LYS:HE3	2:D:145:THR:HA	1.87	0.55
2:D:174:THR:HA	2:D:228:ASN:O	2.07	0.55
2:D:299:THR:HA	2:D:310:ILE:HD11	1.89	0.55
1:Q:3:VAL:CG2	1:Q:25:LEU:HB2	2.37	0.55
1:Q:29:VAL:HA	1:Q:72:LYS:O	2.05	0.55
1:O:33:SER:OG	1:O:76:ASN:N	2.39	0.55
1:O:213:ALA:HA	1:O:216:LEU:HG	1.89	0.55
2:P:142:HIS:HE1	2:P:330:VAL:O	1.90	0.55
2:H:13:ARG:CZ	2:H:44:LEU:CD1	2.85	0.55
2:H:177:THR:OG1	2:H:313:TYR:OH	2.22	0.55
2:H:253:PHE:HA	2:H:301:VAL:HG11	1.88	0.55
1:E:4:ALA:O	1:E:93:ILE:HG12	2.07	0.55
2:F:142:HIS:HE1	2:F:330:VAL:O	1.90	0.55
2:F:157:LEU:HB2	2:F:161:VAL:HG11	1.89	0.55
1:I:89:ILE:O	1:I:114:LYS:NZ	2.39	0.54
2:J:59:LYS:NZ	2:J:61:ALA:HB2	2.22	0.54
2:J:152:CYS:HB3	2:J:319:TYR:CD2	2.42	0.54
2:L:86:TRP:HE1	2:L:113:ALA:HB3	1.72	0.54
2:L:239:VAL:HB	2:L:282:SER:HB2	1.89	0.54
2:L:301:VAL:HG22	2:L:307:VAL:HG13	1.89	0.54
1:A:58:LYS:N	1:A:65:SER:O	2.40	0.54
1:A:76:ASN:HD22	1:A:82:LEU:HD21	1.71	0.54
1:A:124:ASP:OD1	1:A:124:ASP:N	2.39	0.54
2:B:300:MET:O	2:B:308:LYS:N	2.34	0.54
2:B:317:TRP:O	2:B:321:GLN:HG2	2.08	0.54
1:C:5:ILE:HB	1:C:30:VAL:HG13	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:139:HIS:CE1	1:C:332:TRP:HA	2.42	0.54
1:C:300:MET:HB3	1:C:304:MET:HB3	1.88	0.54
2:D:120:ILE:O	2:D:149:ASN:N	2.32	0.54
1:Q:16:LEU:HA	1:Q:18(A):TRP:HB3	1.89	0.54
1:Q:130:VAL:HG21	1:Q:323:ASP:OD2	2.07	0.54
2:R:11:ILE:HG12	3:R:401:NAD:PN	2.47	0.54
2:R:320:SER:O	2:R:324:VAL:HG23	2.07	0.54
1:O:291:THR:O	1:O:310:TRP:N	2.30	0.54
2:F:87:GLY:HA2	2:F:114:GLY:HA3	1.89	0.54
1:I:186:ASP:OD1	1:I:198:ALA:N	2.39	0.54
1:I:287:ASP:N	1:I:287:ASP:OD1	2.40	0.54
2:J:175:MET:HB3	2:J:244:LEU:HB2	1.89	0.54
2:J:194:ASP:CG	2:J:197:ARG:H	2.11	0.54
2:L:241:VAL:HG22	2:L:312:TRP:HA	1.89	0.54
2:L:294:ILE:HG23	2:L:311:ALA:HB2	1.89	0.54
1:A:139(A):ASP:O	1:G:107:LYS:NZ	2.38	0.54
2:B:80:ASN:HD21	2:B:82:VAL:HB	1.72	0.54
1:C:47:ASP:OD1	1:C:51:GLY:N	2.40	0.54
1:Q:226:ASN:OD1	1:Q:227:GLY:N	2.37	0.54
1:G:316:GLY:HA2	1:G:319:GLN:HG2	1.89	0.54
1:E:236:ASN:OD1	1:E:314:GLU:N	2.40	0.54
2:F:42:SER:OG	2:F:43:HIS:N	2.40	0.54
2:F:263:GLU:HA	2:F:266:ASP:HB2	1.89	0.54
1:I:100:VAL:HB	1:I:122(A):LYS:HG2	1.89	0.54
1:I:235:PRO:HG2	1:I:284:ARG:NH2	2.23	0.54
2:J:93:LEU:HD12	2:J:117:LYS:HB2	1.90	0.54
2:J:106:GLY:O	2:J:110:HIS:N	2.31	0.54
2:J:277:ASP:OD1	2:J:297:SER:N	2.36	0.54
1:K:165:LEU:HB3	1:K:248:LYS:HB2	1.90	0.54
1:C:317:TYR:O	1:C:321:VAL:HG23	2.07	0.54
2:D:6:ASN:HB3	2:D:96:GLU:HA	1.88	0.54
1:Q:173:THR:OG1	1:Q:228:ILE:HG23	2.07	0.54
1:Q:267:LEU:HB3	1:Q:271:LEU:HD13	1.88	0.54
2:R:171:ILE:N	2:R:247:GLN:O	2.41	0.54
1:O:122:ALA:HA	1:O:125:ILE:HG12	1.89	0.54
2:P:111:LEU:HD21	2:P:118:VAL:HG23	1.89	0.54
1:G:182:GLN:OE1	1:G:231:ARG:NH1	2.40	0.54
2:H:102:VAL:HG13	2:H:125:LYS:HB2	1.90	0.54
1:E:10:ARG:CZ	1:E:14:ASN:HD21	2.20	0.54
1:E:241:ASP:CB	1:E:307:VAL:H	2.21	0.54
2:F:20:HIS:HB3	2:F:54:PHE:HZ	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:39:LYS:HZ1	2:J:40:GLN:HG3	1.71	0.54
1:K:137:TYR:CZ	1:K:331:LYS:HB2	2.42	0.54
1:K:139:HIS:CE1	1:K:332:TRP:HA	2.43	0.54
1:K:168:VAL:N	1:K:245:ASN:O	2.41	0.54
1:K:317:TYR:O	1:K:321:VAL:HG23	2.07	0.54
3:K:402:NAD:O2N	1:E:10:ARG:N	2.40	0.54
1:A:132:VAL:HG22	1:A:159:LYS:HD2	1.88	0.54
1:A:271:LEU:HA	1:A:290:SER:HB3	1.88	0.54
2:B:164:LEU:HA	2:B:168:PHE:CD1	2.43	0.54
1:C:214:VAL:HG13	1:C:218:LEU:HD13	1.89	0.54
1:C:226:ASN:OD1	1:C:227:GLY:N	2.36	0.54
2:D:129:PRO:HD2	2:D:147:ILE:HA	1.90	0.54
2:D:211:GLY:O	2:D:215:ALA:N	2.20	0.54
1:Q:310:TRP:HE1	1:O:194:ARG:HH12	1.55	0.54
2:R:240:SER:OG	2:R:241:VAL:N	2.41	0.54
1:O:47:ASP:OD1	1:O:50:LEU:N	2.40	0.54
2:P:8:PHE:CE2	2:P:13:ARG:HG3	2.42	0.54
1:G:332:TRP:CD1	1:G:333:PRO:HD2	2.43	0.54
2:H:196:ARG:NH2	2:F:280:LEU:O	2.40	0.54
2:F:86:TRP:CD1	2:F:113:ALA:HB3	2.42	0.54
1:I:148:SER:O	1:I:152:ASN:ND2	2.41	0.54
1:I:253:GLU:O	1:I:257:ASN:N	2.36	0.54
2:J:54:PHE:HE2	2:J:68:VAL:HG21	1.72	0.54
2:J:188:LEU:HA	2:J:200:ALA:HB2	1.89	0.54
2:J:295:ASP:OD2	2:J:297:SER:OG	2.15	0.54
1:K:114:LYS:HB2	1:K:332:TRP:CH2	2.43	0.54
1:K:134:GLU:H	1:K:134:GLU:CD	2.09	0.54
1:K:239:VAL:HA	1:K:309:ALA:O	2.07	0.54
2:L:48:ASP:H	2:L:53:THR:HA	1.72	0.54
2:L:277:ASP:HB3	2:L:297:SER:HB3	1.89	0.54
1:A:16:LEU:HD22	1:A:44:LEU:HD21	1.90	0.54
1:A:56:ASP:N	1:A:67:ASP:OD2	2.40	0.54
2:B:259:ALA:HA	2:B:262:ARG:HB2	1.90	0.54
1:C:174:THR:OG1	1:C:239:VAL:O	2.25	0.54
1:C:288:PHE:O	1:C:320:ARG:NH1	2.41	0.54
2:D:1:LEU:O	2:D:28:ASP:N	2.40	0.54
2:D:96:GLU:HG2	2:D:98:THR:HG23	1.89	0.54
2:D:178:THR:HG1	2:D:241:VAL:H	1.49	0.54
2:R:210:THR:HB	2:R:233:ARG:HH12	1.72	0.54
1:O:10:ARG:HB2	3:O:401:NAD:O3	2.08	0.54
1:O:96:THR:HG1	1:O:97:GLY:N	2.05	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:13:ARG:HG2	2:P:45:LEU:HA	1.87	0.54
2:H:298:LEU:HD13	2:F:230:ILE:HD13	1.88	0.54
1:I:58:LYS:N	1:I:65:SER:O	2.40	0.54
2:J:277:ASP:OD1	2:J:296:SER:N	2.41	0.54
1:K:31:ASN:HD21	1:K:76:ASN:H	1.53	0.54
1:K:324:LEU:HD13	1:K:327:LEU:HB3	1.90	0.54
2:L:96:GLU:HG2	2:L:98:THR:HG23	1.90	0.54
2:L:281:VAL:N	2:L:284:ASP:OD2	2.18	0.54
1:A:128:TYR:HA	1:A:133:ASN:OD1	2.08	0.54
1:A:130:VAL:HA	1:A:134:GLU:HG3	1.89	0.54
1:A:139:HIS:CD2	1:A:333:PRO:HD3	2.42	0.54
1:A:169:LYS:NZ	1:C:301:GLY:HA3	2.22	0.54
2:B:246:VAL:HG23	2:B:307:VAL:HB	1.88	0.54
2:B:248:VAL:N	2:B:305:ASP:O	2.35	0.54
2:R:43:HIS:HA	2:R:46:LYS:HB3	1.89	0.54
1:O:158:VAL:HG22	1:O:242:LEU:HD22	1.88	0.54
2:P:86:TRP:CD1	2:P:113:ALA:HB3	2.43	0.54
2:P:116:LYS:O	2:P:145:THR:OG1	2.14	0.54
2:P:172:LYS:O	2:P:247:GLN:N	2.41	0.54
2:P:210:THR:HG22	2:P:231:ALA:HB2	1.90	0.54
2:H:163:VAL:HA	2:H:166:GLN:HB2	1.89	0.54
1:E:151:THR:HA	1:E:154:LEU:HD23	1.88	0.54
2:F:208:THR:OG1	2:F:209:SER:N	2.40	0.54
2:J:102:VAL:HG22	2:J:124:GLY:HA2	1.89	0.54
2:L:165:ASP:OD1	2:L:170:ILE:N	2.41	0.54
2:L:280:LEU:HB3	2:L:285:PHE:CZ	2.43	0.54
2:B:38:VAL:O	2:B:42:SER:N	2.35	0.54
2:B:96:GLU:HG3	2:B:101:PHE:HB2	1.90	0.54
2:B:131:TYR:N	2:B:148:SER:O	2.34	0.54
2:B:302:MET:HE3	2:D:228:ASN:HB3	1.90	0.54
2:D:131:TYR:CZ	2:D:140:TYR:HA	2.42	0.54
2:D:154:THR:HG21	2:D:215:ALA:HB3	1.89	0.54
1:Q:61:ASN:ND2	1:Q:62:GLU:OE2	2.40	0.54
1:Q:156:PRO:HA	1:Q:159:LYS:HD3	1.89	0.54
1:O:164:GLU:O	1:O:248:LYS:NZ	2.35	0.54
1:G:101:ASP:HB2	1:G:103:PRO:HG2	1.89	0.54
2:H:164:LEU:HD23	2:H:168:PHE:HB2	1.89	0.54
2:F:56:ALA:O	2:F:58:VAL:HG12	2.07	0.54
2:F:193:ARG:H	2:F:193:ARG:CZ	2.21	0.54
2:F:294:ILE:HG23	2:F:311:ALA:HB2	1.89	0.54
1:I:50:LEU:HD22	1:I:285:CYS:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:270:VAL:HA	1:I:289:SER:OG	2.07	0.54
1:K:37:VAL:O	1:K:41:THR:N	2.40	0.54
2:L:20:HIS:NE2	2:L:69:ASP:OD1	2.41	0.54
1:A:178:TYR:H	1:A:234:THR:H	1.53	0.54
1:A:195:ARG:CZ	1:G:360:LEU:HA	2.38	0.54
2:B:11:ILE:N	3:B:401:NAD:O1N	2.41	0.54
1:C:79:PRO:HD3	1:C:99:PHE:CZ	2.42	0.54
1:C:182:GLN:HE22	1:C:231:ARG:CZ	2.21	0.54
1:Q:128:TYR:CE1	1:Q:137:TYR:HB2	2.43	0.54
2:R:164:LEU:HD23	2:R:168:PHE:HB2	1.89	0.54
2:R:203:LEU:HD22	2:P:236:THR:HA	1.89	0.54
1:O:4:ALA:O	1:O:93:ILE:HG12	2.07	0.54
2:P:6:ASN:N	2:P:95:ILE:O	2.41	0.54
2:P:14:ASN:HD21	2:P:317:TRP:HB2	1.73	0.54
1:G:192:ASP:OD2	1:G:195:ARG:N	2.27	0.54
2:H:38:VAL:HB	2:H:66:ILE:CD1	2.38	0.54
2:H:238:ASN:HD22	2:H:239:VAL:H	1.55	0.54
1:E:178:TYR:N	1:E:234:THR:O	2.40	0.54
1:E:179:THR:OG1	1:E:182:GLN:OE1	2.17	0.54
1:I:118:ILE:O	1:I:146:ASN:N	2.41	0.54
1:I:291:THR:HB	1:I:310:TRP:C	2.28	0.54
1:I:297:THR:OG1	1:I:308:VAL:O	2.21	0.54
2:J:131:TYR:CZ	2:J:140:TYR:HA	2.42	0.54
1:K:177:SER:HB3	1:K:234:THR:O	2.08	0.54
1:K:182:GLN:HE22	1:K:231:ARG:NE	2.06	0.54
2:L:243:ASP:OD2	2:L:243:ASP:N	2.40	0.54
1:A:129:VAL:HB	1:A:132:VAL:HB	1.90	0.54
1:A:139:HIS:ND1	1:A:331:LYS:HB3	2.22	0.54
2:B:131:TYR:CZ	2:B:140:TYR:HA	2.43	0.54
2:B:277:ASP:OD1	2:B:297:SER:N	2.34	0.54
1:C:207:SER:HB2	1:C:228:ILE:HB	1.90	0.54
1:Q:94:GLU:OE2	1:Q:96:THR:OG1	2.18	0.54
1:Q:114:LYS:H	1:Q:114:LYS:HE3	1.72	0.54
1:Q:171:THR:O	1:Q:243:VAL:N	2.41	0.54
1:Q:182:GLN:HA	1:Q:195:ARG:HB3	1.88	0.54
2:R:48:ASP:OD2	2:R:51:LEU:N	2.41	0.54
2:R:67:SER:HB3	2:R:72:VAL:CG1	2.38	0.54
2:R:161:VAL:O	2:R:165:ASP:N	2.24	0.54
2:R:216:VAL:HA	2:R:219:VAL:HG22	1.89	0.54
1:O:21:LYS:HZ3	1:O:21:LYS:H	1.55	0.54
1:O:21:LYS:H	1:O:21:LYS:NZ	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:152:CYS:HB2	2:P:315:ASN:HA	1.89	0.54
1:G:118:ILE:HD11	1:G:143:ILE:HG22	1.90	0.54
1:G:193:LEU:HD12	1:G:194:ARG:H	1.73	0.54
1:G:340:ALA:O	1:G:348:PHE:N	2.34	0.54
2:F:327:ALA:O	2:F:331:ALA:N	2.33	0.54
1:I:167:ILE:HG23	1:I:246:ILE:HD12	1.88	0.54
1:I:327:LEU:HD23	1:I:328:VAL:HG22	1.89	0.54
1:K:58:LYS:NZ	1:K:59:ILE:H	2.06	0.54
2:L:8:PHE:O	2:L:13:ARG:NH1	2.41	0.54
2:L:60:THR:HB	2:L:66:ILE:HD13	1.90	0.54
2:L:131:TYR:CZ	2:L:140:TYR:HA	2.43	0.54
1:A:18:CYS:O	1:A:20:ARG:N	2.41	0.54
1:A:45:LYS:NZ	1:A:53:PHE:O	2.33	0.54
1:A:235:PRO:HG2	1:A:284:ARG:HH22	1.73	0.54
2:B:8:PHE:CG	2:B:32:ILE:HG21	2.43	0.54
1:C:0:LYS:N	1:C:23:SER:O	2.41	0.54
1:C:138:GLY:H	1:C:140:VAL:HB	1.72	0.54
1:O:115:LYS:HE3	1:O:139(A):ASP:HA	1.89	0.54
2:P:157:LEU:HA	2:P:160:PHE:CZ	2.43	0.54
2:P:205:ILE:HD11	2:P:232:LEU:HB3	1.89	0.54
1:E:236:ASN:HD21	1:E:315:TRP:H	1.55	0.54
1:I:18:CYS:O	1:I:20:ARG:N	2.40	0.53
1:I:181:ASP:OD2	1:I:231:ARG:NH2	2.37	0.53
1:I:303:ASP:OD1	1:I:303:ASP:N	2.41	0.53
1:K:87:LEU:HB2	1:K:89:ILE:HG12	1.89	0.53
3:K:401:NAD:O2D	1:E:362:GLU:OXT	2.26	0.53
1:A:60:ILE:N	1:A:64:PHE:HA	2.22	0.53
1:A:230:LEU:O	1:A:232:VAL:HG13	2.07	0.53
1:A:295:SER:OG	1:A:296:LEU:N	2.41	0.53
2:B:9:GLY:O	2:B:13:ARG:N	2.28	0.53
2:B:230:ILE:HG12	2:D:308:LYS:HD3	1.89	0.53
1:C:174:THR:OG1	1:C:238:SER:OG	2.17	0.53
2:D:120:ILE:H	2:D:148:SER:HA	1.71	0.53
1:Q:124:ASP:OD1	1:Q:124:ASP:N	2.41	0.53
2:R:31:VAL:HA	2:R:74:LYS:O	2.08	0.53
1:O:20:ARG:HD2	1:O:21:LYS:HZ3	1.72	0.53
1:O:244:VAL:O	1:O:304:MET:HA	2.07	0.53
2:P:7:GLY:H	2:P:33:ASN:ND2	2.06	0.53
1:G:10:ARG:HH12	1:G:48:SER:N	2.03	0.53
1:G:306:LYS:HE2	1:E:228:ILE:HG23	1.90	0.53
1:E:24:PRO:HD2	1:E:25:LEU:HD22	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:29:VAL:HG21	1:E:87:LEU:HD13	1.90	0.53
1:E:137:TYR:CD2	1:E:331:LYS:HB3	2.42	0.53
1:E:175:THR:HB	1:E:232:VAL:HG21	1.90	0.53
2:F:93:LEU:HD21	2:F:95:ILE:HD11	1.90	0.53
1:I:17:ARG:NH1	1:I:44:LEU:O	2.34	0.53
1:I:125:ILE:HG12	1:I:143:ILE:HB	1.91	0.53
3:K:402:NAD:H2A	1:E:31:ASN:ND2	2.23	0.53
2:L:17:ARG:NH1	2:L:48:ASP:OD2	2.42	0.53
1:A:252:ALA:O	1:A:256:ASN:N	2.29	0.53
1:A:257:ASN:OD1	1:A:260:ARG:NH2	2.41	0.53
2:D:301:VAL:HG22	2:D:307:VAL:HG13	1.89	0.53
1:Q:30:VAL:O	1:Q:74:VAL:N	2.33	0.53
1:Q:171:THR:O	1:Q:242:LEU:HD12	2.08	0.53
2:R:80:ASN:ND2	2:R:82:VAL:HB	2.23	0.53
1:O:30:VAL:H	1:O:73:VAL:HA	1.73	0.53
2:P:274:SER:N	2:P:292:SER:O	2.39	0.53
1:G:16:LEU:HD12	1:G:18(A):TRP:HB3	1.90	0.53
1:G:124:ASP:N	1:G:124:ASP:OD1	2.41	0.53
2:H:20:HIS:O	2:H:23:LYS:NZ	2.36	0.53
2:H:298:LEU:HD12	2:F:207:PRO:HB3	1.89	0.53
1:E:20:ARG:HH21	1:E:319:GLN:NE2	2.02	0.53
1:E:41:THR:HG21	1:E:59:ILE:HG12	1.88	0.53
1:E:60:ILE:HD11	1:E:65:SER:HB3	1.89	0.53
1:E:312:ASP:OD2	1:E:315:TRP:N	2.41	0.53
2:F:119:LEU:HD21	2:F:149:ASN:HB2	1.89	0.53
1:I:128:TYR:HA	1:I:133:ASN:OD1	2.08	0.53
2:J:164:LEU:HB3	2:J:170:ILE:HD11	1.90	0.53
2:J:264:SER:O	2:J:268:GLU:N	2.41	0.53
1:K:13:ARG:HA	1:K:44:LEU:HD12	1.89	0.53
1:K:253:GLU:HA	1:K:256:ASN:ND2	2.22	0.53
1:K:273:VAL:HG13	1:K:292:ILE:HD11	1.91	0.53
2:L:205:ILE:HD11	2:L:232:LEU:HB3	1.91	0.53
1:A:287:ASP:OD1	1:A:315:TRP:NE1	2.38	0.53
2:B:314:ASP:OD1	2:B:316:GLU:N	2.41	0.53
1:C:134:GLU:H	1:C:134:GLU:CD	2.10	0.53
1:C:183:ARG:HG2	1:C:187:ALA:H	1.73	0.53
1:C:191:ARG:NH2	1:O:346:GLU:O	2.41	0.53
2:D:79:ARG:HD3	3:D:401:NAD:N6A	2.23	0.53
1:Q:9:GLY:H	1:Q:12:GLY:HA3	1.73	0.53
1:Q:47:ASP:OD2	1:Q:50:LEU:N	2.41	0.53
1:Q:66:ILE:HD11	1:Q:71:ILE:HB	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:78:ASP:HB3	1:Q:81:LYS:HD2	1.89	0.53
1:Q:90:ASP:O	1:Q:115:LYS:N	2.37	0.53
2:R:42:SER:O	2:R:46:LYS:N	2.27	0.53
2:R:203:LEU:HD22	2:P:237:PRO:HD3	1.90	0.53
1:O:270:VAL:HA	1:O:289:SER:H	1.73	0.53
1:O:348:PHE:O	1:O:352:ASN:N	2.37	0.53
2:P:272:ILE:O	2:P:291:SER:N	2.21	0.53
1:G:83:PRO:O	1:G:87:LEU:HG	2.08	0.53
1:E:2:LYS:N	1:E:90:ASP:OD1	2.42	0.53
1:E:135:LYS:C	1:E:331:LYS:HZ1	2.11	0.53
1:E:156:PRO:HB2	1:E:267:LEU:HD22	1.90	0.53
1:E:208:THR:O	1:E:212:LYS:NZ	2.28	0.53
2:F:210:THR:HG22	2:F:231:ALA:HB2	1.90	0.53
1:I:147:ALA:HB3	1:I:152:ASN:HD21	1.73	0.53
1:I:191:ARG:NH2	1:Q:358:CYS:O	2.41	0.53
2:J:163:VAL:HA	2:J:166:GLN:CD	2.29	0.53
1:K:105:ALA:HA	1:K:108:HIS:CD2	2.44	0.53
1:K:162:ASP:OD1	1:K:167:ILE:N	2.41	0.53
1:K:173:THR:HG22	1:K:230:LEU:HD11	1.90	0.53
1:K:182:GLN:HE22	1:K:231:ARG:CZ	2.22	0.53
3:K:402:NAD:H52N	3:K:402:NAD:O5B	2.09	0.53
2:L:246:VAL:HG23	2:L:307:VAL:HB	1.89	0.53
1:C:3:VAL:C	1:C:27:VAL:HA	2.28	0.53
1:C:30:VAL:HB	1:C:73:VAL:HG22	1.89	0.53
1:C:165:LEU:HB3	1:C:248:LYS:HB2	1.89	0.53
1:Q:16:LEU:HD12	1:Q:18(A):TRP:HB3	1.91	0.53
1:Q:179:THR:OG1	1:Q:231:ARG:NH1	2.40	0.53
1:O:172:MET:HA	1:O:241:ASP:O	2.09	0.53
2:P:9:GLY:HA2	2:P:13:ARG:CZ	2.39	0.53
1:G:37:VAL:HA	1:G:40:ALA:HB3	1.90	0.53
2:H:240:SER:N	2:H:313:TYR:O	2.40	0.53
2:F:177:THR:O	2:F:232:LEU:HB2	2.08	0.53
2:F:271:GLY:O	2:F:322:ARG:NH2	2.41	0.53
1:I:192:ASP:OD1	1:I:194:ARG:N	2.41	0.53
1:I:326:ASP:O	1:I:330:ASN:N	2.30	0.53
2:J:289:ASP:OD1	2:J:317:TRP:NE1	2.32	0.53
2:L:104:ARG:HB2	2:L:127:ASP:O	2.08	0.53
2:L:117:LYS:HE3	2:L:145:THR:HA	1.91	0.53
1:A:280:SER:OG	1:A:281:VAL:N	2.42	0.53
2:B:102:VAL:HG22	2:B:124:GLY:HA2	1.91	0.53
2:R:3:VAL:HG13	2:R:93:LEU:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1:LEU:N	2:H:26:PRO:O	2.32	0.53
2:H:153:THR:OG1	2:H:154:THR:N	2.42	0.53
1:E:179:THR:OG1	1:E:181:ASP:HB3	2.09	0.53
1:I:60:ILE:HB	1:I:63:THR:O	2.09	0.53
2:J:19:TRP:HA	2:J:22:ARG:HB2	1.89	0.53
2:J:105:ASP:O	2:J:109:LYS:N	2.28	0.53
1:K:50:LEU:HD22	1:K:285:CYS:SG	2.48	0.53
2:L:180:SER:OG	2:L:181:TYR:O	2.27	0.53
1:C:183:ARG:NH1	1:O:357:GLU:O	2.41	0.53
2:D:205:ILE:HG12	2:D:234:VAL:HA	1.91	0.53
1:Q:77:ARG:HA	3:Q:402:NAD:H62A	1.73	0.53
1:Q:137:TYR:CE2	1:Q:331:LYS:HG3	2.44	0.53
2:R:163:VAL:HA	2:R:166:GLN:HB2	1.89	0.53
1:O:58:LYS:N	1:O:65:SER:O	2.37	0.53
1:O:101:ASP:OD1	1:O:104:GLY:N	2.41	0.53
1:O:252:ALA:O	1:O:255:VAL:N	2.42	0.53
2:P:13:ARG:NH2	2:P:44:LEU:HD13	2.24	0.53
2:P:299:THR:HG22	2:P:310:ILE:N	2.23	0.53
1:G:79:PRO:HB3	1:G:108:HIS:CE1	2.44	0.53
1:E:66:ILE:N	1:E:69:LYS:O	2.22	0.53
1:E:173:THR:H	1:E:240:VAL:HG21	1.74	0.53
1:E:210:ALA:HA	1:E:213:ALA:HB3	1.90	0.53
2:F:4:ALA:HA	2:F:31:VAL:O	2.08	0.53
1:I:124:ASP:OD1	1:I:124:ASP:N	2.41	0.53
1:I:182:GLN:HG3	1:I:195:ARG:HG2	1.91	0.53
2:J:87:GLY:N	2:J:114:GLY:HA3	2.24	0.53
2:J:185:GLN:HE21	2:J:197:ARG:HD3	1.73	0.53
3:K:402:NAD:H2A	1:E:31:ASN:HD22	1.72	0.53
2:L:17:ARG:NH1	2:L:52:GLY:O	2.41	0.53
2:L:315:ASN:N	2:L:315:ASN:OD1	2.40	0.53
1:A:15:PHE:CE1	1:A:321:VAL:HB	2.44	0.53
1:C:57:VAL:HG22	1:C:66:ILE:HG23	1.90	0.53
1:C:80:LEU:HD21	1:C:107:LYS:HB3	1.90	0.53
1:C:137:TYR:CE2	1:C:327:LEU:HG	2.44	0.53
2:D:31:VAL:HG12	2:D:32:ILE:H	1.73	0.53
1:Q:11:ILE:HB	3:Q:402:NAD:PN	2.49	0.53
1:Q:16:LEU:O	1:Q:18(B):HIS:N	2.38	0.53
2:R:3:VAL:HB	2:R:29:VAL:HG22	1.90	0.53
1:O:166:GLY:HA3	1:O:247:GLU:HB3	1.90	0.53
1:G:157:PHE:O	1:G:160:VAL:HG12	2.09	0.53
1:G:172:MET:H	1:G:227:GLY:HA2	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:324:LEU:O	1:G:328:VAL:N	2.28	0.53
2:H:186:ARG:NH2	2:H:191:SER:O	2.41	0.53
2:H:240:SER:OG	2:H:241:VAL:N	2.42	0.53
1:E:146:ASN:O	1:E:317:TYR:OH	2.24	0.53
1:E:256:ASN:HA	1:E:259:PHE:HD2	1.73	0.53
2:F:150:ALA:O	2:F:319:TYR:OH	2.17	0.53
2:F:205:ILE:HG13	2:F:234:VAL:HA	1.90	0.53
1:I:47:ASP:CG	1:I:49:ILE:H	2.11	0.53
1:I:60:ILE:N	1:I:64:PHE:HA	2.23	0.53
1:I:257:ASN:OD1	1:I:260:ARG:NH2	2.41	0.53
1:K:279:VAL:HA	1:K:310:TRP:CH2	2.44	0.53
2:L:15:PHE:O	2:L:19:TRP:N	2.31	0.53
2:L:142:HIS:CE1	2:L:334:TRP:HA	2.43	0.53
2:L:143:ALA:N	2:L:335:GLN:HE22	2.06	0.53
2:B:168:PHE:O	2:B:249:SER:OG	2.24	0.53
1:Q:0:LYS:NZ	1:Q:24:PRO:O	2.35	0.53
2:R:238:ASN:HD22	2:R:239:VAL:H	1.56	0.53
2:R:326:LEU:O	2:R:330:VAL:HG23	2.09	0.53
1:O:10:ARG:N	3:O:401:NAD:O2N	2.41	0.53
1:O:298:MET:HG3	1:O:306:LYS:HD3	1.89	0.53
2:P:269:LEU:O	2:P:273:LEU:N	2.39	0.53
2:P:328:ASP:HA	2:P:331:ALA:HB3	1.90	0.53
1:G:6:ASN:HB3	1:G:94:GLU:HA	1.91	0.53
1:G:15:PHE:CE1	1:G:322:VAL:HG22	2.44	0.53
1:G:170:GLY:N	1:G:224:LYS:O	2.42	0.53
1:G:174:THR:OG1	1:G:238:SER:HB3	2.09	0.53
1:G:204:VAL:N	1:G:231:ARG:O	2.41	0.53
1:E:31:ASN:ND2	1:E:76:ASN:O	2.41	0.53
1:E:91:ILE:HG21	1:E:117:ILE:HG13	1.89	0.53
1:E:281:VAL:HA	1:E:284:ARG:NE	2.24	0.53
1:I:2:LYS:HZ2	1:I:88:GLY:HA3	1.73	0.53
1:I:149:CYS:HB3	1:I:317:TYR:CD2	2.43	0.53
2:J:259:ALA:HA	2:J:262:ARG:HB2	1.91	0.53
1:K:124:ASP:O	1:E:103:PRO:HD3	2.09	0.53
1:K:287:ASP:HB3	1:K:315:TRP:CZ2	2.44	0.53
2:L:6:ASN:OD1	2:L:33:ASN:ND2	2.42	0.53
2:L:32:ILE:CG2	2:L:75:VAL:HB	2.15	0.53
2:L:280:LEU:HB3	2:L:285:PHE:HZ	1.73	0.53
2:L:314:ASP:OD1	2:L:316:GLU:N	2.42	0.53
1:A:115:LYS:HA	1:A:142:ASN:HB2	1.90	0.53
2:B:93:LEU:HD12	2:B:117:LYS:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:104:ARG:HB2	2:D:127:ASP:O	2.09	0.53
2:P:179:HIS:ND1	2:P:180:SER:O	2.41	0.53
1:G:236:ASN:HD21	1:G:314:GLU:H	1.56	0.53
1:G:279:VAL:HA	1:G:310:TRP:CZ2	2.44	0.53
2:H:102:VAL:HG22	2:H:125:LYS:H	1.73	0.53
2:H:322:ARG:NE	2:H:325:ASP:OD2	2.28	0.53
2:F:122:ALA:O	2:F:148:SER:OG	2.20	0.53
2:F:204:ASN:OD1	2:F:204:ASN:N	2.42	0.53
1:I:103:PRO:HA	1:Q:110:GLN:HB3	1.91	0.53
1:I:177:SER:HB3	1:I:234:THR:O	2.09	0.53
1:K:10:ARG:N	3:K:401:NAD:O2A	2.42	0.53
1:A:171:THR:HB	1:A:226:ASN:HB3	1.90	0.53
1:C:16:LEU:HA	1:C:18(A):TRP:HB3	1.91	0.53
1:C:63:THR:OG1	1:C:72:LYS:HG3	2.09	0.53
1:C:82:LEU:HB2	1:C:84:TRP:CZ3	2.44	0.53
1:C:256:ASN:HA	1:C:259:PHE:CD2	2.43	0.53
1:C:276:ILE:H	1:C:276:ILE:HD12	1.73	0.53
2:D:163:VAL:O	2:D:167:LYS:N	2.27	0.53
2:R:3:VAL:HG12	2:R:29:VAL:HG13	1.90	0.53
2:R:8:PHE:HB3	2:R:34:ASP:HB2	1.89	0.53
2:R:162:LYS:HG3	2:R:220:LEU:HD21	1.91	0.53
2:R:306:MET:HB2	2:P:172:LYS:HD2	1.90	0.53
2:P:48:ASP:H	2:P:53:THR:HA	1.74	0.53
1:G:10:ARG:N	3:G:401:NAD:O1N	2.42	0.53
1:G:327:LEU:HA	1:G:330:ASN:HD21	1.74	0.53
1:G:327:LEU:HG	1:G:331:LYS:HG3	1.91	0.53
2:H:92:ASP:HB3	2:H:334:TRP:HH2	1.73	0.53
1:E:17:ARG:NH1	1:E:51:GLY:O	2.21	0.53
1:E:21:LYS:NZ	1:E:21:LYS:H	2.07	0.53
2:F:46:LYS:O	2:F:53:THR:OG1	2.16	0.53
1:I:51:GLY:H	2:J:283:ILE:HD11	1.74	0.52
2:J:108:GLY:O	2:J:112:GLN:N	2.35	0.52
1:K:14:ASN:HD22	1:K:14:ASN:H	1.55	0.52
1:K:194:ARG:HB3	1:K:204:VAL:HG22	1.91	0.52
2:L:5:ILE:HB	2:L:32:ILE:HG12	1.91	0.52
2:D:143:ALA:N	2:D:335:GLN:HE22	2.07	0.52
1:Q:236:ASN:O	1:Q:284:ARG:NH1	2.42	0.52
2:R:1:LEU:HD11	2:R:334:TRP:CE3	2.43	0.52
1:O:246:ILE:HG23	1:O:248:LYS:H	1.73	0.52
2:P:171:ILE:HG13	2:P:249:SER:HA	1.90	0.52
2:P:253:PHE:CE2	2:P:255:GLU:HB3	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:28:VAL:HA	1:G:71:ILE:HG12	1.90	0.52
1:G:29:VAL:HA	1:G:72:LYS:O	2.08	0.52
1:G:85:ALA:N	1:G:112:GLY:HA3	2.23	0.52
1:G:190:HIS:CE1	1:G:192:ASP:H	2.28	0.52
1:G:252:ALA:O	1:G:255:VAL:N	2.42	0.52
2:H:80:ASN:HD21	2:H:82:VAL:HB	1.74	0.52
2:H:178:THR:HG1	2:H:241:VAL:H	1.51	0.52
1:I:139:HIS:HE2	1:I:333:PRO:HD3	1.75	0.52
1:I:357:GLU:HA	1:Q:183:ARG:HE	1.73	0.52
2:J:80:ASN:HD21	2:J:82:VAL:HB	1.73	0.52
2:J:168:PHE:HD2	2:J:250:LYS:HZ1	1.56	0.52
2:J:187:LEU:HD22	1:K:184:LEU:N	2.24	0.52
2:J:192:HIS:ND1	2:J:197:ARG:HB3	2.24	0.52
2:J:314:ASP:OD1	2:J:316:GLU:N	2.43	0.52
1:K:82:LEU:HB2	1:K:84:TRP:CZ3	2.45	0.52
1:K:90:ASP:HB2	1:K:91:ILE:HD12	1.91	0.52
2:L:120:ILE:H	2:L:148:SER:HA	1.75	0.52
1:A:158:VAL:HA	1:A:161:LEU:HD21	1.91	0.52
1:A:191:ARG:HD2	1:A:192:ASP:N	2.24	0.52
2:B:96:GLU:HG2	2:B:98:THR:HG23	1.90	0.52
2:B:104:ARG:NE	2:B:127:ASP:O	2.41	0.52
1:C:52:THR:O	1:C:54:LYS:NZ	2.25	0.52
1:C:84:TRP:HD1	1:C:112:GLY:C	2.12	0.52
1:Q:184:LEU:HB3	2:P:187:LEU:HD22	1.91	0.52
2:R:240:SER:N	2:R:313:TYR:O	2.42	0.52
1:G:67:ASP:OD1	1:G:67:ASP:N	2.39	0.52
1:G:194:ARG:HE	1:E:277:PRO:HB2	1.74	0.52
1:G:324:LEU:HA	1:G:327:LEU:HB3	1.91	0.52
2:H:2:LYS:NZ	2:H:28:ASP:OD2	2.42	0.52
2:H:24:ASP:O	2:H:26:PRO:HD3	2.08	0.52
2:H:35:THR:OG1	2:H:79:ARG:CZ	2.54	0.52
2:H:81:PRO:HA	2:H:84:LEU:HD12	1.91	0.52
2:H:85:PRO:HB2	2:H:88:ASP:OD1	2.09	0.52
2:H:289:ASP:OD1	2:H:317:TRP:NE1	2.41	0.52
1:E:20:ARG:HG3	1:E:322:VAL:HG11	1.90	0.52
1:E:172:MET:HB3	1:E:242:LEU:HA	1.91	0.52
1:I:213:ALA:O	1:I:216:LEU:HB2	2.09	0.52
2:J:10:ARG:O	2:J:14:ASN:N	2.28	0.52
2:J:164:LEU:HA	2:J:168:PHE:CD1	2.44	0.52
2:J:252:THR:N	2:J:304:ASP:HB3	2.24	0.52
1:K:198:ALA:HB1	1:K:201:LEU:HD21	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:33:ASN:O	3:L:401:NAD:H2A	2.09	0.52
2:L:37:GLY:O	2:L:41:ALA:N	2.31	0.52
2:L:240:SER:OG	2:L:241:VAL:N	2.41	0.52
1:A:31:ASN:OD1	1:A:76:ASN:N	2.43	0.52
1:A:64:PHE:O	1:A:70:PRO:HA	2.10	0.52
1:A:184:LEU:HD13	2:D:187:LEU:HD13	1.90	0.52
2:B:206:VAL:HB	2:B:233:ARG:HB2	1.91	0.52
1:C:50:LEU:HD13	1:C:285:CYS:HA	1.91	0.52
1:C:161:LEU:O	1:C:165:LEU:HB2	2.09	0.52
1:C:171:THR:HG1	1:C:172:MET:H	1.58	0.52
1:C:177:SER:O	1:C:231:ARG:NH1	2.26	0.52
2:D:23:LYS:HA	2:D:23:LYS:HZ2	1.75	0.52
2:D:39:LYS:HB2	2:D:43:HIS:CE1	2.44	0.52
2:D:184:ASP:OD2	2:D:233:ARG:NH1	2.42	0.52
2:D:277:ASP:HB3	2:D:297:SER:HB3	1.90	0.52
1:Q:37:VAL:HA	1:Q:40:ALA:HB3	1.90	0.52
2:R:117:LYS:HD3	2:R:145:THR:HA	1.91	0.52
1:O:79:PRO:O	1:O:82:LEU:N	2.32	0.52
2:P:1:LEU:O	2:P:28:ASP:N	2.43	0.52
2:H:136:ASN:ND2	2:H:219:VAL:HG12	2.25	0.52
1:E:126:PRO:HD2	1:E:145:SER:HB3	1.91	0.52
1:E:221:LEU:HA	1:E:224:LYS:HE3	1.90	0.52
1:I:1:LEU:N	1:I:25:LEU:HA	2.23	0.52
1:I:139:HIS:NE2	1:I:333:PRO:HD3	2.23	0.52
1:I:178:TYR:N	1:I:232:VAL:O	2.42	0.52
2:J:93:LEU:HB2	2:J:117:LYS:HB2	1.92	0.52
2:J:217:ALA:C	2:J:224:LYS:HZ3	2.13	0.52
2:J:230:ILE:HG12	2:L:308:LYS:HD3	1.92	0.52
2:J:293:THR:O	2:J:312:TRP:N	2.39	0.52
1:K:3:VAL:C	1:K:27:VAL:HA	2.30	0.52
1:K:60:ILE:HB	1:K:63:THR:O	2.09	0.52
1:K:256:ASN:HB2	1:K:260:ARG:HH21	1.74	0.52
2:B:5:ILE:HG23	2:B:95:ILE:HB	1.91	0.52
2:B:10:ARG:NH1	1:C:186:ASP:O	2.41	0.52
1:Q:77:ARG:HA	3:Q:402:NAD:N6A	2.25	0.52
1:Q:93:ILE:HA	1:Q:117:ILE:HB	1.90	0.52
2:R:46:LYS:O	2:R:54:PHE:N	2.41	0.52
2:R:176:THR:HA	2:R:230:ILE:O	2.09	0.52
2:R:303:GLY:HA3	2:P:172:LYS:HE2	1.92	0.52
1:O:186:ASP:HA	1:O:197:ARG:HA	1.91	0.52
2:P:181:TYR:CD2	2:P:235:PRO:HA	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1:LEU:HB3	1:G:90:ASP:HB2	1.90	0.52
2:H:2:LYS:O	2:H:92:ASP:N	2.26	0.52
2:H:87:GLY:HA2	2:H:114:GLY:HA3	1.92	0.52
1:E:7:GLY:HA2	1:E:31:ASN:HB3	1.91	0.52
1:E:79:PRO:HG3	1:E:108:HIS:CD2	2.44	0.52
1:I:130:VAL:HA	1:I:134:GLU:HG3	1.92	0.52
1:I:291:THR:HB	1:I:310:TRP:O	2.09	0.52
1:K:29:VAL:HA	1:K:72:LYS:O	2.10	0.52
1:K:226:ASN:OD1	1:K:227:GLY:N	2.36	0.52
1:K:319:GLN:OE1	1:K:320:ARG:NH2	2.41	0.52
2:L:258:ASN:O	2:L:262:ARG:N	2.43	0.52
1:A:154:LEU:O	1:A:158:VAL:HB	2.08	0.52
2:B:210:THR:H	2:B:231:ALA:HB2	1.74	0.52
1:Q:50:LEU:HD22	1:Q:285:CYS:SG	2.49	0.52
1:Q:209:GLY:HA2	1:Q:212:LYS:HG3	1.92	0.52
2:R:136:ASN:ND2	2:R:219:VAL:HG12	2.24	0.52
2:R:153:THR:HG21	2:R:210:THR:HG21	1.91	0.52
1:O:108:HIS:HA	1:O:111:ALA:HB3	1.90	0.52
1:O:179:THR:HG23	1:O:231:ARG:HH12	1.75	0.52
2:P:20:HIS:HB3	2:P:54:PHE:HZ	1.74	0.52
1:G:126:PRO:HB2	1:G:128:TYR:CE1	2.44	0.52
1:G:241:ASP:HA	1:G:307:VAL:O	2.10	0.52
1:E:137:TYR:HD2	1:E:331:LYS:HD2	1.74	0.52
2:F:179:HIS:HB3	2:F:233:ARG:HA	1.92	0.52
1:I:107:LYS:HB2	1:I:108:HIS:HD2	1.73	0.52
1:I:255:VAL:O	1:I:259:PHE:N	2.29	0.52
1:K:79:PRO:HG2	1:K:107:LYS:HB2	1.92	0.52
1:K:130:VAL:HA	1:K:134:GLU:HB3	1.90	0.52
1:K:361:TYR:H	1:E:195:ARG:NH2	2.07	0.52
2:L:177:THR:HG23	2:L:231:ALA:HA	1.90	0.52
1:A:170:GLY:HA3	1:A:244:VAL:HG12	1.91	0.52
2:B:153:THR:HG1	2:B:154:THR:H	1.56	0.52
1:C:41:THR:HG21	1:C:59:ILE:HG12	1.90	0.52
1:C:83:PRO:O	1:C:86:GLU:N	2.43	0.52
1:C:207:SER:OG	1:C:208:THR:N	2.42	0.52
1:Q:256:ASN:HA	1:Q:259:PHE:CG	2.44	0.52
2:R:47:TYR:O	1:O:197:ARG:NH2	2.41	0.52
2:R:176:THR:OG1	2:R:243:ASP:O	2.14	0.52
2:R:194:ASP:OD1	2:R:195:LEU:HD12	2.10	0.52
1:O:20:ARG:HD2	1:O:21:LYS:NZ	2.25	0.52
1:G:169:LYS:NZ	1:E:303:ASP:OD2	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:133:VAL:HA	2:H:137:GLU:HB3	1.92	0.52
2:H:326:LEU:O	2:H:330:VAL:HG23	2.09	0.52
1:E:20:ARG:HD2	1:E:21:LYS:NZ	2.25	0.52
1:E:91:ILE:HA	1:E:115:LYS:O	2.10	0.52
2:F:111:LEU:HD21	2:F:118:VAL:HG23	1.92	0.52
2:F:253:PHE:HA	2:F:301:VAL:HG21	1.91	0.52
2:J:57:ASP:O	2:J:69:ASP:N	2.43	0.52
2:J:86:TRP:HD1	2:J:115:ALA:H	1.57	0.52
1:K:23:SER:OG	1:K:25:LEU:O	2.26	0.52
1:K:279:VAL:N	1:K:282:ASP:OD2	2.27	0.52
2:L:80:ASN:ND2	2:L:83:ASN:OD1	2.43	0.52
2:L:273:LEU:HD13	2:L:291:SER:HB2	1.92	0.52
1:A:46:TYR:HA	1:A:52:THR:HA	1.92	0.52
1:A:48:SER:OG	2:D:189:ASP:OD2	2.24	0.52
1:A:183:ARG:O	1:A:199:ALA:N	2.42	0.52
2:B:109:LYS:HA	2:B:112:GLN:HB2	1.92	0.52
2:B:186:ARG:HB2	2:B:197:ARG:O	2.10	0.52
2:D:17:ARG:NH1	2:D:52:GLY:O	2.40	0.52
2:D:171:ILE:N	2:D:247:GLN:O	2.42	0.52
2:D:280:LEU:HB3	2:D:285:PHE:CZ	2.44	0.52
1:Q:276:ILE:H	1:Q:276:ILE:HD12	1.75	0.52
1:Q:279:VAL:HA	1:Q:310:TRP:CZ2	2.45	0.52
1:Q:304:MET:HB2	1:O:169:LYS:HE3	1.90	0.52
2:R:122:ALA:O	2:R:148:SER:OG	2.27	0.52
2:R:152:CYS:SG	3:R:401:NAD:N7N	2.80	0.52
1:O:292:ILE:HA	1:O:309:ALA:HA	1.92	0.52
2:P:119:LEU:HA	2:P:147:ILE:O	2.10	0.52
2:H:31:VAL:CB	2:H:74:LYS:HB2	2.40	0.52
2:H:86:TRP:CD1	2:H:113:ALA:HB3	2.43	0.52
1:E:60(A):ASP:OD1	1:E:61:ASN:ND2	2.42	0.52
2:F:39:LYS:CA	2:F:60:THR:HG21	2.40	0.52
2:F:236:THR:HG23	2:F:238:ASN:H	1.74	0.52
2:J:206:VAL:HB	2:J:233:ARG:HB2	1.92	0.52
1:K:20:ARG:HA	1:K:20:ARG:HH11	1.75	0.52
1:K:137:TYR:CE2	1:K:327:LEU:HG	2.45	0.52
1:K:161:LEU:O	1:K:165:LEU:HB2	2.10	0.52
1:K:253:GLU:CD	1:K:260:ARG:HH22	2.13	0.52
2:L:290:VAL:HA	2:L:322:ARG:HH12	1.74	0.52
1:A:179:THR:N	1:A:182:GLN:OE1	2.41	0.52
1:A:316:GLY:O	1:A:319:GLN:HG2	2.09	0.52
2:B:48:ASP:H	2:B:53:THR:HA	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:108:GLY:O	2:B:112:GLN:N	2.37	0.52
2:B:192:HIS:ND1	2:B:197:ARG:HB3	2.24	0.52
2:B:215:ALA:O	2:B:219:VAL:N	2.32	0.52
1:C:214:VAL:O	1:C:218:LEU:N	2.42	0.52
2:D:172:LYS:HB2	2:D:172:LYS:HZ2	1.75	0.52
1:Q:93:ILE:HG22	1:Q:119:THR:HG22	1.91	0.52
1:Q:119:THR:O	1:Q:146:ASN:ND2	2.43	0.52
1:O:79:PRO:HG3	1:O:108:HIS:NE2	2.24	0.52
1:O:115:LYS:HG3	1:O:332:TRP:CZ3	2.45	0.52
2:P:182:THR:HG23	2:P:185:GLN:NE2	2.23	0.52
1:G:37:VAL:O	1:G:41:THR:N	2.25	0.52
1:G:101:ASP:OD1	1:G:104:GLY:N	2.35	0.52
1:G:139:HIS:HB2	1:G:331:LYS:HB3	1.90	0.52
1:G:280:SER:OG	1:E:202:ASN:OD1	2.28	0.52
2:H:242:VAL:HG22	2:H:311:ALA:N	2.25	0.52
1:E:57:VAL:HG13	1:E:66:ILE:HA	1.92	0.52
1:E:58:LYS:HA	1:E:58:LYS:NZ	2.23	0.52
1:I:45:LYS:O	1:I:52:THR:OG1	2.16	0.52
1:I:153:CYS:O	1:I:156:PRO:HD2	2.09	0.52
1:I:191:ARG:HG3	1:Q:357:GLU:O	2.10	0.52
2:J:167:LYS:N	2:J:167:LYS:HD2	2.24	0.52
2:J:187:LEU:N	1:K:184:LEU:HD22	2.24	0.52
2:J:205:ILE:HG13	2:J:234:VAL:HG12	1.92	0.52
1:K:11:ILE:HB	3:K:401:NAD:H72N	1.75	0.52
2:L:87:GLY:N	2:L:114:GLY:HA3	2.25	0.52
1:A:15:PHE:HD1	1:A:318:SER:HB2	1.75	0.52
1:A:91:ILE:HG21	1:A:117:ILE:HG13	1.92	0.52
2:B:13:ARG:HD3	2:B:44:LEU:HD22	1.90	0.52
2:B:149:ASN:OD1	2:B:150:ALA:N	2.42	0.52
2:B:182:THR:OG1	2:B:185:GLN:N	2.41	0.52
1:C:84:TRP:O	1:C:88:GLY:N	2.43	0.52
1:C:203:ILE:O	1:C:205:PRO:HD3	2.10	0.52
2:D:8:PHE:HB2	2:D:32:ILE:HD12	1.92	0.52
1:Q:157:PHE:O	1:Q:160:VAL:HG12	2.09	0.52
1:Q:179:THR:H	1:Q:182:GLN:NE2	2.08	0.52
1:O:34:GLY:O	1:O:39:SER:OG	2.27	0.52
1:O:203:ILE:HA	1:O:232:VAL:HG12	1.92	0.52
2:P:106:GLY:HA2	2:P:109:LYS:HZ3	1.73	0.52
2:P:119:LEU:HG	2:P:148:SER:HA	1.92	0.52
2:P:140:TYR:CE2	2:P:333:LYS:HD3	2.45	0.52
1:G:209:GLY:HA2	1:G:212:LYS:HG3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:156:CYS:SG	2:H:157:LEU:N	2.83	0.52
1:E:58:LYS:N	1:E:65:SER:O	2.36	0.52
1:E:153:CYS:O	1:E:156:PRO:HD2	2.09	0.52
2:F:50:ILE:HG22	2:F:51:LEU:HD23	1.92	0.52
2:F:239:VAL:HG13	2:F:313:TYR:O	2.09	0.52
2:F:301:VAL:HA	2:F:307:VAL:HG13	1.91	0.52
2:J:210:THR:H	2:J:231:ALA:HB2	1.74	0.52
2:J:320:SER:O	2:J:324:VAL:HG23	2.10	0.52
1:K:258:ALA:HA	1:K:261:LYS:HB3	1.92	0.52
2:L:28:ASP:OD1	2:L:71:LYS:HE3	2.10	0.52
2:L:107:ALA:HB1	2:L:118:VAL:HG11	1.91	0.52
1:A:0:LYS:N	1:A:23:SER:O	2.41	0.52
1:A:195:ARG:HH22	1:G:361:TYR:H	1.58	0.52
2:B:86:TRP:NE1	2:B:113:ALA:HB3	2.24	0.52
2:B:152:CYS:HA	2:B:155:ASN:HD22	1.75	0.52
1:C:5:ILE:O	1:C:30:VAL:HA	2.09	0.52
1:C:157:PHE:CE1	1:C:158:VAL:HG23	2.45	0.52
1:C:326:ASP:O	1:C:330:ASN:N	2.39	0.52
2:D:258:ASN:O	2:D:262:ARG:N	2.42	0.52
1:Q:10:ARG:HH12	1:Q:48:SER:N	2.07	0.52
1:Q:62:GLU:HB2	1:Q:72:LYS:NZ	2.24	0.52
2:R:253:PHE:HA	2:R:301:VAL:HG11	1.90	0.52
1:O:45:LYS:NZ	1:O:53:PHE:O	2.26	0.52
1:O:126:PRO:HD2	1:O:145:SER:HB3	1.92	0.52
2:P:46:LYS:HD3	2:P:58:VAL:HG22	1.92	0.52
1:E:127:THR:HG21	1:E:216:LEU:HB3	1.91	0.52
2:F:47:TYR:HA	2:F:53:THR:HA	1.91	0.52
2:F:166:GLN:OE1	2:F:167:LYS:NZ	2.42	0.52
2:J:319:TYR:O	2:J:323:VAL:HG23	2.09	0.51
1:K:32:ASP:N	1:K:74:VAL:O	2.39	0.51
1:K:157:PHE:CE1	1:K:158:VAL:HG23	2.44	0.51
1:K:167:ILE:HG12	1:K:244:VAL:HG21	1.92	0.51
2:L:119:LEU:HD12	2:L:147:ILE:HB	1.91	0.51
2:L:181:TYR:CE1	2:L:237:PRO:HB3	2.45	0.51
2:L:193:ARG:H	2:L:193:ARG:NE	2.08	0.51
1:A:2:LYS:HB2	1:A:89:ILE:HD13	1.92	0.51
1:A:77:ARG:HB3	3:A:401:NAD:H62A	1.74	0.51
1:A:154:LEU:HD12	1:A:157:PHE:HE2	1.75	0.51
1:A:236:ASN:ND2	1:A:312:ASP:OD2	2.41	0.51
2:B:157:LEU:HA	2:B:160:PHE:CZ	2.45	0.51
2:B:268:GLU:HG3	2:B:269:LEU:HD23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:295:ASP:OD2	2:B:297:SER:OG	2.15	0.51
1:C:126:PRO:HB2	1:C:128:TYR:CE2	2.45	0.51
2:D:41:ALA:HA	2:D:44:LEU:HD12	1.92	0.51
2:D:86:TRP:HE1	2:D:113:ALA:HB3	1.73	0.51
2:D:120:ILE:O	2:D:148:SER:OG	2.19	0.51
2:D:153:THR:O	2:D:157:LEU:N	2.22	0.51
1:Q:202:ASN:CG	1:O:279:VAL:HB	2.30	0.51
2:R:5:ILE:O	2:R:33:ASN:N	2.30	0.51
2:R:168:PHE:HE2	2:R:256:GLU:HG2	1.75	0.51
1:O:80:LEU:HB2	1:O:81:LYS:HZ2	1.76	0.51
1:O:184:LEU:O	1:O:198:ALA:HA	2.10	0.51
1:O:270:VAL:O	1:O:289:SER:N	2.43	0.51
1:G:108:HIS:N	1:G:108:HIS:CD2	2.78	0.51
1:G:319:GLN:HB2	1:G:320:ARG:NH1	2.25	0.51
2:H:171:ILE:HD12	2:H:247:GLN:HG2	1.92	0.51
2:H:176:THR:HA	2:H:230:ILE:O	2.10	0.51
2:F:178:THR:HG1	2:F:241:VAL:H	1.54	0.51
1:I:10:ARG:HA	1:I:13:ARG:HE	1.75	0.51
1:I:81:LYS:HE3	1:I:81:LYS:H	1.74	0.51
1:I:287:ASP:OD1	1:I:315:TRP:NE1	2.43	0.51
1:I:296:LEU:HD11	1:K:194:ARG:HH22	1.75	0.51
2:L:43:HIS:HA	2:L:46:LYS:HB3	1.92	0.51
1:A:31:ASN:HD21	1:A:76:ASN:H	1.58	0.51
2:B:255:GLU:CD	2:B:262:ARG:HH12	2.12	0.51
1:C:169:LYS:HA	1:C:224:LYS:CG	2.39	0.51
1:C:327:LEU:HA	1:C:330:ASN:HB2	1.92	0.51
2:D:131:TYR:OH	2:D:139:GLY:O	2.18	0.51
2:D:132:VAL:O	2:D:136:ASN:N	2.43	0.51
2:D:176:THR:HA	2:D:230:ILE:O	2.11	0.51
1:Q:40:ALA:O	1:Q:44:LEU:N	2.25	0.51
1:O:31:ASN:HD21	1:O:76:ASN:H	1.58	0.51
1:O:41:THR:HG21	1:O:59:ILE:HG12	1.92	0.51
2:P:42:SER:OG	2:P:43:HIS:N	2.42	0.51
2:P:138:GLU:H	2:P:138:GLU:CD	2.14	0.51
2:P:275:VAL:HA	2:P:294:ILE:H	1.75	0.51
2:H:302:MET:N	2:H:306:MET:O	2.29	0.51
2:F:38:VAL:HG11	2:F:64:SER:C	2.30	0.51
3:F:401:NAD:H2N	3:F:401:NAD:H52N	1.91	0.51
1:I:3:VAL:HB	1:I:27:VAL:HA	1.92	0.51
1:I:78:ASP:HB3	1:I:81:LYS:HD2	1.92	0.51
1:I:210:ALA:O	1:I:214:VAL:N	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:10:ARG:NH1	1:K:186:ASP:O	2.42	0.51
2:J:80:ASN:O	2:J:84:LEU:N	2.44	0.51
2:J:92:ASP:HB3	2:J:334:TRP:CH2	2.46	0.51
2:L:48:ASP:OD1	2:L:49:SER:N	2.43	0.51
1:A:8:PHE:CE2	1:A:13:ARG:HA	2.45	0.51
1:A:191:ARG:HD2	1:A:192:ASP:H	1.75	0.51
1:A:270:VAL:HA	1:A:289:SER:HG	1.74	0.51
1:A:296:LEU:HD11	1:C:194:ARG:HH22	1.74	0.51
1:A:323:ASP:O	1:A:327:LEU:N	2.43	0.51
2:B:19:TRP:HA	2:B:22:ARG:HB2	1.92	0.51
1:C:324:LEU:HD13	1:C:327:LEU:HB3	1.90	0.51
2:D:6:ASN:OD1	2:D:7:GLY:N	2.43	0.51
1:Q:121:PRO:HG3	1:Q:148:SER:H	1.76	0.51
1:Q:287:ASP:OD2	1:Q:319:GLN:NE2	2.44	0.51
1:Q:341:SER:O	1:Q:345:LEU:HA	2.11	0.51
2:R:294:ILE:HA	2:R:311:ALA:HB2	1.93	0.51
1:O:281:VAL:O	1:O:284:ARG:HG2	2.11	0.51
1:O:326:ASP:OD1	1:O:326:ASP:N	2.43	0.51
2:P:204:ASN:OD1	2:P:204:ASN:N	2.43	0.51
1:G:148:SER:OG	1:G:150:THR:OG1	2.18	0.51
1:G:272:ASP:N	1:G:290:SER:O	2.38	0.51
1:G:282:ASP:OD1	2:H:47:TYR:CG	2.62	0.51
2:H:142:HIS:CE1	2:H:334:TRP:HA	2.46	0.51
2:H:194:ASP:OD1	2:H:195:LEU:HD12	2.09	0.51
2:H:204:ASN:ND2	2:F:282:SER:OG	2.43	0.51
1:E:64:PHE:O	1:E:70:PRO:HA	2.11	0.51
1:E:80:LEU:HD21	1:E:107:LYS:HB3	1.93	0.51
2:F:208:THR:HG23	2:F:231:ALA:HB3	1.92	0.51
1:I:289:SER:HB3	1:I:320:ARG:HD2	1.92	0.51
2:J:5:ILE:HG23	2:J:95:ILE:HB	1.90	0.51
1:K:11:ILE:HD11	1:K:317:TYR:HB3	1.93	0.51
1:K:272:ASP:HB3	1:K:291:THR:HA	1.93	0.51
2:L:168:PHE:HA	2:L:250:LYS:HD3	1.91	0.51
2:L:186:ARG:CZ	2:L:192:HIS:HB2	2.41	0.51
1:A:46:TYR:HB2	2:D:199:ARG:HH12	1.75	0.51
1:A:178:TYR:CE1	1:A:235:PRO:HA	2.45	0.51
2:B:87:GLY:N	2:B:114:GLY:HA3	2.24	0.51
2:B:142:HIS:CD2	2:B:336:ALA:H	2.27	0.51
2:B:187:LEU:HA	1:C:184:LEU:HD22	1.91	0.51
2:B:283:ILE:HA	2:B:286:ARG:HE	1.75	0.51
1:C:45:LYS:HA	1:C:53:PHE:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:256:ASN:CB	1:C:260:ARG:HH21	2.23	0.51
1:C:263:ALA:HA	1:C:267:LEU:HB2	1.92	0.51
2:D:48:ASP:H	2:D:53:THR:HA	1.75	0.51
2:D:172:LYS:HZ1	2:D:247:GLN:CD	2.14	0.51
1:Q:151:THR:O	1:Q:155:ALA:N	2.28	0.51
1:Q:270:VAL:HG12	1:Q:290:SER:HB3	1.92	0.51
2:R:142:HIS:HB2	2:R:333:LYS:HG3	1.91	0.51
2:R:150:ALA:O	2:R:319:TYR:OH	2.15	0.51
2:R:194:ASP:CG	2:R:197:ARG:H	2.14	0.51
1:O:16:LEU:HD13	1:O:44:LEU:HD13	1.92	0.51
1:O:260:ARG:HG3	1:O:273:VAL:HB	1.91	0.51
2:P:0:LYS:NZ	2:P:1:LEU:HD13	2.25	0.51
2:P:4:ALA:HB2	2:P:31:VAL:HB	1.93	0.51
2:H:2:LYS:HZ2	2:H:30:VAL:CG2	2.23	0.51
2:H:11:ILE:HG12	3:H:401:NAD:PN	2.51	0.51
2:H:168:PHE:HE2	2:H:256:GLU:HG2	1.75	0.51
2:H:283:ILE:HG22	2:F:204:ASN:HD21	1.76	0.51
2:F:30:VAL:O	2:F:74:LYS:NZ	2.30	0.51
2:F:81:PRO:HB2	2:F:109:LYS:HE2	1.92	0.51
1:I:45:LYS:HD3	1:I:57:VAL:HG23	1.93	0.51
1:I:169:LYS:NZ	1:K:301:GLY:HA3	2.25	0.51
1:I:312:ASP:OD2	1:I:314:GLU:N	2.43	0.51
2:J:95:ILE:HA	2:J:119:LEU:O	2.10	0.51
2:L:41:ALA:HA	2:L:44:LEU:HB2	1.91	0.51
1:A:129:VAL:O	1:A:133:ASN:N	2.44	0.51
1:A:237:VAL:HG11	1:A:280:SER:HB2	1.91	0.51
2:B:13:ARG:HG2	2:B:45:LEU:HB2	1.92	0.51
2:B:92:ASP:HB3	2:B:334:TRP:CH2	2.46	0.51
2:B:103:ASP:CG	2:B:106:GLY:H	2.14	0.51
2:B:117:LYS:NZ	2:B:142:HIS:O	2.27	0.51
2:D:0:LYS:HE3	2:D:1:LEU:HD22	1.92	0.51
1:Q:119:THR:O	1:Q:317:TYR:OH	2.29	0.51
1:Q:172:MET:H	1:Q:227:GLY:HA2	1.75	0.51
2:R:178:THR:OG1	2:R:240:SER:OG	2.17	0.51
1:O:239:VAL:HG23	1:O:309:ALA:O	2.10	0.51
2:P:153:THR:O	2:P:157:LEU:HG	2.10	0.51
2:P:252:THR:OG1	2:P:253:PHE:N	2.44	0.51
2:H:320:SER:O	2:H:324:VAL:HG23	2.11	0.51
1:E:204:VAL:O	1:E:230:LEU:HA	2.11	0.51
2:F:22:ARG:HH22	2:F:325:ASP:N	2.09	0.51
2:F:275:VAL:HA	2:F:294:ILE:H	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:328:ASP:HA	2:F:331:ALA:HB3	1.91	0.51
1:I:169:LYS:HZ1	1:K:301:GLY:HA3	1.75	0.51
1:K:96:THR:HA	3:K:401:NAD:C8A	2.41	0.51
1:K:105:ALA:HA	1:K:108:HIS:CG	2.46	0.51
2:L:210:THR:HB	2:L:231:ALA:HB2	1.93	0.51
1:A:236:ASN:H	1:A:284:ARG:HH22	1.58	0.51
1:C:283:PHE:HE2	1:C:310:TRP:CD2	2.28	0.51
2:D:48:ASP:OD1	2:D:49:SER:N	2.44	0.51
2:D:118:VAL:N	2:D:145:THR:O	2.36	0.51
2:D:245:VAL:HG22	2:D:308:LYS:HA	1.92	0.51
1:Q:76:ASN:HB3	1:Q:82:LEU:HD21	1.92	0.51
2:R:175:MET:N	2:R:175:MET:SD	2.84	0.51
2:R:242:VAL:HG22	2:R:311:ALA:N	2.24	0.51
1:O:274:CYS:N	1:O:292:ILE:O	2.43	0.51
1:G:47:ASP:OD2	1:G:50:LEU:N	2.43	0.51
2:H:1:LEU:HD11	2:H:334:TRP:CZ3	2.45	0.51
2:H:178:THR:OG1	2:H:240:SER:OG	2.18	0.51
1:E:57:VAL:HG22	1:E:66:ILE:HA	1.93	0.51
1:E:237:VAL:HA	1:E:312:ASP:HA	1.92	0.51
1:E:281:VAL:O	1:E:284:ARG:HG2	2.10	0.51
2:F:240:SER:OG	2:F:241:VAL:N	2.43	0.51
2:F:259:ALA:HA	2:F:262:ARG:HD2	1.93	0.51
1:I:176:HIS:N	1:I:230:LEU:O	2.44	0.51
1:K:209:GLY:O	1:K:213:ALA:N	2.43	0.51
2:L:129:PRO:HD2	2:L:147:ILE:HA	1.92	0.51
2:L:140:TYR:O	2:L:333:LYS:NZ	2.32	0.51
1:A:1:LEU:H	1:A:25:LEU:HA	1.75	0.51
1:A:60:ILE:HD11	1:A:65:SER:HB2	1.92	0.51
1:A:126:PRO:HD3	1:G:103:PRO:HG3	1.92	0.51
1:A:151:THR:HG22	1:A:214:VAL:HG23	1.93	0.51
2:B:167:LYS:N	2:B:167:LYS:HD2	2.26	0.51
2:B:179:HIS:CE1	2:B:233:ARG:HD3	2.46	0.51
2:B:217:ALA:C	2:B:224:LYS:HZ3	2.13	0.51
3:B:401:NAD:H8A	3:B:401:NAD:H51A	1.91	0.51
1:C:50:LEU:HD22	1:C:285:CYS:SG	2.51	0.51
1:C:162:ASP:HB2	1:C:167:ILE:HD12	1.92	0.51
2:D:58:VAL:HA	2:D:69:ASP:H	1.76	0.51
2:R:30:VAL:HA	2:R:73:ILE:HG12	1.92	0.51
2:R:142:HIS:ND1	2:R:330:VAL:O	2.44	0.51
1:O:208:THR:O	1:O:212:LYS:NZ	2.34	0.51
1:O:232:VAL:HB	1:O:233:PRO:HD2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:267:LEU:HD13	1:O:271:LEU:HD22	1.91	0.51
1:G:13:ARG:HH21	1:G:47:ASP:HA	1.75	0.51
2:H:78:ASP:OD1	2:H:79:ARG:N	2.43	0.51
2:H:162:LYS:HG3	2:H:220:LEU:HD21	1.92	0.51
2:H:210:THR:HG22	2:H:231:ALA:HB2	1.92	0.51
2:H:251:LYS:NZ	2:H:303:GLY:O	2.39	0.51
2:F:10:ARG:HD2	2:F:13:ARG:NH1	2.25	0.51
2:F:284:ASP:N	2:F:284:ASP:OD1	2.42	0.51
1:I:14:ASN:O	1:I:18:CYS:N	2.29	0.51
1:I:240:VAL:HG13	1:I:311:TYR:CE1	2.46	0.51
2:J:204:ASN:HD22	2:L:282:SER:H	1.57	0.51
1:K:280:SER:O	1:K:283:PHE:N	2.44	0.51
2:L:46:LYS:HA	2:L:58:VAL:HG21	1.93	0.51
2:L:95:ILE:HG23	2:L:120:ILE:HA	1.92	0.51
1:A:116:VAL:O	1:A:144:ILE:N	2.32	0.51
1:A:254:ASP:HA	1:A:257:ASN:HD22	1.76	0.51
2:B:282:SER:OG	2:B:286:ARG:NH2	2.42	0.51
1:C:0:LYS:HZ2	1:C:1:LEU:HD13	1.76	0.51
1:Q:157:PHE:CE1	1:Q:292:ILE:HG12	2.46	0.51
2:R:171:ILE:HD12	2:R:247:GLN:HG2	1.93	0.51
2:R:192:HIS:HB3	2:R:198:ALA:CA	2.40	0.51
1:O:253:GLU:O	1:O:257:ASN:ND2	2.43	0.51
1:O:298:MET:O	1:O:306:LYS:N	2.44	0.51
2:P:327:ALA:O	2:P:331:ALA:N	2.32	0.51
1:G:344:PRO:O	1:G:347:ASP:N	2.31	0.51
2:H:68:VAL:HG13	2:H:73:ILE:HG13	1.92	0.51
1:E:241:ASP:HB2	1:E:307:VAL:O	2.10	0.51
2:F:38:VAL:HG23	2:F:39:LYS:H	1.76	0.51
2:F:335:GLN:OE1	2:F:336:ALA:N	2.44	0.51
1:I:121:PRO:O	1:I:122(A):LYS:N	2.41	0.51
2:J:239:VAL:HG22	2:J:314:ASP:HA	1.92	0.51
1:K:362:GLU:OXT	3:K:402:NAD:O2D	2.28	0.51
2:L:132:VAL:O	2:L:136:ASN:N	2.42	0.51
1:A:165:LEU:HD23	1:A:248:LYS:HZ3	1.76	0.51
1:C:203:ILE:HG23	1:C:230:LEU:HB3	1.93	0.51
2:D:33:ASN:HA	2:D:76:VAL:HG23	1.92	0.51
1:Q:94:GLU:OE2	1:Q:97:GLY:N	2.44	0.51
1:Q:305:VAL:HG12	1:Q:307:VAL:HG22	1.93	0.51
1:Q:324:LEU:HD12	1:Q:327:LEU:HB3	1.92	0.51
1:O:12:GLY:O	1:O:16:LEU:HB2	2.11	0.51
1:O:58:LYS:HA	1:O:58:LYS:NZ	2.21	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:90:ASP:HB2	1:O:91:ILE:HD12	1.93	0.51
1:O:193:LEU:O	1:O:197:ARG:HG2	2.11	0.51
2:P:161:VAL:HA	2:P:164:LEU:HD12	1.91	0.51
1:G:206:THR:O	1:G:229:ALA:N	2.41	0.51
1:E:101:ASP:OD1	1:E:104:GLY:N	2.42	0.51
1:E:303:ASP:N	1:E:303:ASP:OD1	2.41	0.51
2:F:81:PRO:O	2:F:110:HIS:ND1	2.34	0.51
2:F:105:ASP:O	2:F:109:LYS:N	2.35	0.51
2:F:211:GLY:HA2	2:F:214:LYS:HD2	1.92	0.51
1:I:172:MET:HA	1:I:242:LEU:HA	1.93	0.51
1:I:194:ARG:HH22	1:K:310:TRP:HZ2	1.59	0.51
2:J:54:PHE:CZ	2:J:56:ALA:HB3	2.46	0.51
2:J:142:HIS:HE1	2:J:330:VAL:O	1.94	0.51
2:J:154:THR:HG21	2:J:215:ALA:HB3	1.93	0.51
2:J:195:LEU:HD13	2:L:279:PRO:HG3	1.93	0.51
1:K:108:HIS:ND1	1:K:108:HIS:N	2.59	0.51
2:L:31:VAL:HG12	2:L:32:ILE:H	1.76	0.51
1:A:94:GLU:HB3	1:A:119:THR:H	1.76	0.51
1:A:103:PRO:HA	1:G:110:GLN:HB3	1.93	0.51
1:C:114:LYS:HB2	1:C:332:TRP:CH2	2.46	0.51
1:C:209:GLY:O	1:C:213:ALA:N	2.44	0.51
2:D:240:SER:OG	2:D:241:VAL:N	2.43	0.51
1:Q:173:THR:O	1:Q:240:VAL:HA	2.11	0.51
1:Q:190:HIS:HB3	1:Q:196:ALA:HB2	1.93	0.51
2:R:187:LEU:HD22	1:O:184:LEU:HA	1.92	0.51
1:O:18:CYS:HB3	1:O:20:ARG:HE	1.75	0.51
1:O:139:HIS:CE1	1:O:332:TRP:HD1	2.29	0.51
1:O:182:GLN:HE22	1:O:231:ARG:CZ	2.23	0.51
2:P:80:ASN:HB3	2:P:83:ASN:HB3	1.92	0.51
2:P:142:HIS:CD2	2:P:336:ALA:H	2.23	0.51
2:H:93:LEU:HA	2:H:117:LYS:O	2.10	0.51
1:E:253:GLU:O	1:E:257:ASN:ND2	2.44	0.51
2:F:39:LYS:HA	2:F:60:THR:CG2	2.42	0.51
2:F:76:VAL:HG11	2:F:85:PRO:HD2	1.92	0.51
2:F:138:GLU:H	2:F:138:GLU:CD	2.13	0.51
2:F:196:ARG:HH11	2:F:206:VAL:HA	1.76	0.51
2:F:283:ILE:HA	2:F:286:ARG:HE	1.76	0.51
2:F:292:SER:HB2	2:F:313:TYR:HA	1.92	0.51
1:I:12:GLY:HA2	1:I:15:PHE:HB3	1.93	0.50
1:I:269:GLY:O	1:I:289:SER:OG	2.22	0.50
1:A:7:GLY:N	1:A:31:ASN:HB3	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:281:VAL:H	1:C:202:ASN:ND2	2.09	0.50
2:B:38:VAL:HG23	2:B:39:LYS:H	1.76	0.50
2:B:196:ARG:CZ	2:D:280:LEU:H	2.24	0.50
1:C:293:ASP:O	1:C:297:THR:OG1	2.27	0.50
2:D:5:ILE:HB	2:D:32:ILE:HG12	1.93	0.50
1:Q:2:LYS:HB2	1:Q:90:ASP:H	1.76	0.50
1:Q:85:ALA:N	1:Q:112:GLY:HA3	2.27	0.50
1:Q:314:GLU:HG2	3:Q:402:NAD:H72N	1.76	0.50
1:O:10:ARG:CZ	1:O:14:ASN:HD21	2.23	0.50
1:O:165:LEU:HD22	1:O:255:VAL:HG21	1.93	0.50
2:H:38:VAL:HG12	2:H:75:VAL:HG13	1.91	0.50
1:I:31:ASN:OD1	1:I:76:ASN:N	2.44	0.50
1:K:161:LEU:HD13	1:K:242:LEU:HD23	1.93	0.50
2:L:39:LYS:HE2	2:L:40:GLN:HG3	1.93	0.50
1:A:157:PHE:HB2	1:A:259:PHE:CE1	2.46	0.50
2:B:295:ASP:N	2:B:310:ILE:O	2.28	0.50
1:C:10:ARG:HA	1:C:13:ARG:HD3	1.92	0.50
1:C:240:VAL:HG22	1:C:309:ALA:HB3	1.92	0.50
2:D:80:ASN:ND2	2:D:83:ASN:OD1	2.44	0.50
2:D:152:CYS:SG	2:D:153:THR:N	2.84	0.50
1:Q:252:ALA:O	1:Q:256:ASN:N	2.36	0.50
1:Q:292:ILE:HG23	1:Q:308:VAL:O	2.11	0.50
1:Q:319:GLN:HB2	1:Q:320:ARG:NH1	2.26	0.50
2:H:177:THR:HG1	2:H:313:TYR:HH	1.53	0.50
1:E:161:LEU:O	1:E:165:LEU:N	2.34	0.50
2:F:43:HIS:HB3	2:F:47:TYR:HD2	1.76	0.50
2:F:76:VAL:HG21	2:F:84:LEU:HB3	1.93	0.50
2:F:96:GLU:HB3	2:F:120:ILE:HD12	1.92	0.50
2:F:205:ILE:HD11	2:F:232:LEU:HB3	1.93	0.50
2:J:131:TYR:HD2	2:J:147:ILE:HD12	1.77	0.50
2:J:295:ASP:N	2:J:310:ILE:O	2.27	0.50
2:L:0:LYS:HE3	2:L:1:LEU:HD22	1.93	0.50
1:A:20:ARG:HA	1:A:21:LYS:HZ3	1.77	0.50
2:B:239:VAL:HG13	2:B:313:TYR:C	2.32	0.50
1:C:57:VAL:HA	1:C:66:ILE:HA	1.93	0.50
1:C:195:ARG:NE	1:O:361:TYR:HA	2.27	0.50
1:C:253:GLU:CD	1:C:257:ASN:HD21	2.14	0.50
2:D:127:ASP:OD1	2:D:127:ASP:N	2.42	0.50
2:R:91:ILE:O	2:R:116:LYS:N	2.44	0.50
2:R:153:THR:OG1	2:R:154:THR:N	2.44	0.50
2:R:177:THR:OG1	2:R:313:TYR:OH	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:4:ALA:HB3	1:O:92:VAL:HG22	1.94	0.50
1:O:83:PRO:HA	1:O:111:ALA:O	2.11	0.50
1:O:139:HIS:CE1	1:O:332:TRP:HA	2.46	0.50
1:O:281:VAL:HA	1:O:284:ARG:NE	2.26	0.50
1:O:343:ASP:C	1:O:345:LEU:H	2.15	0.50
1:G:16:LEU:O	1:G:18(B):HIS:N	2.39	0.50
2:H:194:ASP:CG	2:H:197:ARG:H	2.14	0.50
2:H:294:ILE:HA	2:H:311:ALA:HB2	1.93	0.50
1:E:99:PHE:HE1	1:E:107:LYS:HZ3	1.58	0.50
1:E:156:PRO:O	1:E:160:VAL:N	2.34	0.50
2:J:18:CYS:SG	2:J:320:SER:OG	2.68	0.50
2:J:30:VAL:HA	2:J:73:ILE:HG12	1.93	0.50
2:J:239:VAL:HG13	2:J:313:TYR:C	2.31	0.50
1:K:84:TRP:HD1	1:K:112:GLY:C	2.14	0.50
2:L:222:ASN:O	2:L:226:LYS:NZ	2.23	0.50
1:A:45:LYS:HD3	1:A:57:VAL:HG23	1.93	0.50
1:A:153:CYS:C	1:A:156:PRO:HD2	2.31	0.50
2:B:11:ILE:HG13	3:B:401:NAD:H71N	1.75	0.50
2:B:11:ILE:HG12	3:B:401:NAD:PN	2.52	0.50
2:B:293:THR:O	2:B:312:TRP:N	2.43	0.50
1:C:253:GLU:CD	1:C:260:ARG:HH22	2.13	0.50
2:D:1:LEU:O	2:D:3:VAL:HG23	2.12	0.50
2:D:81:PRO:HB3	2:D:110:HIS:CE1	2.46	0.50
2:D:87:GLY:N	2:D:114:GLY:HA3	2.26	0.50
2:D:180:SER:OG	2:D:181:TYR:O	2.30	0.50
2:D:280:LEU:HB3	2:D:285:PHE:HZ	1.76	0.50
1:Q:178:TYR:H	1:Q:234:THR:N	2.08	0.50
1:Q:179:THR:H	1:Q:182:GLN:HE22	1.59	0.50
2:R:261:PHE:O	2:R:264:SER:OG	2.29	0.50
2:P:9:GLY:HA3	3:P:401:NAD:O3	2.11	0.50
2:P:192:HIS:CE1	2:P:197:ARG:HD2	2.47	0.50
1:G:221:LEU:HA	1:G:224:LYS:HZ1	1.76	0.50
2:H:218:LEU:H	2:H:218:LEU:HD12	1.77	0.50
2:F:119:LEU:HA	2:F:147:ILE:O	2.12	0.50
2:J:95:ILE:HG23	2:J:120:ILE:HA	1.93	0.50
1:K:203:ILE:O	1:K:205:PRO:HD3	2.11	0.50
1:K:210:ALA:HA	1:K:213:ALA:HB3	1.93	0.50
2:L:192:HIS:CE1	2:L:197:ARG:HD2	2.47	0.50
1:A:31:ASN:ND2	1:A:76:ASN:H	2.09	0.50
1:A:79:PRO:HG2	1:A:108:HIS:CD2	2.46	0.50
1:A:228:ILE:H	1:C:306:LYS:NZ	2.08	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:343:ASP:O	2:F:39:LYS:NZ	2.44	0.50
2:B:179:HIS:ND1	2:B:180:SER:O	2.41	0.50
1:C:10:ARG:NH2	1:C:47:ASP:OD2	2.45	0.50
1:C:240:VAL:O	1:C:308:VAL:HA	2.11	0.50
2:D:95:ILE:HG23	2:D:120:ILE:HA	1.93	0.50
1:O:5:ILE:HA	1:O:93:ILE:H	1.77	0.50
1:O:86:GLU:HG2	1:O:87:LEU:N	2.27	0.50
1:O:121:PRO:HG3	1:O:148:SER:H	1.75	0.50
1:O:134:GLU:HB2	1:O:327:LEU:HD13	1.93	0.50
1:O:220:GLN:H	1:O:220:GLN:CD	2.14	0.50
2:P:241:VAL:HG13	2:P:311:ALA:C	2.32	0.50
2:P:283:ILE:HA	2:P:286:ARG:HE	1.77	0.50
1:G:61:ASN:ND2	1:G:62:GLU:OE2	2.45	0.50
1:G:238:SER:HB2	1:G:311:TYR:CE2	2.46	0.50
2:H:261:PHE:O	2:H:264:SER:OG	2.29	0.50
1:E:349:CYS:O	1:E:352:ASN:N	2.44	0.50
2:F:179:HIS:ND1	2:F:180:SER:O	2.45	0.50
2:F:269:LEU:HB3	2:F:273:LEU:HB2	1.93	0.50
1:I:279:VAL:H	1:I:282:ASP:CG	2.15	0.50
1:K:161:LEU:HA	1:K:165:LEU:HD13	1.94	0.50
1:K:203:ILE:HA	1:K:231:ARG:O	2.12	0.50
1:K:253:GLU:O	1:K:260:ARG:NH2	2.45	0.50
1:K:253:GLU:CD	1:K:257:ASN:HD21	2.15	0.50
2:L:28:ASP:OD2	2:L:71:LYS:HE2	2.07	0.50
2:L:175:MET:O	2:L:176:THR:OG1	2.30	0.50
2:L:178:THR:OG1	2:L:241:VAL:O	2.28	0.50
1:A:84:TRP:HA	1:A:87:LEU:HB2	1.93	0.50
1:A:105:ALA:HB3	1:A:143:ILE:HD13	1.94	0.50
1:A:154:LEU:HD23	1:A:214:VAL:HG21	1.94	0.50
1:A:186:ASP:HB2	2:D:10:ARG:NH1	2.26	0.50
1:A:283:PHE:HE2	1:A:310:TRP:CD2	2.30	0.50
2:B:277:ASP:OD1	2:B:296:SER:N	2.43	0.50
2:B:298:LEU:HB2	2:B:310:ILE:HG13	1.94	0.50
2:D:299:THR:HG22	2:D:309:VAL:HA	1.93	0.50
1:Q:11:ILE:HA	1:Q:14:ASN:CB	2.40	0.50
1:Q:108:HIS:HA	1:Q:111:ALA:HB3	1.92	0.50
2:P:152:CYS:SG	2:P:153:THR:N	2.85	0.50
2:P:177:THR:O	2:P:232:LEU:HB2	2.11	0.50
2:H:86:TRP:HD1	2:H:113:ALA:C	2.15	0.50
1:E:18:CYS:HB3	1:E:20:ARG:HE	1.76	0.50
1:E:31:ASN:OD1	1:E:76:ASN:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:56:ASP:OD2	1:E:58:LYS:HD2	2.11	0.50
1:E:57:VAL:O	1:E:58:LYS:NZ	2.43	0.50
1:E:79:PRO:HD3	1:E:99:PHE:CZ	2.46	0.50
1:E:126:PRO:HB2	1:E:145:SER:H	1.77	0.50
2:F:59:LYS:HB2	2:F:59:LYS:HZ3	1.76	0.50
1:I:254:ASP:HA	1:I:257:ASN:HD22	1.76	0.50
2:J:195:LEU:HD22	2:L:279:PRO:HG2	1.94	0.50
2:J:332:ASN:O	2:J:333:LYS:HG2	2.12	0.50
1:K:99:PHE:HB3	1:K:104:GLY:HA3	1.94	0.50
2:L:18:CYS:CB	2:L:324:VAL:HG21	2.42	0.50
2:B:46:LYS:NZ	2:B:54:PHE:O	2.30	0.50
2:B:186:ARG:HE	2:B:190:ALA:HB3	1.77	0.50
1:C:90:ASP:HA	1:C:114:LYS:NZ	2.27	0.50
2:D:119:LEU:HA	2:D:147:ILE:O	2.12	0.50
2:D:137:GLU:OE1	2:D:137:GLU:N	2.44	0.50
2:D:323:VAL:O	2:D:327:ALA:N	2.40	0.50
2:R:16:LEU:HD22	2:R:45:LEU:HD11	1.93	0.50
2:R:318:GLY:O	2:R:321:GLN:HB2	2.11	0.50
1:O:7:GLY:HA3	3:O:401:NAD:N3A	2.27	0.50
1:O:139(A):ASP:N	1:O:139(A):ASP:OD1	2.45	0.50
2:P:10:ARG:H	2:P:10:ARG:NH1	2.08	0.50
2:P:284:ASP:N	2:P:284:ASP:OD1	2.42	0.50
1:G:292:ILE:HG23	1:G:308:VAL:O	2.12	0.50
2:H:269:LEU:HB3	2:H:273:LEU:HB2	1.94	0.50
1:E:220:GLN:CD	1:E:220:GLN:H	2.15	0.50
2:F:2:LYS:HZ2	2:F:2:LYS:H	1.60	0.50
2:F:98:THR:HB	3:F:401:NAD:C8A	2.41	0.50
1:I:46:TYR:HA	1:I:52:THR:HA	1.93	0.50
2:J:157:LEU:HA	2:J:160:PHE:CZ	2.46	0.50
2:J:268:GLU:HG3	2:J:269:LEU:HD23	1.94	0.50
1:K:11:ILE:HG23	1:K:318:SER:HB3	1.94	0.50
1:K:115:LYS:HA	1:K:142:ASN:O	2.11	0.50
2:L:6:ASN:OD1	2:L:7:GLY:N	2.44	0.50
2:L:39:LYS:NZ	2:L:40:GLN:H	1.97	0.50
2:L:119:LEU:HA	2:L:147:ILE:O	2.11	0.50
1:C:37:VAL:HG13	1:C:41:THR:OG1	2.12	0.50
1:C:178:TYR:N	1:C:232:VAL:O	2.45	0.50
1:C:280:SER:O	1:C:283:PHE:N	2.45	0.50
1:C:319:GLN:OE1	1:C:320:ARG:NH2	2.44	0.50
2:D:104:ARG:HD3	2:D:146:ILE:HG21	1.94	0.50
2:D:273:LEU:HD13	2:D:291:SER:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:1:LEU:HB3	1:Q:91:ILE:HD11	1.94	0.50
1:Q:180:GLY:HA2	2:P:187:LEU:HD11	1.93	0.50
1:Q:293:ASP:OD1	1:Q:296:LEU:N	2.31	0.50
1:O:10:ARG:HG2	1:O:13:ARG:HH21	1.76	0.50
2:P:281:VAL:N	2:P:284:ASP:OD2	2.34	0.50
1:G:157:PHE:O	1:G:161:LEU:HG	2.12	0.50
1:G:287:ASP:HB3	1:G:319:GLN:HG3	1.93	0.50
2:F:107:ALA:HB1	2:F:118:VAL:HG21	1.93	0.50
2:F:209:SER:OG	2:F:214:LYS:NZ	2.45	0.50
1:I:84:TRP:O	1:I:89:ILE:N	2.32	0.50
1:I:126:PRO:HG2	1:I:128:TYR:CE2	2.47	0.50
2:J:38:VAL:HG23	2:J:39:LYS:H	1.76	0.50
2:J:118:VAL:HB	2:J:146:ILE:HG12	1.92	0.50
1:K:5:ILE:HG13	1:K:27:VAL:HG11	1.94	0.50
1:K:83:PRO:HD2	1:K:86:GLU:OE1	2.12	0.50
1:K:263:ALA:HA	1:K:267:LEU:HB2	1.94	0.50
2:L:34:ASP:N	2:L:76:VAL:O	2.40	0.50
2:L:176:THR:HG23	2:L:230:ILE:HG12	1.93	0.50
2:L:181:TYR:HD2	2:L:235:PRO:HA	1.76	0.50
1:A:3:VAL:O	1:A:28:VAL:N	2.43	0.50
1:A:28:VAL:O	1:A:72:LYS:N	2.34	0.50
1:A:43:LEU:HD23	2:D:199:ARG:HD3	1.94	0.50
1:A:273:VAL:HG13	1:A:292:ILE:HD12	1.94	0.50
2:B:27:LEU:HB3	2:B:29:VAL:HG13	1.94	0.50
2:B:161:VAL:HA	2:B:164:LEU:HB2	1.94	0.50
2:B:178:THR:N	2:B:241:VAL:O	2.29	0.50
2:D:273:LEU:HD13	2:D:292:SER:N	2.27	0.50
1:Q:2:LYS:O	1:Q:90:ASP:N	2.44	0.50
1:Q:31:ASN:ND2	1:Q:76:ASN:O	2.45	0.50
1:Q:128:TYR:H	1:Q:145:SER:HG	1.59	0.50
1:Q:168:VAL:HB	1:Q:245:ASN:CG	2.32	0.50
1:O:84:TRP:N	1:O:111:ALA:O	2.45	0.50
1:O:316:GLY:O	1:O:320:ARG:NH1	2.45	0.50
2:P:208:THR:HG23	2:P:231:ALA:HB3	1.93	0.50
1:G:60(A):ASP:OD2	1:G:63:THR:OG1	2.24	0.50
2:H:44:LEU:HD23	1:E:197:ARG:NH2	2.27	0.50
2:H:98:THR:HG21	2:H:101:PHE:CE2	2.46	0.50
2:H:119:LEU:HA	2:H:147:ILE:O	2.12	0.50
2:H:318:GLY:HA2	2:H:321:GLN:HB2	1.93	0.50
1:E:91:ILE:HG13	1:E:332:TRP:HZ3	1.77	0.50
1:E:115:LYS:HG3	1:E:332:TRP:CE3	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:140:TYR:CE2	2:F:333:LYS:HD3	2.46	0.50
1:I:108:HIS:HA	1:I:111:ALA:HB3	1.93	0.49
2:J:202:CYS:SG	1:K:178:TYR:OH	2.67	0.49
2:L:1:LEU:O	2:L:3:VAL:HG23	2.12	0.49
2:L:31:VAL:HG21	2:L:89:MET:HE3	1.94	0.49
1:A:147:ALA:HB3	1:A:152:ASN:HD21	1.76	0.49
1:A:304:MET:SD	1:C:170:GLY:HA2	2.52	0.49
1:A:361:TYR:H	1:G:195:ARG:HE	1.60	0.49
1:C:83:PRO:HD2	1:C:86:GLU:OE1	2.12	0.49
1:C:332:TRP:O	1:C:334:GLY:N	2.45	0.49
2:D:107:ALA:HB1	2:D:118:VAL:HG11	1.93	0.49
1:Q:76:ASN:OD1	1:Q:78:ASP:N	2.44	0.49
2:R:98:THR:HB	3:R:401:NAD:C5A	2.42	0.49
2:R:131:TYR:N	2:R:148:SER:O	2.35	0.49
2:P:259:ALA:HA	2:P:262:ARG:HD2	1.93	0.49
1:G:94:GLU:OE2	1:G:97:GLY:N	2.45	0.49
2:H:326:LEU:HA	2:H:329:ILE:HD12	1.93	0.49
1:E:79:PRO:HG3	1:E:108:HIS:NE2	2.27	0.49
2:F:175:MET:HA	2:F:244:LEU:HB2	1.94	0.49
2:F:224:LYS:O	2:F:226:LYS:NZ	2.45	0.49
1:I:194:ARG:HH11	1:I:204:VAL:HG22	1.76	0.49
1:I:270:VAL:HA	1:I:289:SER:HG	1.76	0.49
1:K:275:ASP:HA	1:K:294:SER:HG	1.77	0.49
2:L:81:PRO:HB3	2:L:110:HIS:CE1	2.47	0.49
2:L:211:GLY:O	2:L:215:ALA:N	2.23	0.49
2:B:46:LYS:HB2	2:B:58:VAL:CG2	2.40	0.49
2:B:183:GLY:N	1:C:185:LEU:HD11	2.28	0.49
2:B:319:TYR:O	2:B:323:VAL:HG23	2.12	0.49
1:C:92:VAL:HG12	1:C:116:VAL:HG13	1.94	0.49
1:C:175:THR:HG23	1:C:239:VAL:H	1.75	0.49
1:C:210:ALA:HA	1:C:213:ALA:HB3	1.94	0.49
2:D:168:PHE:HA	2:D:250:LYS:HD3	1.94	0.49
1:Q:43:LEU:HD23	2:P:199:ARG:NH1	2.28	0.49
2:R:223:LEU:HD23	2:R:227:LEU:HG	1.93	0.49
2:P:2:LYS:HA	2:P:28:ASP:O	2.12	0.49
1:G:6:ASN:HD22	1:G:94:GLU:HA	1.77	0.49
1:G:43:LEU:HD23	2:F:199:ARG:NH1	2.27	0.49
1:G:58:LYS:N	1:G:65:SER:O	2.45	0.49
1:G:319:GLN:HB2	1:G:320:ARG:HH12	1.76	0.49
2:H:137:GLU:HB2	2:H:326:LEU:HD13	1.94	0.49
2:H:275:VAL:HA	2:H:294:ILE:N	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:82:LEU:HD12	1:E:84:TRP:HH2	1.77	0.49
2:F:48:ASP:H	2:F:53:THR:HA	1.77	0.49
1:I:7:GLY:N	1:I:31:ASN:HB3	2.27	0.49
1:I:8:PHE:CZ	1:I:13:ARG:HA	2.48	0.49
1:I:9:GLY:O	1:I:13:ARG:N	2.37	0.49
1:I:169:LYS:HE2	1:K:304:MET:SD	2.52	0.49
2:J:8:PHE:CD1	2:J:32:ILE:HG21	2.47	0.49
2:J:33:ASN:HD21	2:J:84:LEU:HD13	1.77	0.49
2:J:131:TYR:CE2	2:J:140:TYR:HA	2.47	0.49
1:K:207:SER:OG	1:K:227:GLY:O	2.20	0.49
2:L:180:SER:HA	2:L:234:VAL:HG22	1.93	0.49
1:A:151:THR:HA	1:A:154:LEU:HB3	1.94	0.49
1:A:228:ILE:HG12	1:A:229:ALA:N	2.26	0.49
1:A:277:PRO:HB2	1:C:193:LEU:HD11	1.93	0.49
2:B:142:HIS:HE1	2:B:330:VAL:O	1.94	0.49
1:C:182:GLN:HE22	1:C:231:ARG:NE	2.10	0.49
1:C:183:ARG:HB3	1:C:185:LEU:O	2.12	0.49
1:C:236:ASN:OD1	1:C:314:GLU:N	2.45	0.49
1:Q:21:LYS:H	1:Q:21:LYS:HE2	1.77	0.49
1:Q:306:LYS:NZ	1:O:227:GLY:HA2	2.21	0.49
2:R:8:PHE:HB2	2:R:32:ILE:HD12	1.93	0.49
2:R:93:LEU:HA	2:R:117:LYS:O	2.13	0.49
2:R:152:CYS:HB3	2:R:319:TYR:CD2	2.48	0.49
1:O:171:THR:OG1	1:O:172:MET:O	2.30	0.49
1:O:255:VAL:O	1:O:259:PHE:N	2.44	0.49
2:P:175:MET:HA	2:P:244:LEU:HB2	1.94	0.49
2:P:294:ILE:HG23	2:P:311:ALA:HB2	1.92	0.49
1:G:159:LYS:O	1:G:163:GLU:HB3	2.13	0.49
2:H:44:LEU:HA	1:E:197:ARG:NH1	2.27	0.49
2:H:148:SER:OG	2:H:149:ASN:O	2.31	0.49
2:F:8:PHE:CZ	2:F:13:ARG:HA	2.47	0.49
2:F:60:THR:HA	2:F:66:ILE:HA	1.94	0.49
1:I:109:ILE:HD11	1:I:116:VAL:HG23	1.93	0.49
1:I:127:THR:OG1	1:I:145:SER:O	2.24	0.49
2:J:152:CYS:HA	2:J:155:ASN:HD22	1.78	0.49
2:J:280:LEU:O	2:L:196:ARG:NH1	2.45	0.49
1:K:190:HIS:NE2	1:K:192:ASP:HB3	2.28	0.49
1:K:238:SER:N	1:K:313:ASN:OD1	2.45	0.49
1:K:256:ASN:CB	1:K:260:ARG:HH21	2.25	0.49
2:L:219:VAL:HG23	2:L:220:LEU:HG	1.94	0.49
2:L:245:VAL:HA	2:L:307:VAL:O	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:184:LEU:HG	1:A:185:LEU:HG	1.94	0.49
2:B:104:ARG:HD3	2:B:146:ILE:HG21	1.93	0.49
2:B:187:LEU:HG	1:C:180:GLY:HA2	1.94	0.49
1:C:291:THR:O	1:C:310:TRP:N	2.45	0.49
1:Q:89:ILE:HG21	1:Q:92:VAL:HG22	1.93	0.49
2:R:97:GLY:O	3:R:401:NAD:H52A	2.13	0.49
2:R:148:SER:OG	2:R:149:ASN:O	2.31	0.49
2:R:192:HIS:CE1	2:R:194:ASP:H	2.30	0.49
2:R:210:THR:O	2:R:214:LYS:NZ	2.35	0.49
1:O:94:GLU:N	1:O:117:ILE:O	2.37	0.49
2:P:13:ARG:NH2	2:P:34:ASP:OD2	2.43	0.49
2:P:104:ARG:NH1	2:P:146:ILE:HB	2.27	0.49
1:G:21:LYS:H	1:G:21:LYS:HE2	1.78	0.49
1:G:237:VAL:HG11	1:G:310:TRP:HE3	1.77	0.49
2:H:0:LYS:H2	2:H:28:ASP:HB2	1.77	0.49
2:H:15:PHE:CG	2:H:324:VAL:HG22	2.46	0.49
1:E:259:PHE:HA	1:E:262:ALA:HB3	1.93	0.49
2:F:2:LYS:NZ	2:F:2:LYS:H	2.11	0.49
2:F:2:LYS:HA	2:F:28:ASP:O	2.12	0.49
2:F:38:VAL:CG1	2:F:64:SER:O	2.60	0.49
2:F:222:ASN:HD22	2:F:223:LEU:HD12	1.77	0.49
1:I:0:LYS:HD3	1:I:23:SER:O	2.12	0.49
1:I:180:GLY:N	2:L:188:LEU:HD22	2.28	0.49
1:I:314:GLU:O	1:I:317:TYR:HB3	2.13	0.49
2:J:189:ASP:HB2	1:K:13:ARG:HH12	1.78	0.49
2:J:203:LEU:HD23	2:L:236:THR:HA	1.95	0.49
2:J:298:LEU:HB2	2:J:310:ILE:HG13	1.94	0.49
1:K:276:ILE:H	1:K:276:ILE:HD12	1.77	0.49
2:L:30:VAL:HA	2:L:73:ILE:HG23	1.93	0.49
2:L:289:ASP:OD1	2:L:317:TRP:NE1	2.44	0.49
1:A:89:ILE:O	1:A:114:LYS:NZ	2.43	0.49
1:A:303:ASP:OD1	1:A:303:ASP:N	2.45	0.49
1:A:303:ASP:OD1	1:C:169:LYS:NZ	2.34	0.49
2:B:2:LYS:HE3	2:B:89:MET:HB3	1.95	0.49
2:D:8:PHE:O	2:D:13:ARG:NH1	2.45	0.49
2:D:104:ARG:H	2:D:127:ASP:CG	2.15	0.49
2:D:104:ARG:NH1	2:D:129:PRO:HD3	2.28	0.49
2:D:138:GLU:OE1	2:D:138:GLU:N	2.31	0.49
1:Q:37:VAL:O	1:Q:41:THR:N	2.26	0.49
1:Q:100:VAL:HB	1:Q:122(A):LYS:H	1.77	0.49
1:Q:316:GLY:HA2	1:Q:319:GLN:HG2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:327:LEU:HD11	1:Q:331:LYS:HE3	1.93	0.49
1:O:193:LEU:HD12	1:O:194:ARG:H	1.77	0.49
2:P:215:ALA:HA	2:P:218:LEU:HB2	1.94	0.49
2:H:192:HIS:CE1	2:H:194:ASP:H	2.30	0.49
1:E:239:VAL:HG23	1:E:309:ALA:O	2.12	0.49
2:F:45:LEU:O	2:F:54:PHE:HB2	2.12	0.49
2:F:253:PHE:CE2	2:F:255:GLU:HB3	2.47	0.49
2:F:305:ASP:OD1	2:F:306:MET:N	2.45	0.49
1:I:25:LEU:H	1:I:25:LEU:HD22	1.78	0.49
1:I:64:PHE:O	1:I:70:PRO:HA	2.12	0.49
1:I:80:LEU:HD23	1:I:110:GLN:HB3	1.95	0.49
2:J:38:VAL:HG22	1:E:343:ASP:O	2.12	0.49
2:J:132:VAL:H	2:J:136:ASN:HB2	1.78	0.49
2:J:191:SER:O	2:J:193:ARG:NH1	2.45	0.49
2:J:281:VAL:HG23	2:J:283:ILE:HG22	1.94	0.49
2:J:315:ASN:N	2:J:316:GLU:OE2	2.39	0.49
1:K:30:VAL:C	1:K:74:VAL:HG23	2.33	0.49
2:L:105:ASP:O	2:L:109:LYS:N	2.26	0.49
2:L:239:VAL:HG13	2:L:313:TYR:C	2.32	0.49
1:A:118:ILE:N	1:A:144:ILE:O	2.36	0.49
1:A:139:HIS:NE2	1:A:332:TRP:HA	2.28	0.49
2:B:181:TYR:N	2:B:236:THR:O	2.41	0.49
1:C:129:VAL:H	1:C:133:ASN:ND2	2.10	0.49
1:C:161:LEU:HD13	1:C:242:LEU:HD23	1.93	0.49
2:D:289:ASP:OD1	2:D:317:TRP:NE1	2.42	0.49
1:Q:101:ASP:OD1	1:Q:104:GLY:N	2.37	0.49
2:R:283:ILE:HG23	2:R:284:ASP:OD1	2.12	0.49
3:R:401:NAD:O1A	3:R:401:NAD:O3D	2.26	0.49
1:O:90:ASP:HA	1:O:114:LYS:CG	2.41	0.49
1:O:192:ASP:HB3	1:O:195:ARG:HB2	1.95	0.49
3:O:401:NAD:H52N	3:O:401:NAD:PA	2.52	0.49
2:P:164:LEU:HB3	2:P:170:ILE:HD11	1.94	0.49
2:P:274:SER:O	2:P:293:THR:HA	2.13	0.49
1:G:214:VAL:HB	1:G:225:LEU:HD22	1.95	0.49
2:H:4:ALA:O	2:H:94:VAL:HA	2.11	0.49
2:H:131:TYR:HA	2:H:136:ASN:HB2	1.94	0.49
2:F:10:ARG:N	3:F:401:NAD:O1N	2.40	0.49
2:F:160:PHE:HB2	2:F:261:PHE:CE2	2.36	0.49
2:J:109:LYS:HA	2:J:112:GLN:HB2	1.94	0.49
2:J:196:ARG:CZ	2:L:279:PRO:HA	2.42	0.49
2:L:31:VAL:HG12	2:L:75:VAL:CA	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:91:ILE:HG12	1:A:115:LYS:HB2	1.94	0.49
1:A:341:SER:O	2:F:77:SER:HB2	2.12	0.49
2:B:39:LYS:HG2	2:B:40:GLN:N	2.27	0.49
2:B:205:ILE:HG13	2:B:234:VAL:HG12	1.95	0.49
1:C:29:VAL:HA	1:C:72:LYS:O	2.13	0.49
1:C:47:ASP:H	1:C:52:THR:HA	1.76	0.49
1:C:87:LEU:HB2	1:C:89:ILE:HG12	1.93	0.49
2:D:253:PHE:CZ	2:D:255:GLU:HB3	2.47	0.49
1:Q:14:ASN:HB3	1:Q:318:SER:HB3	1.94	0.49
1:Q:190:HIS:CG	1:Q:192:ASP:H	2.31	0.49
1:Q:252:ALA:O	1:Q:255:VAL:N	2.45	0.49
2:R:218:LEU:HD12	2:R:218:LEU:H	1.78	0.49
1:O:214:VAL:HG23	1:O:225:LEU:HD13	1.93	0.49
2:P:17:ARG:CZ	2:P:54:PHE:HA	2.42	0.49
2:P:46:LYS:CD	2:P:58:VAL:HG22	2.42	0.49
2:P:85:PRO:HB2	2:P:88:ASP:OD1	2.12	0.49
2:P:97:GLY:C	3:P:401:NAD:H52A	2.33	0.49
2:P:196:ARG:HH11	2:P:206:VAL:HA	1.77	0.49
1:G:6:ASN:ND2	1:G:94:GLU:OE2	2.45	0.49
1:G:149:CYS:HA	1:G:152:ASN:ND2	2.27	0.49
2:H:96:GLU:HG2	2:H:98:THR:HG23	1.94	0.49
2:H:223:LEU:HD23	2:H:227:LEU:HG	1.95	0.49
1:I:260:ARG:HG3	1:I:273:VAL:HB	1.94	0.49
2:J:177:THR:HA	2:J:242:VAL:HA	1.94	0.49
1:K:17:ARG:NH1	1:K:45:LYS:O	2.46	0.49
1:K:259:PHE:HB3	1:K:271:LEU:HD21	1.95	0.49
2:L:2:LYS:NZ	2:L:89:MET:O	2.35	0.49
2:L:104:ARG:H	2:L:127:ASP:CG	2.16	0.49
2:L:104:ARG:NH1	2:L:129:PRO:HD3	2.28	0.49
2:L:277:ASP:OD1	2:L:296:SER:OG	2.21	0.49
1:A:47:ASP:H	1:A:52:THR:HA	1.78	0.49
1:A:184:LEU:HD23	2:D:183:GLY:HA2	1.94	0.49
1:A:279:VAL:HG12	1:A:310:TRP:CZ2	2.48	0.49
1:C:32:ASP:OD1	1:C:36:GLY:N	2.46	0.49
2:D:65:ALA:HA	2:D:74:LYS:HA	1.94	0.49
1:Q:17:ARG:CZ	1:Q:53:PHE:HA	2.43	0.49
1:Q:194:ARG:NH1	1:O:277:PRO:O	2.45	0.49
1:Q:270:VAL:HA	1:Q:289:SER:N	2.26	0.49
2:R:4:ALA:HA	2:R:31:VAL:O	2.13	0.49
2:R:67:SER:CB	2:R:72:VAL:HG13	2.43	0.49
2:R:213:ALA:HB3	2:R:214:LYS:HZ1	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:326:LEU:HA	2:R:329:ILE:HD12	1.95	0.49
1:O:261:LYS:HZ3	1:O:262:ALA:HB2	1.77	0.49
1:O:278:LEU:HB3	1:O:282:ASP:HB2	1.95	0.49
2:P:238:ASN:OD1	2:P:286:ARG:NH1	2.46	0.49
2:P:271:GLY:O	2:P:322:ARG:NH2	2.45	0.49
2:P:305:ASP:OD1	2:P:306:MET:N	2.46	0.49
1:G:0:LYS:HB2	1:G:1:LEU:HD12	1.95	0.49
1:G:126:PRO:HB2	1:G:128:TYR:CZ	2.47	0.49
1:G:154:LEU:HG	1:G:158:VAL:HB	1.93	0.49
2:H:192:HIS:HB3	2:H:198:ALA:CA	2.42	0.49
2:J:172:LYS:HB2	2:L:306:MET:SD	2.52	0.49
2:J:274:SER:OG	2:J:290:VAL:HG21	2.13	0.49
1:K:133:ASN:N	1:K:134:GLU:OE1	2.46	0.49
2:L:54:PHE:C	2:L:56:ALA:H	2.16	0.49
2:L:253:PHE:CZ	2:L:255:GLU:HB3	2.48	0.49
1:A:272:ASP:O	1:A:290:SER:OG	2.30	0.49
2:B:95:ILE:HA	2:B:119:LEU:O	2.11	0.49
2:B:195:LEU:HD12	2:B:195:LEU:H	1.76	0.49
2:B:308:LYS:NZ	2:D:176:THR:HG23	2.27	0.49
1:C:30:VAL:C	1:C:74:VAL:HG23	2.33	0.49
1:Q:79:PRO:HB3	1:Q:108:HIS:CE1	2.48	0.49
2:R:208:THR:O	2:R:230:ILE:HB	2.12	0.49
2:P:17:ARG:HG2	2:P:54:PHE:CD1	2.47	0.49
2:P:96:GLU:HB3	2:P:120:ILE:HD12	1.94	0.49
2:P:209:SER:OG	2:P:214:LYS:NZ	2.45	0.49
1:G:29:VAL:HG22	1:G:74:VAL:HG22	1.95	0.49
1:G:173:THR:O	1:G:240:VAL:HA	2.12	0.49
1:G:264:ALA:O	1:G:268:LYS:NZ	2.39	0.49
2:H:98:THR:HB	3:H:401:NAD:C8A	2.43	0.49
2:H:121:THR:O	2:H:319:TYR:OH	2.30	0.49
2:H:196:ARG:HB3	2:H:206:VAL:HG22	1.95	0.49
1:E:15:PHE:CE1	1:E:322:VAL:HG22	2.48	0.49
1:E:177:SER:HB3	1:E:234:THR:O	2.11	0.49
1:E:236:ASN:ND2	1:E:314:GLU:HB3	2.28	0.49
1:E:270:VAL:HA	1:E:289:SER:H	1.78	0.49
2:F:1:LEU:N	2:F:28:ASP:H	2.10	0.49
2:F:10:ARG:NH1	2:F:13:ARG:HH11	2.09	0.49
2:F:58:VAL:HB	2:F:68:VAL:HB	1.95	0.49
2:F:94:VAL:O	2:F:118:VAL:HA	2.13	0.49
2:F:104:ARG:NH1	2:F:146:ILE:HB	2.28	0.49
2:F:272:ILE:O	2:F:291:SER:N	2.22	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:82:LEU:HB2	1:I:84:TRP:CZ2	2.48	0.49
1:K:76:ASN:HB3	1:K:82:LEU:HD11	1.94	0.49
1:K:92:VAL:HG11	1:K:108:HIS:HD2	1.78	0.49
1:K:238:SER:HB2	1:K:311:TYR:CE2	2.48	0.49
2:L:104:ARG:HD3	2:L:146:ILE:HG21	1.95	0.49
2:L:172:LYS:HB2	2:L:172:LYS:HZ2	1.77	0.49
2:L:185:GLN:NE2	2:L:233:ARG:HH11	2.11	0.49
2:L:253:PHE:O	2:L:256:GLU:HB3	2.13	0.49
2:L:266:ASP:O	2:L:270:LYS:HB2	2.12	0.49
1:A:85:ALA:N	1:A:112:GLY:HA3	2.28	0.49
1:A:231:ARG:HH22	1:G:362:GLU:HA	1.77	0.49
2:B:10:ARG:HA	2:B:13:ARG:HB2	1.95	0.49
2:B:95:ILE:HG23	2:B:120:ILE:HA	1.95	0.49
2:B:252:THR:N	2:B:304:ASP:HB3	2.28	0.49
1:C:16:LEU:HD21	1:C:66:ILE:HG21	1.94	0.49
1:C:84:TRP:HE1	1:C:108:HIS:C	2.16	0.49
2:D:1:LEU:HB2	2:D:27:LEU:HA	1.95	0.49
2:D:163:VAL:HA	2:D:166:GLN:HB2	1.95	0.49
2:D:193:ARG:H	2:D:193:ARG:CZ	2.26	0.49
2:D:266:ASP:O	2:D:270:LYS:HB2	2.12	0.49
1:Q:28:VAL:C	1:Q:71:ILE:HG23	2.33	0.49
1:Q:291:THR:HB	1:Q:310:TRP:HB2	1.94	0.49
2:R:17:ARG:NH2	2:R:53:THR:O	2.45	0.49
1:O:238:SER:HB2	1:O:311:TYR:CZ	2.47	0.49
2:H:0:LYS:HD2	2:H:1:LEU:HD12	1.94	0.49
2:H:2:LYS:HE3	2:H:89:MET:HB3	1.94	0.49
1:E:16:LEU:HD13	1:E:44:LEU:HD13	1.95	0.49
2:F:55:ASP:OD1	2:F:55:ASP:N	2.46	0.49
1:I:46:TYR:HB2	2:L:199:ARG:NH1	2.27	0.48
2:J:196:ARG:CZ	2:L:280:LEU:H	2.26	0.48
2:J:246:VAL:O	2:J:307:VAL:N	2.46	0.48
1:K:32:ASP:CG	1:K:40:ALA:HB2	2.32	0.48
1:A:74:VAL:HG21	1:A:84:TRP:CH2	2.47	0.48
1:A:96:THR:OG1	1:A:98:VAL:N	2.46	0.48
2:B:176:THR:HA	2:B:230:ILE:O	2.13	0.48
2:B:192:HIS:CE1	2:B:194:ASP:HB3	2.48	0.48
2:B:238:ASN:HD21	2:B:286:ARG:HG2	1.78	0.48
1:C:66:ILE:N	1:C:69:LYS:O	2.45	0.48
1:C:94:GLU:HG3	1:C:99:PHE:HB2	1.95	0.48
1:C:171:THR:O	1:C:242:LEU:HD12	2.13	0.48
1:C:283:PHE:HE2	1:C:310:TRP:CE2	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:173:GLY:O	2:D:228:ASN:N	2.38	0.48
1:Q:287:ASP:OD1	1:Q:315:TRP:NE1	2.43	0.48
1:Q:324:LEU:HG	1:Q:328:VAL:HB	1.95	0.48
2:R:67:SER:HA	2:R:72:VAL:CG1	2.43	0.48
2:R:119:LEU:HA	2:R:147:ILE:O	2.12	0.48
2:R:121:THR:O	2:R:319:TYR:OH	2.30	0.48
2:R:131:TYR:CD2	2:R:147:ILE:HG21	2.48	0.48
1:O:15:PHE:CE1	1:O:322:VAL:HG22	2.47	0.48
1:O:178:TYR:CE1	1:O:235:PRO:HA	2.48	0.48
2:P:152:CYS:O	2:P:155:ASN:ND2	2.45	0.48
2:P:253:PHE:HA	2:P:301:VAL:HG11	1.94	0.48
1:G:62:GLU:HB2	1:G:72:LYS:NZ	2.26	0.48
1:G:177:SER:HB3	1:G:234:THR:O	2.13	0.48
1:G:256:ASN:O	1:G:259:PHE:HB2	2.13	0.48
2:H:15:PHE:CD2	2:H:324:VAL:HG22	2.47	0.48
2:H:31:VAL:HG23	2:H:74:LYS:CG	2.39	0.48
2:H:44:LEU:O	2:H:44:LEU:HD22	2.13	0.48
2:H:46:LYS:HE2	2:H:57:ASP:CB	2.41	0.48
2:H:175:MET:N	2:H:175:MET:SD	2.84	0.48
2:H:203:LEU:HD22	2:F:236:THR:HA	1.95	0.48
1:E:6:ASN:ND2	1:E:96:THR:OG1	2.38	0.48
1:E:320:ARG:NH2	1:E:323:ASP:OD2	2.44	0.48
2:F:257:VAL:HA	2:F:260:ALA:HB3	1.94	0.48
1:I:20:ARG:HA	1:I:21:LYS:HZ3	1.78	0.48
1:I:199:ALA:O	1:I:201:LEU:N	2.45	0.48
1:I:239:VAL:HA	1:I:309:ALA:O	2.13	0.48
2:J:42:SER:O	2:J:46:LYS:N	2.22	0.48
2:J:181:TYR:N	2:J:234:VAL:O	2.46	0.48
2:J:238:ASN:HD22	2:J:282:SER:HB2	1.77	0.48
2:J:255:GLU:CD	2:J:262:ARG:HH12	2.14	0.48
2:J:274:SER:N	2:J:292:SER:O	2.46	0.48
1:K:90:ASP:HA	1:K:114:LYS:HZ3	1.77	0.48
1:K:256:ASN:HA	1:K:259:PHE:CD2	2.47	0.48
2:L:11:ILE:HG12	3:L:401:NAD:O5D	2.13	0.48
2:L:140:TYR:OH	2:L:332:ASN:O	2.08	0.48
2:L:179:HIS:O	2:L:234:VAL:HG13	2.12	0.48
1:A:221:LEU:HD12	1:A:225:LEU:HD21	1.94	0.48
2:B:172:LYS:HB2	2:D:306:MET:SD	2.53	0.48
2:B:176:THR:O	2:B:243:ASP:N	2.45	0.48
2:D:142:HIS:H	2:D:333:LYS:CE	2.26	0.48
2:D:185:GLN:NE2	2:D:233:ARG:HH11	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:208:THR:HG21	2:D:233:ARG:HG3	1.93	0.48
2:D:314:ASP:OD1	2:D:317:TRP:N	2.46	0.48
1:Q:117:ILE:HA	1:Q:144:ILE:HG12	1.93	0.48
1:Q:253:GLU:O	1:Q:260:ARG:NH1	2.45	0.48
2:R:178:THR:HG1	2:R:241:VAL:H	1.54	0.48
2:R:275:VAL:HA	2:R:294:ILE:N	2.26	0.48
2:R:289:ASP:OD1	2:R:289:ASP:N	2.44	0.48
1:O:56:ASP:OD2	1:O:58:LYS:HD2	2.14	0.48
2:P:59:LYS:HA	2:P:59:LYS:HZ2	1.77	0.48
2:P:222:ASN:HD22	2:P:223:LEU:HD12	1.78	0.48
1:G:60(A):ASP:O	1:G:63:THR:N	2.46	0.48
1:G:282:ASP:OD1	2:H:47:TYR:CD2	2.66	0.48
2:F:46:LYS:HA	2:F:58:VAL:CG1	2.43	0.48
2:F:140:TYR:CE1	2:F:142:HIS:HA	2.48	0.48
2:F:175:MET:HB3	2:F:244:LEU:HB2	1.95	0.48
1:I:25:LEU:HD11	1:I:326:ASP:HA	1.94	0.48
1:I:228:ILE:H	1:K:306:LYS:NZ	2.11	0.48
2:J:16:LEU:HD22	2:J:45:LEU:HD11	1.94	0.48
1:K:114:LYS:HB2	1:K:332:TRP:HH2	1.78	0.48
2:L:3:VAL:HA	2:L:91:ILE:HG23	1.94	0.48
1:A:74:VAL:HG11	1:A:82:LEU:HB3	1.96	0.48
1:A:204:VAL:O	1:A:230:LEU:HA	2.13	0.48
2:B:131:TYR:CE2	2:B:140:TYR:HA	2.48	0.48
2:B:281:VAL:HA	2:B:312:TRP:CH2	2.48	0.48
2:B:289:ASP:HB3	2:B:321:GLN:HG3	1.95	0.48
1:C:60:ILE:HB	1:C:64:PHE:HA	1.95	0.48
2:D:10:ARG:HB3	2:D:10:ARG:CZ	2.43	0.48
1:Q:24:PRO:HD2	1:Q:25:LEU:HD13	1.95	0.48
1:Q:197:ARG:NH2	2:P:47:TYR:HB3	2.28	0.48
1:Q:324:LEU:HA	1:Q:327:LEU:HB3	1.95	0.48
2:R:30:VAL:O	2:R:74:LYS:HE3	2.13	0.48
2:R:131:TYR:CZ	2:R:140:TYR:HA	2.48	0.48
2:R:140:TYR:CE1	2:R:330:VAL:HG22	2.49	0.48
1:O:176:HIS:HB3	1:O:231:ARG:CD	2.42	0.48
1:O:211:ALA:HB3	1:O:212:LYS:NZ	2.28	0.48
1:O:298:MET:HG3	1:O:306:LYS:HB2	1.94	0.48
2:P:105:ASP:O	2:P:109:LYS:N	2.32	0.48
2:P:157:LEU:HA	2:P:160:PHE:CE1	2.47	0.48
1:G:28:VAL:C	1:G:71:ILE:HG23	2.33	0.48
1:G:150:THR:HG1	1:G:151:THR:H	1.62	0.48
1:E:150:THR:OG1	1:E:176:HIS:NE2	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:172:MET:HB3	1:E:242:LEU:CA	2.43	0.48
2:F:142:HIS:CE1	2:F:334:TRP:HA	2.48	0.48
2:F:300:MET:N	2:F:308:LYS:HB3	2.28	0.48
1:K:42:HIS:O	1:K:46:TYR:N	2.28	0.48
2:L:1:LEU:HB2	2:L:27:LEU:HA	1.95	0.48
2:L:89:MET:N	2:L:89:MET:SD	2.86	0.48
2:L:163:VAL:HA	2:L:166:GLN:HB2	1.96	0.48
1:A:118:ILE:HG22	1:A:120:ALA:H	1.78	0.48
1:C:173:THR:HA	1:C:228:ILE:O	2.14	0.48
1:C:241:ASP:HA	1:C:307:VAL:O	2.13	0.48
2:D:22:ARG:HE	2:D:321:GLN:NE2	2.10	0.48
2:D:104:ARG:NH2	2:D:129:PRO:HD3	2.29	0.48
2:D:130:THR:HG21	2:D:218:LEU:HB3	1.94	0.48
1:Q:154:LEU:HG	1:Q:158:VAL:HB	1.95	0.48
1:Q:272:ASP:HB2	1:Q:288:PHE:CD1	2.48	0.48
2:R:10:ARG:O	2:R:14:ASN:N	2.36	0.48
2:R:42:SER:OG	2:R:43:HIS:N	2.47	0.48
2:R:138:GLU:CD	2:R:138:GLU:H	2.16	0.48
2:R:289:ASP:OD2	2:R:321:GLN:NE2	2.46	0.48
1:O:76:ASN:CG	1:O:78:ASP:H	2.17	0.48
1:O:236:ASN:ND2	1:O:314:GLU:HB3	2.28	0.48
2:P:81:PRO:HB3	2:P:110:HIS:CE1	2.48	0.48
2:P:140:TYR:CE1	2:P:142:HIS:HA	2.48	0.48
2:P:151:SER:HG	2:P:154:THR:H	1.61	0.48
1:G:11:ILE:HB	3:G:401:NAD:O5D	2.13	0.48
1:G:30:VAL:C	1:G:74:VAL:HG23	2.34	0.48
2:H:155:ASN:HD21	2:H:322:ARG:HB2	1.78	0.48
2:H:208:THR:O	2:H:230:ILE:HB	2.13	0.48
2:H:321:GLN:O	2:H:325:ASP:N	2.44	0.48
1:E:159:LYS:HB2	1:E:218:LEU:HG	1.96	0.48
1:E:237:VAL:HG11	1:E:280:SER:HB2	1.95	0.48
1:E:308:VAL:HG12	1:E:310:TRP:HE1	1.76	0.48
2:F:194:ASP:HB3	2:F:197:ARG:HB2	1.95	0.48
2:F:274:SER:O	2:F:293:THR:HA	2.13	0.48
1:I:77:ARG:HA	3:Q:401:NAD:N1A	2.29	0.48
1:I:132:VAL:HA	1:I:159:LYS:HE3	1.94	0.48
1:I:259:PHE:HB3	1:I:273:VAL:HG21	1.95	0.48
2:J:59:LYS:HZ2	2:J:61:ALA:HB2	1.78	0.48
2:J:220:LEU:HB3	2:J:223:LEU:HD13	1.95	0.48
2:L:86:TRP:NE1	2:L:113:ALA:HB3	2.29	0.48
1:A:108:HIS:N	1:A:108:HIS:HD2	2.10	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:292:ILE:HG12	1:A:309:ALA:CB	2.43	0.48
2:B:38:VAL:HG22	1:O:344:PRO:O	2.13	0.48
2:B:220:LEU:HB3	2:B:223:LEU:HD13	1.96	0.48
1:C:203:ILE:HG12	1:C:232:VAL:HG12	1.95	0.48
2:D:10:ARG:H	2:D:10:ARG:HD2	1.78	0.48
2:D:295:ASP:O	2:D:299:THR:HG23	2.13	0.48
1:Q:3:VAL:HG13	1:Q:91:ILE:HG13	1.95	0.48
1:Q:179:THR:H	1:Q:182:GLN:CD	2.17	0.48
1:Q:319:GLN:HB2	1:Q:320:ARG:HH12	1.79	0.48
1:O:281:VAL:HG11	2:P:49:SER:HA	1.94	0.48
2:P:32:ILE:HB	2:P:75:VAL:HA	1.95	0.48
2:P:292:SER:HB2	2:P:313:TYR:HA	1.96	0.48
2:P:320:SER:OG	2:P:321:GLN:N	2.47	0.48
1:G:261:LYS:O	1:G:265:GLY:N	2.46	0.48
1:G:275:ASP:OD2	1:G:294:SER:OG	2.15	0.48
2:H:59:LYS:HB3	2:H:59:LYS:HZ1	1.77	0.48
2:F:140:TYR:OH	2:F:142:HIS:ND1	2.44	0.48
2:F:192:HIS:CE1	2:F:197:ARG:HD2	2.48	0.48
2:F:328:ASP:O	2:F:332:ASN:N	2.35	0.48
1:I:139:HIS:CD2	1:I:333:PRO:HD3	2.49	0.48
1:I:186:ASP:O	2:L:10:ARG:NH1	2.47	0.48
1:I:295:SER:OG	1:I:296:LEU:N	2.47	0.48
1:I:324:LEU:HG	1:I:327:LEU:HD22	1.96	0.48
1:K:84:TRP:NE1	1:K:108:HIS:O	2.41	0.48
1:K:85:ALA:N	1:K:112:GLY:HA3	2.29	0.48
2:L:9:GLY:O	2:L:13:ARG:HD2	2.13	0.48
2:L:82:VAL:HG22	2:L:109:LYS:HD2	1.96	0.48
1:A:54:LYS:H	1:A:54:LYS:HD2	1.78	0.48
1:A:62:GLU:HG3	1:A:63:THR:OG1	2.13	0.48
1:A:91:ILE:HG23	1:A:115:LYS:C	2.34	0.48
2:B:163:VAL:HA	2:B:166:GLN:CD	2.33	0.48
2:B:204:ASN:HD22	2:D:282:SER:H	1.60	0.48
2:B:246:VAL:O	2:B:307:VAL:N	2.47	0.48
1:C:169:LYS:HE3	1:C:245:ASN:HD21	1.78	0.48
1:C:215:SER:HB3	1:C:225:LEU:HD11	1.95	0.48
2:D:64:SER:HB3	2:D:74:LYS:NZ	2.29	0.48
1:Q:174:THR:OG1	1:Q:238:SER:HB3	2.13	0.48
2:R:84:LEU:HB3	2:R:86:TRP:CZ2	2.48	0.48
2:R:239:VAL:HG13	2:R:313:TYR:O	2.13	0.48
1:O:139:HIS:ND1	1:O:332:TRP:HA	2.27	0.48
1:O:303:ASP:OD1	1:O:303:ASP:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:269:LEU:HB3	2:P:273:LEU:HB2	1.94	0.48
1:G:114:LYS:O	1:G:115:LYS:HG2	2.13	0.48
2:H:6:ASN:N	2:H:95:ILE:O	2.47	0.48
2:H:239:VAL:HG13	2:H:313:TYR:O	2.13	0.48
2:H:289:ASP:OD1	2:H:289:ASP:N	2.45	0.48
1:E:20:ARG:CZ	1:E:322:VAL:HG21	2.43	0.48
1:E:115:LYS:HG2	1:E:142:ASN:ND2	2.28	0.48
1:E:278:LEU:HB3	1:E:282:ASP:HB2	1.96	0.48
2:F:292:SER:OG	2:F:311:ALA:HB1	2.13	0.48
1:I:230:LEU:O	1:I:232:VAL:HG13	2.13	0.48
2:J:46:LYS:NZ	2:J:54:PHE:O	2.33	0.48
2:J:103:ASP:CG	2:J:106:GLY:H	2.17	0.48
1:K:11:ILE:HG12	1:K:318:SER:HB3	1.95	0.48
2:L:176:THR:N	2:L:243:ASP:O	2.47	0.48
1:A:9:GLY:HA3	3:A:401:NAD:O2N	2.13	0.48
1:A:85:ALA:C	1:A:88:GLY:H	2.17	0.48
1:A:171:THR:OG1	1:A:172:MET:N	2.46	0.48
1:A:210:ALA:O	1:A:214:VAL:N	2.39	0.48
1:C:6:ASN:CB	1:C:92:VAL:HG13	2.44	0.48
2:D:96:GLU:OE2	2:D:98:THR:OG1	2.19	0.48
2:D:163:VAL:HG13	2:D:167:LYS:NZ	2.28	0.48
2:D:253:PHE:O	2:D:256:GLU:HB3	2.12	0.48
1:Q:139:HIS:CE1	1:Q:332:TRP:HA	2.48	0.48
1:Q:278:LEU:O	1:O:194:ARG:NH1	2.47	0.48
3:Q:402:NAD:H2N	3:Q:402:NAD:H2D	1.61	0.48
2:R:151:SER:OG	2:R:153:THR:OG1	2.19	0.48
2:R:203:LEU:C	2:R:235:PRO:HG3	2.34	0.48
2:R:283:ILE:HG22	2:P:204:ASN:HD21	1.79	0.48
1:O:29:VAL:HA	1:O:72:LYS:O	2.13	0.48
1:O:244:VAL:HG23	1:O:245:ASN:O	2.14	0.48
2:P:129:PRO:HD2	2:P:147:ILE:HA	1.95	0.48
2:P:176:THR:HA	2:P:230:ILE:O	2.14	0.48
1:G:60(A):ASP:O	1:G:62:GLU:N	2.47	0.48
1:G:168:VAL:HB	1:G:245:ASN:CG	2.34	0.48
1:G:194:ARG:HH11	1:G:204:VAL:HG22	1.79	0.48
3:G:401:NAD:O3D	3:G:401:NAD:O1A	2.25	0.48
2:H:283:ILE:HG23	2:H:284:ASP:OD1	2.14	0.48
1:E:30:VAL:O	1:E:74:VAL:N	2.30	0.48
1:E:137:TYR:HB3	1:E:331:LYS:HE3	1.95	0.48
1:E:238:SER:OG	1:E:313:ASN:ND2	2.43	0.48
1:E:261:LYS:HZ3	1:E:262:ALA:HB2	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:20:ARG:NH1	1:I:21:LYS:HZ1	2.11	0.48
1:I:54:LYS:CD	1:I:54:LYS:H	2.26	0.48
1:I:256:ASN:HB2	1:I:260:ARG:NH2	2.28	0.48
2:J:2:LYS:HE3	2:J:89:MET:HB3	1.95	0.48
2:J:301:VAL:HG22	2:J:307:VAL:HG13	1.96	0.48
2:J:316:GLU:N	2:J:316:GLU:CD	2.67	0.48
1:K:86:GLU:HG2	1:K:87:LEU:N	2.29	0.48
1:K:186:ASP:OD1	1:K:198:ALA:N	2.37	0.48
2:L:179:HIS:O	2:L:233:ARG:HA	2.14	0.48
2:L:277:ASP:OD1	2:L:297:SER:N	2.47	0.48
1:A:30:VAL:O	1:A:74:VAL:N	2.34	0.48
1:A:54:LYS:H	1:A:54:LYS:CD	2.26	0.48
1:A:253:GLU:OE2	1:A:257:ASN:ND2	2.39	0.48
1:A:255:VAL:O	1:A:259:PHE:N	2.29	0.48
1:A:291:THR:O	1:A:310:TRP:N	2.47	0.48
2:B:31:VAL:HA	2:B:74:LYS:HB2	1.96	0.48
2:B:59:LYS:O	2:B:66:ILE:CG2	2.62	0.48
2:B:131:TYR:HD2	2:B:147:ILE:HD12	1.76	0.48
2:B:196:ARG:CZ	2:D:279:PRO:HA	2.44	0.48
2:B:274:SER:OG	2:B:290:VAL:HG21	2.14	0.48
1:C:133:ASN:N	1:C:134:GLU:OE1	2.46	0.48
1:Q:15:PHE:HA	1:Q:18:CYS:SG	2.54	0.48
1:Q:39:SER:OG	1:Q:40:ALA:N	2.46	0.48
2:R:8:PHE:CZ	2:R:13:ARG:HG3	2.49	0.48
2:R:9:GLY:O	2:R:13:ARG:HD2	2.13	0.48
2:P:11:ILE:HG12	3:P:401:NAD:O1N	2.14	0.48
2:P:212:ALA:O	2:P:216:VAL:HB	2.14	0.48
1:G:130:VAL:HG21	1:G:323:ASP:OD2	2.14	0.48
1:G:182:GLN:HG2	1:G:231:ARG:HD2	1.94	0.48
2:H:94:VAL:HG11	2:H:110:HIS:HD2	1.79	0.48
2:H:181:TYR:HD2	2:H:235:PRO:HA	1.78	0.48
2:F:215:ALA:HA	2:F:218:LEU:HB2	1.96	0.48
2:F:224:LYS:O	2:F:226:LYS:HG3	2.14	0.48
1:I:129:VAL:O	1:I:133:ASN:N	2.45	0.48
1:I:180:GLY:H	2:L:188:LEU:HD22	1.78	0.48
2:J:172:LYS:NZ	2:L:302:MET:O	2.29	0.48
2:J:205:ILE:HG22	2:L:312:TRP:CH2	2.49	0.48
2:J:210:THR:HB	2:J:233:ARG:HH22	1.79	0.48
1:K:72:LYS:HG2	1:K:73:VAL:N	2.29	0.48
1:K:139:HIS:HE1	1:K:332:TRP:CD2	2.31	0.48
1:K:283:PHE:O	1:K:286:SER:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:35:THR:HB	2:L:79:ARG:NH1	2.28	0.48
2:L:272:ILE:O	2:L:291:SER:N	2.23	0.48
1:A:84:TRP:HA	1:A:87:LEU:HD12	1.96	0.48
1:A:167:ILE:HG23	1:A:246:ILE:HD12	1.95	0.48
2:B:14:ASN:OD1	2:B:317:TRP:HA	2.14	0.48
2:B:118:VAL:O	2:B:147:ILE:HG12	2.13	0.48
2:B:281:VAL:HG23	2:B:283:ILE:HG22	1.95	0.48
1:C:10:ARG:HH22	1:C:48:SER:H	1.62	0.48
1:C:105:ALA:HA	1:C:108:HIS:CD2	2.49	0.48
2:D:0:LYS:N	2:D:25:SER:O	2.36	0.48
2:D:193:ARG:H	2:D:193:ARG:NE	2.12	0.48
2:D:220:LEU:HB3	2:D:223:LEU:HD13	1.96	0.48
1:Q:157:PHE:O	1:Q:161:LEU:HG	2.14	0.48
1:Q:261:LYS:O	1:Q:265:GLY:N	2.46	0.48
2:R:38:VAL:O	2:R:42:SER:N	2.38	0.48
2:R:123:PRO:HG3	2:R:150:ALA:HA	1.96	0.48
2:R:199:ARG:HH12	1:O:46:TYR:HB2	1.79	0.48
1:O:183:ARG:HB2	1:O:196:ALA:HA	1.95	0.48
1:O:198:ALA:O	1:O:202:ASN:ND2	2.26	0.48
2:P:239:VAL:HG13	2:P:313:TYR:O	2.14	0.48
1:E:65:SER:HA	1:E:70:PRO:HA	1.94	0.48
1:E:327:LEU:HD23	1:E:328:VAL:HG23	1.95	0.48
2:F:17:ARG:HG2	2:F:54:PHE:CD1	2.49	0.48
2:F:176:THR:HA	2:F:230:ILE:O	2.13	0.48
1:I:11:ILE:HB	1:I:314:GLU:HG2	1.95	0.48
1:I:81:LYS:H	1:I:81:LYS:CE	2.26	0.48
1:I:132:VAL:HA	1:I:159:LYS:HD2	1.96	0.48
1:I:240:VAL:HG13	1:I:311:TYR:HE1	1.79	0.48
1:I:243:VAL:HA	1:I:305:VAL:O	2.13	0.48
2:J:283:ILE:H	2:L:204:ASN:ND2	2.12	0.48
1:K:207:SER:OG	1:K:208:THR:N	2.47	0.48
1:K:312:ASP:OD2	1:K:315:TRP:HB3	2.14	0.48
2:L:178:THR:N	2:L:243:ASP:OD2	2.45	0.48
1:A:256:ASN:HB2	1:A:260:ARG:NH2	2.29	0.48
1:A:318:SER:O	1:A:321:VAL:N	2.45	0.48
2:B:148:SER:OG	2:B:149:ASN:O	2.32	0.48
2:B:164:LEU:HA	2:B:168:PHE:HD1	1.79	0.48
2:B:322:ARG:HA	2:B:325:ASP:OD2	2.14	0.48
1:C:32:ASP:N	1:C:74:VAL:O	2.44	0.48
1:C:47:ASP:CG	1:C:49:ILE:H	2.16	0.48
2:D:2:LYS:NZ	2:D:89:MET:O	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:82:VAL:HG22	2:D:109:LYS:HD2	1.95	0.48
2:D:263:GLU:CD	2:D:264:SER:H	2.15	0.48
2:R:67:SER:HA	2:R:72:VAL:CB	2.44	0.48
2:R:249:SER:OG	2:R:250:LYS:N	2.47	0.48
2:R:257:VAL:HG22	2:R:258:ASN:HD22	1.79	0.48
1:O:191:ARG:HG3	1:O:192:ASP:H	1.79	0.48
2:P:46:LYS:O	2:P:53:THR:OG1	2.17	0.48
2:P:171:ILE:HB	2:P:247:GLN:HG2	1.96	0.48
1:G:0:LYS:NZ	1:G:24:PRO:O	2.35	0.48
1:G:11:ILE:HG13	1:G:314:GLU:CD	2.34	0.48
1:G:18(A):TRP:O	1:G:20:ARG:HB2	2.13	0.48
1:G:99:PHE:HD1	1:G:104:GLY:HA3	1.78	0.48
1:G:183:ARG:HG3	1:G:187:ALA:O	2.13	0.48
2:H:257:VAL:HG22	2:H:258:ASN:HD22	1.77	0.48
2:F:22:ARG:NH2	2:F:325:ASP:OD1	2.47	0.48
2:F:81:PRO:HB3	2:F:110:HIS:HE1	1.78	0.48
2:J:186:ARG:HD2	2:J:190:ALA:HB3	1.96	0.47
1:K:203:ILE:HG13	1:K:232:VAL:HA	1.95	0.47
3:K:402:NAD:O2N	1:E:11:ILE:HG22	2.14	0.47
2:L:8:PHE:HB2	2:L:32:ILE:HD12	1.95	0.47
2:L:152:CYS:SG	3:L:401:NAD:N7N	2.87	0.47
1:A:130:VAL:HG21	1:A:323:ASP:HB2	1.96	0.47
2:B:64:SER:O	2:B:66:ILE:HG12	2.14	0.47
1:C:151:THR:O	1:C:154:LEU:N	2.47	0.47
2:D:189:ASP:HA	2:D:199:ARG:HA	1.96	0.47
2:D:277:ASP:OD1	2:D:297:SER:N	2.47	0.47
2:R:0:LYS:N	2:R:26:PRO:O	2.36	0.47
2:R:51:LEU:HD22	2:R:287:CYS:HB2	1.95	0.47
1:O:84:TRP:HD1	1:O:113:ALA:N	2.12	0.47
2:P:17:ARG:NH1	2:P:51:LEU:HB2	2.29	0.47
2:P:292:SER:OG	2:P:311:ALA:HB1	2.13	0.47
1:G:63:THR:OG1	1:G:72:LYS:NZ	2.23	0.47
1:G:77:ARG:HA	3:G:401:NAD:N1A	2.29	0.47
1:G:306:LYS:NZ	1:E:227:GLY:HA2	2.29	0.47
2:H:88:ASP:HB2	2:H:89:MET:SD	2.54	0.47
2:H:318:GLY:O	2:H:321:GLN:HB2	2.15	0.47
1:E:79:PRO:O	1:E:82:LEU:N	2.38	0.47
1:E:93:ILE:HD12	1:E:117:ILE:HD12	1.95	0.47
2:F:283:ILE:HG23	2:F:284:ASP:OD1	2.14	0.47
1:I:0:LYS:HB2	1:I:24:PRO:HA	1.96	0.47
1:I:48:SER:OG	2:L:199:ARG:NE	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:59:ILE:H	1:I:59:ILE:HD12	1.80	0.47
2:J:46:LYS:HA	2:J:54:PHE:HB3	1.96	0.47
2:J:118:VAL:O	2:J:147:ILE:HG12	2.14	0.47
2:J:119:LEU:HA	2:J:147:ILE:O	2.14	0.47
2:J:281:VAL:HB	2:L:204:ASN:CB	2.39	0.47
2:J:299:THR:HG23	2:J:310:ILE:HG12	1.95	0.47
1:K:177:SER:OG	1:K:237:VAL:N	2.38	0.47
1:K:214:VAL:O	1:K:218:LEU:N	2.47	0.47
1:K:243:VAL:HA	1:K:305:VAL:O	2.13	0.47
2:L:29:VAL:HG12	2:L:31:VAL:O	2.15	0.47
2:L:283:ILE:HA	2:L:286:ARG:HG3	1.96	0.47
1:A:17:ARG:NH2	1:A:51:GLY:O	2.46	0.47
1:A:224:LYS:HB3	1:A:224:LYS:NZ	2.24	0.47
2:B:105:ASP:O	2:B:109:LYS:N	2.28	0.47
2:B:187:LEU:HD13	1:C:184:LEU:HB2	1.96	0.47
1:C:145:SER:O	1:C:145:SER:OG	2.32	0.47
1:C:324:LEU:HD22	1:C:324:LEU:HA	1.60	0.47
1:Q:93:ILE:HG23	1:Q:117:ILE:HB	1.96	0.47
2:R:180:SER:HG	2:R:181:TYR:H	1.63	0.47
2:P:140:TYR:OH	2:P:142:HIS:ND1	2.47	0.47
2:P:142:HIS:CE1	2:P:334:TRP:HA	2.50	0.47
1:G:3:VAL:HG22	1:G:91:ILE:HG13	1.96	0.47
1:G:87:LEU:HB2	1:G:89:ILE:HG12	1.96	0.47
1:G:275:ASP:CG	1:G:295:SER:H	2.18	0.47
2:H:106:GLY:O	2:H:110:HIS:N	2.48	0.47
2:H:164:LEU:O	2:H:168:PHE:N	2.30	0.47
2:H:197:ARG:HH21	2:H:233:ARG:NH2	2.12	0.47
1:E:129:VAL:HG11	1:E:155:ALA:HB3	1.96	0.47
1:E:190:HIS:CE1	1:E:191:ARG:HG3	2.49	0.47
2:F:11:ILE:O	2:F:15:PHE:N	2.42	0.47
1:I:62:GLU:HG3	1:I:63:THR:OG1	2.13	0.47
2:J:142:HIS:CD2	2:J:336:ALA:H	2.28	0.47
2:J:199:ARG:NH2	1:K:48:SER:OG	2.32	0.47
2:J:277:ASP:OD2	2:J:296:SER:OG	2.29	0.47
1:K:138:GLY:HA2	1:K:331:LYS:HD2	1.96	0.47
1:K:159:LYS:HG2	1:K:163:GLU:CD	2.35	0.47
2:L:154:THR:HA	2:L:157:LEU:HG	1.96	0.47
1:A:174:THR:HG23	1:A:176:HIS:H	1.78	0.47
2:B:299:THR:HG23	2:B:310:ILE:HG12	1.95	0.47
1:C:0:LYS:NZ	1:C:1:LEU:HD13	2.29	0.47
1:C:239:VAL:HA	1:C:309:ALA:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:258:ALA:HA	1:C:261:LYS:HB3	1.95	0.47
1:C:312:ASP:OD2	1:C:315:TRP:HB3	2.14	0.47
1:C:316:GLY:HA2	1:C:320:ARG:NH2	2.29	0.47
1:C:340:ALA:HB1	1:C:342:GLY:O	2.15	0.47
2:D:18:CYS:CB	2:D:324:VAL:HG21	2.44	0.47
2:D:37:GLY:HA3	2:D:40:GLN:CD	2.35	0.47
2:D:140:TYR:CE2	2:D:332:ASN:HB2	2.49	0.47
2:D:210:THR:HG23	2:D:213:ALA:N	2.29	0.47
2:D:245:VAL:HA	2:D:307:VAL:O	2.14	0.47
1:Q:10:ARG:HA	1:Q:13:ARG:HB2	1.96	0.47
1:Q:205:PRO:HB3	1:Q:228:ILE:HD11	1.95	0.47
1:Q:278:LEU:HB3	1:Q:282:ASP:CG	2.34	0.47
3:Q:401:NAD:H2N	3:Q:401:NAD:H2D	1.68	0.47
2:R:45:LEU:HD11	2:R:54:PHE:HD2	1.79	0.47
2:R:102:VAL:HG22	2:R:125:LYS:N	2.27	0.47
2:R:164:LEU:O	2:R:168:PHE:N	2.29	0.47
2:R:189:ASP:OD2	2:R:199:ARG:NE	2.30	0.47
2:P:175:MET:SD	2:P:229:GLY:N	2.87	0.47
2:P:269:LEU:HD22	2:P:273:LEU:HB2	1.95	0.47
1:G:114:LYS:O	1:G:142:ASN:ND2	2.27	0.47
1:E:17:ARG:HD2	1:E:53:PHE:CD2	2.49	0.47
1:E:176:HIS:HA	1:E:238:SER:OG	2.14	0.47
2:F:120:ILE:H	2:F:148:SER:HA	1.79	0.47
1:I:76:ASN:HD21	1:I:78:ASP:HB3	1.79	0.47
2:J:64:SER:OG	2:J:75:VAL:N	2.44	0.47
2:J:187:LEU:HG	1:K:180:GLY:HA2	1.97	0.47
1:K:66:ILE:HD11	1:K:71:ILE:HB	1.97	0.47
2:L:172:LYS:HZ1	2:L:247:GLN:CD	2.16	0.47
2:L:273:LEU:HD13	2:L:292:SER:N	2.29	0.47
1:A:127:THR:OG1	1:A:145:SER:O	2.25	0.47
1:C:33:SER:OG	1:C:76:ASN:N	2.48	0.47
1:C:90:ASP:HA	1:C:114:LYS:HZ3	1.80	0.47
2:D:43:HIS:HA	2:D:46:LYS:HB3	1.95	0.47
2:D:180:SER:OG	2:D:181:TYR:N	2.47	0.47
2:R:20:HIS:O	2:R:23:LYS:NZ	2.32	0.47
3:O:401:NAD:N7N	3:O:401:NAD:O1N	2.47	0.47
2:P:283:ILE:HG23	2:P:284:ASP:OD1	2.14	0.47
1:G:17:ARG:CZ	1:G:53:PHE:HA	2.44	0.47
1:G:134:GLU:OE1	1:G:134:GLU:N	2.36	0.47
1:G:236:ASN:HD21	1:G:314:GLU:N	2.12	0.47
2:H:249:SER:OG	2:H:250:LYS:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:18(B):HIS:HB3	1:E:53:PHE:CE2	2.48	0.47
1:E:46:TYR:HA	1:E:52:THR:HA	1.96	0.47
1:E:108:HIS:HA	1:E:111:ALA:HB3	1.95	0.47
2:F:39:LYS:HB2	2:F:43:HIS:CE1	2.50	0.47
2:F:320:SER:O	2:F:324:VAL:HG23	2.13	0.47
1:I:76:ASN:OD1	1:I:77:ARG:N	2.47	0.47
2:J:22:ARG:HG3	2:J:324:VAL:HG11	1.96	0.47
2:J:192:HIS:CE1	2:J:194:ASP:HB3	2.49	0.47
2:J:253:PHE:CE2	2:J:255:GLU:HB3	2.46	0.47
2:J:277:ASP:HB3	2:J:297:SER:HB3	1.96	0.47
1:K:47:ASP:OD1	1:K:50:LEU:N	2.47	0.47
1:K:281:VAL:O	1:K:284:ARG:HB2	2.13	0.47
2:L:131:TYR:HD1	2:L:131:TYR:HA	1.63	0.47
2:L:140:TYR:CE2	2:L:332:ASN:HB2	2.49	0.47
2:L:181:TYR:N	2:L:234:VAL:O	2.48	0.47
2:L:240:SER:CB	2:L:315:ASN:HD21	2.27	0.47
1:A:3:VAL:HB	1:A:27:VAL:HA	1.96	0.47
2:B:97:GLY:O	3:B:401:NAD:H52A	2.14	0.47
2:B:176:THR:HG23	2:B:230:ILE:HG13	1.96	0.47
2:B:281:VAL:HB	2:D:204:ASN:CB	2.39	0.47
1:C:58:LYS:HA	1:C:58:LYS:HZ2	1.80	0.47
1:C:283:PHE:O	1:C:286:SER:HB3	2.14	0.47
2:D:3:VAL:HB	2:D:29:VAL:HA	1.96	0.47
2:D:17:ARG:HH21	2:D:55:ASP:CG	2.15	0.47
1:Q:175:THR:HB	1:Q:232:VAL:HG21	1.95	0.47
2:R:27:LEU:HD22	2:R:27:LEU:H	1.79	0.47
2:R:54:PHE:C	2:R:56:ALA:H	2.18	0.47
2:P:35:THR:HA	2:P:77:SER:CB	2.44	0.47
1:G:125:ILE:H	1:G:125:ILE:HD12	1.79	0.47
1:G:230:LEU:HD22	1:G:232:VAL:HG12	1.95	0.47
2:H:177:THR:OG1	2:H:178:THR:N	2.48	0.47
2:H:326:LEU:HD12	2:H:329:ILE:HB	1.97	0.47
1:E:156:PRO:O	1:E:160:VAL:HG23	2.13	0.47
2:F:129:PRO:HD2	2:F:147:ILE:HA	1.96	0.47
2:F:188:LEU:HA	2:F:200:ALA:HA	1.96	0.47
2:F:315:ASN:N	2:F:316:GLU:OE2	2.45	0.47
1:I:29:VAL:HG11	1:I:87:LEU:HD13	1.96	0.47
1:I:85:ALA:N	1:I:112:GLY:HA3	2.30	0.47
1:I:186:ASP:H	2:L:10:ARG:NH2	2.12	0.47
1:I:287:ASP:O	1:I:320:ARG:NH1	2.42	0.47
1:K:236:ASN:H	1:K:284:ARG:NH2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:15:PHE:HE2	2:L:323:VAL:HB	1.80	0.47
1:A:169:LYS:HE2	1:A:245:ASN:ND2	2.30	0.47
1:A:183:ARG:HG2	1:A:187:ALA:H	1.80	0.47
2:B:80:ASN:O	2:B:84:LEU:N	2.47	0.47
2:B:279:PRO:HD2	2:D:195:LEU:HD22	1.97	0.47
1:C:11:ILE:HA	1:C:14:ASN:HB2	1.97	0.47
1:C:40:ALA:HA	1:C:43:LEU:HD12	1.96	0.47
1:C:198:ALA:HB1	1:C:201:LEU:HD21	1.96	0.47
1:Q:178:TYR:N	1:Q:232:VAL:O	2.47	0.47
1:Q:201:LEU:H	1:Q:201:LEU:HG	1.49	0.47
1:Q:236:ASN:H	1:Q:284:ARG:HH22	1.63	0.47
2:R:2:LYS:HE3	2:R:89:MET:HB3	1.96	0.47
1:O:17:ARG:HD2	1:O:53:PHE:CD2	2.49	0.47
1:O:109:ILE:HA	1:O:113:ALA:HB3	1.96	0.47
1:G:117:ILE:HA	1:G:144:ILE:HG12	1.95	0.47
1:E:80:LEU:HB2	1:E:81:LYS:NZ	2.30	0.47
2:F:96:GLU:O	2:F:120:ILE:HG23	2.15	0.47
2:F:175:MET:SD	2:F:229:GLY:N	2.87	0.47
2:F:215:ALA:HA	2:F:218:LEU:HD13	1.97	0.47
1:I:18(A):TRP:HA	1:I:20:ARG:HB2	1.95	0.47
1:I:29:VAL:HG23	1:I:72:LYS:C	2.34	0.47
1:I:47:ASP:OD1	1:I:50:LEU:N	2.48	0.47
1:I:298:MET:SD	1:I:306:LYS:HD2	2.55	0.47
2:J:8:PHE:HB3	2:J:34:ASP:HB2	1.97	0.47
2:J:37:GLY:HA3	2:J:40:GLN:CD	2.35	0.47
2:J:39:LYS:HZ3	2:J:40:GLN:H	1.62	0.47
2:J:215:ALA:HB1	2:J:219:VAL:HG13	1.96	0.47
1:K:3:VAL:HG12	1:K:4:ALA:H	1.79	0.47
1:K:37:VAL:HG13	1:K:41:THR:OG1	2.15	0.47
2:L:42:SER:CB	2:L:66:ILE:HD12	2.39	0.47
2:L:104:ARG:NH2	2:L:129:PRO:HD3	2.29	0.47
2:L:189:ASP:HA	2:L:199:ARG:HA	1.97	0.47
2:L:295:ASP:O	2:L:299:THR:HG23	2.14	0.47
1:A:3:VAL:HA	1:A:89:ILE:HG23	1.96	0.47
1:A:84:TRP:O	1:A:89:ILE:N	2.32	0.47
1:A:199:ALA:O	1:A:201:LEU:N	2.44	0.47
1:A:201:LEU:H	1:A:201:LEU:HG	1.61	0.47
1:A:203:ILE:HA	1:A:231:ARG:O	2.15	0.47
2:B:14:ASN:ND2	2:B:317:TRP:HE3	2.12	0.47
2:B:42:SER:OG	2:B:43:HIS:N	2.47	0.47
2:B:104:ARG:NH2	2:B:128:ILE:HA	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:164:LEU:HB3	2:B:170:ILE:HD11	1.96	0.47
2:B:210:THR:HB	2:B:233:ARG:HH12	1.79	0.47
2:B:272:ILE:C	2:B:291:SER:HG	2.17	0.47
1:C:37:VAL:HG12	1:C:59:ILE:HG23	1.97	0.47
1:C:154:LEU:HG	1:C:158:VAL:HG21	1.97	0.47
1:C:178:TYR:H	1:C:234:THR:H	1.62	0.47
2:D:180:SER:HB3	2:D:315:ASN:ND2	2.24	0.47
2:D:248:VAL:N	2:D:305:ASP:O	2.34	0.47
1:Q:31:ASN:ND2	1:Q:76:ASN:H	2.11	0.47
1:Q:116:VAL:HB	1:Q:143:ILE:HG23	1.96	0.47
1:Q:149:CYS:HA	1:Q:152:ASN:ND2	2.27	0.47
1:Q:226:ASN:HB2	1:O:300:MET:SD	2.55	0.47
1:Q:230:LEU:O	1:Q:232:VAL:HG13	2.15	0.47
2:R:35:THR:HG21	2:R:79:ARG:NE	2.29	0.47
2:R:197:ARG:HH21	2:R:233:ARG:NH2	2.12	0.47
2:R:209:SER:HA	2:R:231:ALA:N	2.29	0.47
2:R:245:VAL:HA	2:R:308:LYS:HA	1.97	0.47
2:R:255:GLU:OE1	2:R:262:ARG:NH2	2.38	0.47
1:O:10:ARG:HD2	1:O:13:ARG:HE	1.80	0.47
3:O:401:NAD:PN	3:O:401:NAD:H3D	2.55	0.47
2:P:81:PRO:HB2	2:P:109:LYS:HE2	1.97	0.47
2:P:120:ILE:H	2:P:148:SER:HA	1.80	0.47
2:P:168:PHE:HB3	2:P:250:LYS:HB3	1.96	0.47
2:P:175:MET:HB3	2:P:244:LEU:HB2	1.96	0.47
2:P:175:MET:HG3	2:P:244:LEU:HD13	1.95	0.47
2:P:185:GLN:HA	2:P:197:ARG:HB3	1.96	0.47
2:P:188:LEU:HA	2:P:200:ALA:HA	1.96	0.47
1:G:14:ASN:ND2	1:G:314:GLU:OE1	2.48	0.47
1:G:171:THR:O	1:G:242:LEU:HD12	2.14	0.47
1:G:190:HIS:HB3	1:G:196:ALA:CA	2.45	0.47
1:G:228:ILE:HG12	1:G:229:ALA:N	2.29	0.47
1:G:242:LEU:O	1:G:307:VAL:HG23	2.14	0.47
1:G:299:VAL:HG13	1:G:305:VAL:HA	1.96	0.47
1:G:306:LYS:NZ	1:E:172:MET:O	2.48	0.47
2:H:131:TYR:N	2:H:148:SER:O	2.33	0.47
2:H:138:GLU:H	2:H:138:GLU:CD	2.17	0.47
2:H:142:HIS:CE1	2:H:334:TRP:CE3	3.00	0.47
2:H:238:ASN:ND2	2:H:239:VAL:H	2.13	0.47
2:H:258:ASN:O	2:H:262:ARG:HG3	2.15	0.47
1:E:84:TRP:HD1	1:E:113:ALA:N	2.13	0.47
1:E:165:LEU:HD22	1:E:255:VAL:HG21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:209:GLY:HA2	1:E:212:LYS:HE2	1.95	0.47
1:E:312:ASP:CG	1:E:316:GLY:H	2.17	0.47
2:F:96:GLU:HG2	2:F:98:THR:HG23	1.97	0.47
2:F:142:HIS:CD2	2:F:336:ALA:H	2.25	0.47
2:F:176:THR:HB	2:F:243:ASP:HB2	1.96	0.47
2:F:212:ALA:O	2:F:216:VAL:HB	2.14	0.47
1:I:273:VAL:HG13	1:I:292:ILE:HD12	1.97	0.47
2:J:31:VAL:HA	2:J:74:LYS:HB2	1.97	0.47
1:K:40:ALA:HA	1:K:43:LEU:HD12	1.97	0.47
1:K:220:GLN:HG2	1:K:221:LEU:HD22	1.96	0.47
2:L:196:ARG:NH1	2:L:207:PRO:HD2	2.30	0.47
2:L:220:LEU:CB	2:L:223:LEU:HB2	2.45	0.47
1:A:121:PRO:O	1:A:122(A):LYS:N	2.44	0.47
1:A:190:HIS:HA	1:G:357:GLU:CA	2.43	0.47
1:A:346:GLU:O	1:A:350:LYS:N	2.39	0.47
2:B:132:VAL:HG22	2:B:149:ASN:HA	1.96	0.47
2:B:244:LEU:HD11	2:B:246:VAL:HG13	1.97	0.47
2:B:244:LEU:N	2:B:309:VAL:HG22	2.30	0.47
2:B:316:GLU:N	2:B:316:GLU:CD	2.67	0.47
1:C:169:LYS:CE	1:C:245:ASN:HD21	2.28	0.47
2:D:86:TRP:NE1	2:D:113:ALA:HB3	2.30	0.47
2:D:124:GLY:HA3	2:D:128:ILE:HD13	1.97	0.47
1:Q:1:LEU:CB	1:Q:25:LEU:HB3	2.44	0.47
1:Q:221:LEU:HD12	1:Q:224:LYS:HZ2	1.79	0.47
2:R:220:LEU:HD23	2:R:220:LEU:HA	1.77	0.47
2:R:269:LEU:HB3	2:R:273:LEU:HB2	1.97	0.47
2:R:269:LEU:O	2:R:273:LEU:N	2.41	0.47
1:O:18(B):HIS:HE1	1:O:67:ASP:HB2	1.79	0.47
1:O:203:ILE:HG23	1:O:230:LEU:HB3	1.97	0.47
2:P:107:ALA:HB1	2:P:118:VAL:HG21	1.96	0.47
1:G:60:ILE:HB	1:G:63:THR:O	2.15	0.47
1:G:300:MET:N	1:G:304:MET:O	2.38	0.47
2:H:152:CYS:HB3	2:H:319:TYR:CG	2.49	0.47
2:H:205:ILE:HG23	2:H:207:PRO:HD3	1.96	0.47
2:H:210:THR:H	2:H:231:ALA:HB2	1.79	0.47
2:H:269:LEU:O	2:H:273:LEU:N	2.40	0.47
2:H:305:ASP:OD1	2:F:172:LYS:NZ	2.29	0.47
1:E:10:ARG:O	1:E:13:ARG:HG3	2.15	0.47
1:E:179:THR:H	1:E:182:GLN:NE2	2.10	0.47
2:F:50:ILE:HG23	2:F:286:ARG:NH1	2.27	0.47
1:I:42:HIS:O	1:I:46:TYR:N	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:54:LYS:H	1:I:54:LYS:HD2	1.78	0.47
2:J:61:ALA:HA	2:J:62:GLY:HA2	1.54	0.47
2:J:238:ASN:ND2	2:J:282:SER:O	2.47	0.47
2:J:273:LEU:HD12	2:J:292:SER:HB3	1.97	0.47
2:J:283:ILE:N	2:J:286:ARG:HH21	2.12	0.47
1:K:241:ASP:HA	1:K:307:VAL:O	2.15	0.47
2:L:79:ARG:HD3	3:L:401:NAD:H61A	1.80	0.47
1:A:46:TYR:HB2	2:D:199:ARG:NH1	2.29	0.47
1:A:79:PRO:HG2	1:A:107:LYS:HB2	1.96	0.47
2:B:11:ILE:HG12	3:B:401:NAD:O5D	2.15	0.47
2:B:107:ALA:HB1	2:B:118:VAL:HG11	1.97	0.47
2:B:162:LYS:HB2	2:B:220:LEU:HD21	1.96	0.47
2:B:166:GLN:HB2	2:B:167:LYS:HD2	1.96	0.47
2:B:180:SER:OG	2:B:181:TYR:N	2.47	0.47
2:B:182:THR:O	1:C:184:LEU:HD21	2.14	0.47
2:B:281:VAL:N	2:B:284:ASP:OD2	2.42	0.47
2:B:332:ASN:O	2:B:333:LYS:HG2	2.15	0.47
1:C:72:LYS:HG2	1:C:73:VAL:H	1.80	0.47
2:D:9:GLY:O	2:D:13:ARG:HD2	2.14	0.47
2:D:65:ALA:HB2	2:D:74:LYS:CE	2.44	0.47
2:D:223:LEU:HD23	2:D:227:LEU:HG	1.96	0.47
1:Q:78:ASP:O	1:Q:82:LEU:HG	2.15	0.47
1:Q:167:ILE:HG23	1:Q:246:ILE:HA	1.96	0.47
1:Q:169:LYS:N	1:Q:245:ASN:OD1	2.42	0.47
1:Q:241:ASP:HA	1:Q:307:VAL:O	2.15	0.47
1:O:30:VAL:O	1:O:74:VAL:HG23	2.15	0.47
1:O:137:TYR:HD2	1:O:331:LYS:HB3	1.76	0.47
1:O:167:ILE:HA	1:O:246:ILE:HD12	1.97	0.47
1:O:175:THR:HB	1:O:232:VAL:HG21	1.96	0.47
1:O:316:GLY:HA2	1:O:319:GLN:HG2	1.97	0.47
2:P:0:LYS:NZ	2:P:331:ALA:O	2.42	0.47
2:P:4:ALA:HA	2:P:31:VAL:O	2.14	0.47
2:P:12:GLY:O	2:P:16:LEU:N	2.46	0.47
2:P:86:TRP:HD1	2:P:113:ALA:O	1.97	0.47
2:P:185:GLN:OE1	2:P:185:GLN:N	2.41	0.47
1:G:186:ASP:H	2:F:10:ARG:NH2	2.13	0.47
1:G:243:VAL:HG21	1:E:243:VAL:HG11	1.97	0.47
1:G:291:THR:OG1	1:G:310:TRP:O	2.27	0.47
2:H:51:LEU:HD22	2:H:51:LEU:HA	1.78	0.47
2:H:60:THR:O	2:H:60:THR:OG1	2.28	0.47
2:H:142:HIS:HB3	2:H:335:GLN:NE2	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:238:ASN:ND2	2:H:286:ARG:HH12	2.13	0.47
1:E:5:ILE:HB	1:E:30:VAL:HG13	1.97	0.47
1:E:8:PHE:CZ	1:E:44:LEU:HB2	2.50	0.47
1:E:15:PHE:CA	1:E:318:SER:HB2	2.45	0.47
1:E:191:ARG:HB2	1:E:191:ARG:CZ	2.45	0.47
1:E:193:LEU:H	1:E:193:LEU:HG	1.37	0.47
1:E:298:MET:O	1:E:306:LYS:N	2.48	0.47
2:F:35:THR:HA	2:F:77:SER:HB3	1.96	0.47
2:F:38:VAL:CB	2:F:63:ASP:O	2.63	0.47
2:F:180:SER:HG	2:F:181:TYR:H	1.62	0.47
2:F:241:VAL:HG13	2:F:311:ALA:C	2.35	0.47
1:I:255:VAL:HG12	1:I:259:PHE:CE2	2.50	0.47
1:I:272:ASP:HB2	1:I:288:PHE:CD1	2.50	0.47
2:J:104:ARG:NH2	2:J:128:ILE:HA	2.29	0.47
2:J:244:LEU:N	2:J:309:VAL:HG22	2.29	0.47
2:J:267:ASN:OD1	2:J:268:GLU:N	2.48	0.47
1:K:31:ASN:HD22	3:K:401:NAD:H2A	1.80	0.47
2:L:41:ALA:HA	2:L:44:LEU:HD12	1.96	0.47
1:A:29:VAL:HB	1:A:72:LYS:HB2	1.97	0.47
1:A:80:LEU:HD23	1:A:110:GLN:HB3	1.97	0.47
1:A:115:LYS:HZ1	1:A:139:HIS:CD2	2.33	0.47
1:A:158:VAL:HG22	1:A:161:LEU:HD11	1.97	0.47
2:B:119:LEU:HA	2:B:147:ILE:O	2.15	0.47
2:B:177:THR:HG1	2:B:178:THR:N	2.12	0.47
1:C:92:VAL:O	1:C:117:ILE:N	2.44	0.47
2:D:196:ARG:NH1	2:D:207:PRO:HD2	2.30	0.47
2:D:216:VAL:HG22	2:D:223:LEU:O	2.14	0.47
1:O:83:PRO:HG2	1:O:86:GLU:CD	2.34	0.47
1:O:153:CYS:O	1:O:156:PRO:HD2	2.15	0.47
1:O:350:LYS:N	1:O:358:CYS:SG	2.88	0.47
2:P:211:GLY:HA2	2:P:214:LYS:HD2	1.97	0.47
2:P:238:ASN:ND2	2:P:239:VAL:H	2.13	0.47
1:G:278:LEU:H	1:E:194:ARG:NH2	2.13	0.47
2:H:102:VAL:HG21	2:H:125:LYS:HD2	1.96	0.47
2:H:123:PRO:HG3	2:H:150:ALA:HA	1.96	0.47
2:H:131:TYR:CD2	2:H:147:ILE:HG21	2.50	0.47
1:E:252:ALA:O	1:E:255:VAL:N	2.48	0.47
2:F:196:ARG:HB2	2:F:206:VAL:HG13	1.95	0.47
1:I:164:GLU:OE1	1:I:258:ALA:HB1	2.15	0.46
1:I:272:ASP:O	1:I:290:SER:OG	2.33	0.46
2:J:1:LEU:HB2	2:J:26:PRO:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:176:THR:HA	2:J:230:ILE:O	2.15	0.46
2:J:208:THR:O	2:J:230:ILE:HB	2.15	0.46
2:J:215:ALA:HA	2:J:218:LEU:HD13	1.98	0.46
2:J:281:VAL:HA	2:J:312:TRP:CH2	2.50	0.46
1:K:193:LEU:O	1:K:197:ARG:HG2	2.15	0.46
2:L:206:VAL:O	2:L:208:THR:HG22	2.15	0.46
2:L:239:VAL:HA	2:L:314:ASP:HA	1.97	0.46
1:A:348:PHE:O	1:A:352:ASN:N	2.29	0.46
2:B:31:VAL:HG21	2:B:89:MET:HG2	1.96	0.46
2:B:32:ILE:HG22	2:B:33:ASN:H	1.80	0.46
2:B:257:VAL:O	2:B:261:PHE:N	2.23	0.46
1:C:115:LYS:HA	1:C:142:ASN:O	2.15	0.46
1:C:172:MET:SD	1:C:174:THR:N	2.88	0.46
2:D:175:MET:HA	2:D:244:LEU:HA	1.97	0.46
2:D:179:HIS:N	2:D:232:LEU:O	2.48	0.46
1:Q:29:VAL:HB	1:Q:72:LYS:HB3	1.97	0.46
1:Q:91:ILE:HA	1:Q:115:LYS:O	2.15	0.46
1:Q:142:ASN:O	1:Q:144:ILE:HD13	2.15	0.46
1:Q:194:ARG:HD3	1:O:277:PRO:HB2	1.96	0.46
2:R:78:ASP:OD1	2:R:79:ARG:N	2.48	0.46
1:O:171:THR:HB	1:O:226:ASN:HB2	1.97	0.46
1:O:218:LEU:HA	1:O:220:GLN:NE2	2.30	0.46
1:O:232:VAL:HG23	1:O:234:THR:HG22	1.97	0.46
2:P:239:VAL:HG13	2:P:313:TYR:C	2.35	0.46
2:P:245:VAL:HG13	2:P:307:VAL:C	2.35	0.46
2:H:46:LYS:HE2	2:H:57:ASP:HA	1.96	0.46
1:E:4:ALA:HB2	1:E:89:ILE:HG13	1.96	0.46
1:E:218:LEU:HA	1:E:220:GLN:NE2	2.30	0.46
1:E:290:SER:OG	1:E:291:THR:N	2.48	0.46
2:F:58:VAL:HA	2:F:68:VAL:HA	1.97	0.46
2:F:208:THR:O	2:F:230:ILE:HB	2.14	0.46
2:F:269:LEU:HD22	2:F:273:LEU:HB2	1.97	0.46
1:I:176:HIS:HA	1:I:238:SER:OG	2.16	0.46
2:J:182:THR:O	2:J:185:GLN:HB2	2.15	0.46
2:J:281:VAL:O	2:J:284:ASP:N	2.39	0.46
1:K:17:ARG:HH22	1:K:47:ASP:HB3	1.80	0.46
1:K:31:ASN:ND2	1:K:76:ASN:H	2.13	0.46
1:K:126:PRO:HG2	1:K:141:ALA:HA	1.96	0.46
1:K:244:VAL:O	1:K:304:MET:HA	2.15	0.46
2:L:120:ILE:O	2:L:148:SER:OG	2.20	0.46
2:L:141:THR:OG1	2:L:144:ASP:OD1	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:175:MET:O	2:L:229:GLY:HA3	2.16	0.46
2:L:299:THR:HG22	2:L:309:VAL:HA	1.96	0.46
1:A:62:GLU:O	1:A:73:VAL:N	2.48	0.46
1:A:82:LEU:HB2	1:A:84:TRP:CZ2	2.50	0.46
2:B:1:LEU:O	2:B:28:ASP:N	2.48	0.46
2:B:282:SER:H	2:D:204:ASN:HB3	1.80	0.46
1:C:273:VAL:HG22	1:C:292:ILE:HD11	1.95	0.46
2:D:300:MET:HB3	2:D:308:LYS:HB3	1.97	0.46
1:Q:81:LYS:HE3	1:Q:81:LYS:HB3	1.66	0.46
1:Q:85:ALA:CA	1:Q:112:GLY:HA3	2.45	0.46
1:Q:169:LYS:HE2	1:O:304:MET:HE3	1.96	0.46
1:Q:236:ASN:HD21	1:Q:314:GLU:N	2.12	0.46
2:R:29:VAL:N	2:R:71:LYS:HZ1	2.13	0.46
2:R:96:GLU:HG3	2:R:101:PHE:HB2	1.97	0.46
2:R:159:PRO:HA	2:R:162:LYS:HE3	1.97	0.46
2:R:258:ASN:O	2:R:262:ARG:HG3	2.15	0.46
1:O:258:ALA:O	1:O:261:LYS:HB3	2.15	0.46
1:O:310:TRP:N	1:O:310:TRP:CD1	2.83	0.46
2:P:133:VAL:HA	2:P:137:GLU:HB3	1.97	0.46
2:P:335:GLN:OE1	2:P:336:ALA:N	2.47	0.46
1:G:151:THR:O	1:G:154:LEU:N	2.49	0.46
2:H:87:GLY:CA	2:H:114:GLY:HA3	2.44	0.46
2:H:173:GLY:O	2:H:228:ASN:N	2.49	0.46
2:H:279:PRO:HG2	2:F:195:LEU:HD22	1.97	0.46
1:E:157:PHE:HA	1:E:160:VAL:HB	1.97	0.46
1:I:15:PHE:HE1	1:I:322:VAL:HG22	1.80	0.46
1:I:219:PRO:HB3	1:Q:123(A):SER:OG	2.14	0.46
2:J:32:ILE:HG12	2:J:74:LYS:O	2.16	0.46
2:J:86:TRP:NE1	2:J:113:ALA:HB3	2.30	0.46
2:J:161:VAL:HA	2:J:164:LEU:HB2	1.97	0.46
2:J:170:ILE:HG12	2:J:246:VAL:HG12	1.98	0.46
2:J:180:SER:OG	2:J:181:TYR:N	2.48	0.46
2:J:187:LEU:HA	1:K:184:LEU:HD13	1.96	0.46
2:L:121:THR:HA	2:L:149:ASN:HB3	1.97	0.46
2:L:144:ASP:OD1	2:L:144:ASP:N	2.48	0.46
2:L:263:GLU:CD	2:L:264:SER:H	2.15	0.46
2:L:300:MET:HB3	2:L:308:LYS:HB3	1.96	0.46
1:A:270:VAL:HA	1:A:289:SER:OG	2.14	0.46
2:B:11:ILE:HA	2:B:14:ASN:HB3	1.97	0.46
2:B:45:LEU:O	2:B:54:PHE:HB2	2.16	0.46
2:B:156:CYS:SG	2:B:157:LEU:N	2.88	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:57:VAL:HG13	1:C:66:ILE:HA	1.98	0.46
1:C:360:LEU:O	1:O:195:ARG:NH2	2.48	0.46
2:D:231:ALA:O	2:D:232:LEU:HD23	2.15	0.46
1:Q:10:ARG:O	1:Q:14:ASN:ND2	2.31	0.46
1:O:324:LEU:O	1:O:328:VAL:HG23	2.16	0.46
1:G:39:SER:OG	1:G:40:ALA:N	2.49	0.46
1:G:50:LEU:HD22	1:G:285:CYS:SG	2.55	0.46
1:E:178:TYR:CE1	1:E:235:PRO:HA	2.50	0.46
1:E:293:ASP:O	1:E:308:VAL:HB	2.15	0.46
2:F:2:LYS:HG3	2:F:91:ILE:HA	1.98	0.46
2:F:167:LYS:HD2	2:F:167:LYS:N	2.29	0.46
2:F:273:LEU:HD13	2:F:291:SER:HB2	1.97	0.46
1:I:9:GLY:O	1:I:12:GLY:N	2.48	0.46
1:I:40:ALA:HA	1:I:43:LEU:HB2	1.97	0.46
1:I:179:THR:O	1:I:182:GLN:NE2	2.48	0.46
2:J:9:GLY:HA2	3:J:401:NAD:H4B	1.97	0.46
2:J:17:ARG:NH1	2:J:52:GLY:O	2.45	0.46
2:J:168:PHE:HA	2:J:250:LYS:HE2	1.97	0.46
2:J:173:GLY:O	2:J:228:ASN:N	2.34	0.46
2:J:179:HIS:CE1	2:J:233:ARG:HD3	2.49	0.46
2:J:302:MET:HE3	2:L:228:ASN:HB3	1.97	0.46
1:K:151:THR:O	1:K:154:LEU:N	2.47	0.46
1:K:273:VAL:HA	1:K:292:ILE:HG13	1.96	0.46
2:L:22:ARG:HE	2:L:321:GLN:NE2	2.13	0.46
2:L:32:ILE:O	2:L:75:VAL:HA	2.15	0.46
2:L:168:PHE:O	2:L:249:SER:OG	2.33	0.46
2:L:180:SER:H	2:L:315:ASN:ND2	2.13	0.46
2:L:216:VAL:HG22	2:L:223:LEU:O	2.15	0.46
1:A:59:ILE:H	1:A:59:ILE:HD12	1.79	0.46
1:A:118:ILE:O	1:A:146:ASN:N	2.48	0.46
1:A:164:GLU:OE1	1:A:258:ALA:HB1	2.15	0.46
1:A:240:VAL:H	1:A:311:TYR:HE1	1.62	0.46
1:A:292:ILE:HG12	1:A:309:ALA:HB1	1.96	0.46
2:B:4:ALA:O	2:B:94:VAL:HA	2.15	0.46
2:B:118:VAL:HB	2:B:146:ILE:HG12	1.97	0.46
1:C:5:ILE:HB	1:C:30:VAL:HG22	1.97	0.46
1:C:108:HIS:ND1	1:C:108:HIS:N	2.63	0.46
1:C:278:LEU:HB3	1:C:282:ASP:OD2	2.15	0.46
1:Q:206:THR:O	1:Q:229:ALA:N	2.42	0.46
2:R:60:THR:CB	2:R:66:ILE:HA	2.45	0.46
2:R:186:ARG:HH22	2:R:193:ARG:HH22	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:292:ILE:HG23	1:O:309:ALA:HB2	1.97	0.46
3:O:401:NAD:H2D	3:O:401:NAD:H2N	1.69	0.46
2:P:294:ILE:HA	2:P:311:ALA:HB2	1.98	0.46
1:G:74:VAL:HG11	1:G:82:LEU:HD22	1.98	0.46
2:H:5:ILE:HD11	2:H:95:ILE:HG12	1.96	0.46
2:H:93:LEU:HD21	2:H:95:ILE:HD11	1.98	0.46
1:E:203:ILE:HA	1:E:231:ARG:O	2.16	0.46
1:E:258:ALA:O	1:E:261:LYS:HB3	2.15	0.46
2:F:20:HIS:O	2:F:23:LYS:NZ	2.28	0.46
2:F:152:CYS:HA	2:F:155:ASN:HD22	1.80	0.46
2:F:172:LYS:O	2:F:247:GLN:N	2.44	0.46
2:F:224:LYS:HG3	2:F:226:LYS:HZ2	1.81	0.46
2:F:314:ASP:OD2	2:F:317:TRP:N	2.38	0.46
1:I:4:ALA:HB2	1:I:89:ILE:HG13	1.96	0.46
1:I:154:LEU:HD12	1:I:157:PHE:CE2	2.51	0.46
1:I:161:LEU:HB2	1:I:167:ILE:HG12	1.97	0.46
1:I:343:ASP:HA	2:P:37:GLY:HA2	1.97	0.46
2:J:32:ILE:HG22	2:J:33:ASN:H	1.79	0.46
2:J:80:ASN:HD22	2:J:83:ASN:CG	2.18	0.46
2:J:184:ASP:O	2:J:197:ARG:NH1	2.43	0.46
1:K:252:ALA:HB2	1:K:298:MET:HA	1.97	0.46
1:A:150:THR:O	1:A:154:LEU:N	2.41	0.46
1:A:181:ASP:HB3	1:G:362:GLU:O	2.14	0.46
2:B:253:PHE:CE2	2:B:255:GLU:HB3	2.45	0.46
1:C:173:THR:HG23	1:C:228:ILE:O	2.15	0.46
1:C:264:ALA:HA	1:C:268:LYS:HD3	1.98	0.46
1:Q:5:ILE:HG12	1:Q:93:ILE:HG13	1.96	0.46
1:Q:6:ASN:HB3	1:Q:93:ILE:O	2.15	0.46
2:R:40:GLN:O	2:R:44:LEU:N	2.26	0.46
2:R:242:VAL:HG13	2:R:311:ALA:O	2.16	0.46
1:O:20:ARG:HH21	1:O:319:GLN:HB3	1.81	0.46
1:O:204:VAL:O	1:O:230:LEU:HA	2.14	0.46
1:O:294:SER:HA	1:O:297:THR:HB	1.98	0.46
2:P:50:ILE:HG22	2:P:51:LEU:HD23	1.96	0.46
2:P:152:CYS:HB3	2:P:319:TYR:CD2	2.50	0.46
2:P:252:THR:N	2:P:304:ASP:HB3	2.25	0.46
1:G:84:TRP:CE3	1:G:89:ILE:HG13	2.50	0.46
2:H:210:THR:HB	2:H:233:ARG:HH12	1.79	0.46
1:E:134:GLU:H	1:E:134:GLU:CD	2.17	0.46
1:E:169:LYS:HE2	1:E:245:ASN:ND2	2.30	0.46
1:E:256:ASN:HA	1:E:259:PHE:CD2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:172:LYS:H	2:F:247:GLN:HB3	1.81	0.46
1:I:74:VAL:HG21	1:I:84:TRP:CH2	2.51	0.46
2:J:54:PHE:CE2	2:J:56:ALA:HB3	2.51	0.46
2:J:168:PHE:CZ	2:J:257:VAL:HG23	2.51	0.46
1:K:15:PHE:O	1:K:18(A):TRP:N	2.33	0.46
1:K:20:ARG:NH1	1:K:21:LYS:H	2.13	0.46
1:K:103:PRO:HG2	1:E:109:ILE:HG22	1.97	0.46
1:K:137:TYR:OH	1:K:328:VAL:O	2.34	0.46
1:K:150:THR:O	1:K:154:LEU:HB2	2.16	0.46
1:K:293:ASP:HB3	1:K:308:VAL:HB	1.96	0.46
2:L:42:SER:CB	2:L:66:ILE:HD13	2.44	0.46
2:L:167:LYS:HA	2:L:167:LYS:HD3	1.71	0.46
1:A:255:VAL:HG12	1:A:259:PHE:CE2	2.51	0.46
2:B:208:THR:O	2:B:230:ILE:HB	2.16	0.46
1:C:2:LYS:HB3	1:C:89:ILE:HD13	1.97	0.46
1:C:177:SER:HB2	1:C:236:ASN:HA	1.98	0.46
1:C:252:ALA:HB2	1:C:298:MET:HA	1.98	0.46
1:C:281:VAL:O	1:C:284:ARG:HB2	2.16	0.46
1:Q:24:PRO:HD3	1:Q:326:ASP:OD2	2.15	0.46
1:Q:133:ASN:N	1:Q:134:GLU:OE1	2.49	0.46
2:R:67:SER:CA	2:R:72:VAL:HG22	2.32	0.46
1:O:10:ARG:O	1:O:13:ARG:HG3	2.15	0.46
2:P:43:HIS:HB3	2:P:47:TYR:HD2	1.81	0.46
2:P:91:ILE:HG21	2:P:94:VAL:HG23	1.97	0.46
2:P:108:GLY:O	2:P:112:GLN:N	2.49	0.46
2:P:258:ASN:O	2:P:262:ARG:HD2	2.15	0.46
1:G:18(B):HIS:HB3	1:G:53:PHE:CZ	2.49	0.46
1:G:58:LYS:HZ3	1:G:58:LYS:HA	1.80	0.46
2:H:154:THR:HG21	2:H:215:ALA:HB3	1.97	0.46
1:E:171:THR:HB	1:E:226:ASN:HB2	1.97	0.46
2:F:168:PHE:HB3	2:F:250:LYS:HB3	1.97	0.46
1:I:74:VAL:HG11	1:I:82:LEU:HB3	1.98	0.46
1:I:236:ASN:OD1	1:I:314:GLU:N	2.49	0.46
1:I:236:ASN:HD21	1:I:314:GLU:H	1.62	0.46
2:J:63:ASP:HB3	2:J:64:SER:H	1.62	0.46
2:J:81:PRO:HA	2:J:84:LEU:HB2	1.97	0.46
2:J:162:LYS:HB2	2:J:220:LEU:HD21	1.98	0.46
2:J:166:GLN:HB2	2:J:167:LYS:HD2	1.97	0.46
2:J:192:HIS:CG	2:J:193:ARG:N	2.83	0.46
1:K:128:TYR:HA	1:K:133:ASN:CG	2.36	0.46
1:K:316:GLY:HA2	1:K:320:ARG:NH2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:40:GLN:HA	2:L:43:HIS:ND1	2.31	0.46
2:L:163:VAL:HG13	2:L:167:LYS:NZ	2.30	0.46
1:A:231:ARG:HH11	1:A:231:ARG:HG3	1.80	0.46
2:B:14:ASN:O	2:B:18:CYS:N	2.32	0.46
2:B:17:ARG:HG3	2:B:54:PHE:CE1	2.51	0.46
2:B:272:ILE:O	2:B:322:ARG:NH1	2.49	0.46
1:C:20:ARG:HH11	1:C:20:ARG:CA	2.27	0.46
1:C:283:PHE:CE2	1:C:310:TRP:CD2	3.03	0.46
1:C:361:TYR:O	1:O:181:ASP:HB2	2.15	0.46
2:R:39:LYS:HG2	2:R:40:GLN:N	2.29	0.46
2:R:196:ARG:HB3	2:R:206:VAL:HG22	1.98	0.46
1:O:175:THR:HG22	1:O:232:VAL:HG11	1.97	0.46
1:O:241:ASP:HA	1:O:307:VAL:O	2.16	0.46
2:P:22:ARG:NH2	2:P:321:GLN:O	2.47	0.46
1:G:15:PHE:CZ	1:G:322:VAL:HG13	2.43	0.46
1:G:42:HIS:CD2	2:F:195:LEU:HD23	2.50	0.46
1:G:81:LYS:HB3	1:G:81:LYS:HE3	1.64	0.46
2:H:10:ARG:HH11	2:H:13:ARG:HH11	1.63	0.46
2:H:140:TYR:CE1	2:H:330:VAL:HG22	2.50	0.46
1:E:243:VAL:HG22	1:E:304:MET:HB3	1.98	0.46
2:F:186:ARG:HG3	2:F:190:ALA:O	2.16	0.46
2:F:269:LEU:O	2:F:273:LEU:N	2.39	0.46
1:I:91:ILE:HD11	1:I:332:TRP:CZ3	2.51	0.46
1:I:278:LEU:HB3	1:I:282:ASP:HB2	1.97	0.46
1:K:190:HIS:HB3	1:K:196:ALA:HA	1.98	0.46
2:L:20:HIS:HA	2:L:23:LYS:HZ1	1.81	0.46
2:L:152:CYS:SG	2:L:153:THR:N	2.89	0.46
1:A:3:VAL:HG23	1:A:26:ASP:H	1.79	0.46
1:A:194:ARG:HG3	1:A:204:VAL:HG13	1.98	0.46
1:C:253:GLU:O	1:C:260:ARG:NH2	2.48	0.46
1:Q:18(A):TRP:O	1:Q:20:ARG:HB2	2.16	0.46
1:Q:175:THR:HG1	1:Q:238:SER:HA	1.81	0.46
2:R:142:HIS:HB3	2:R:335:GLN:NE2	2.30	0.46
1:O:37:VAL:HG23	1:O:73:VAL:HG11	1.98	0.46
1:O:116:VAL:HB	1:O:143:ILE:HG12	1.97	0.46
1:O:238:SER:O	1:O:311:TYR:N	2.49	0.46
1:G:20:ARG:HH11	1:G:21:LYS:HZ1	1.62	0.46
1:G:176:HIS:O	1:G:231:ARG:NE	2.37	0.46
1:G:241:ASP:OD1	1:G:308:VAL:HG22	2.15	0.46
2:H:152:CYS:HB3	2:H:319:TYR:CD2	2.51	0.46
2:H:203:LEU:C	2:H:235:PRO:HG3	2.37	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:12:GLY:O	1:E:16:LEU:HB2	2.16	0.46
2:F:103:ASP:OD2	2:F:105:ASP:HB3	2.16	0.46
1:I:150:THR:O	1:I:154:LEU:N	2.47	0.46
1:I:203:ILE:HG22	1:I:230:LEU:HD22	1.98	0.46
1:I:227:GLY:HA2	1:K:306:LYS:NZ	2.30	0.46
2:J:226:LYS:NZ	2:J:227:LEU:HD23	2.31	0.46
1:K:342:GLY:O	1:K:346:GLU:N	2.32	0.46
2:L:224:LYS:H	2:L:226:LYS:NZ	2.12	0.46
1:A:41:THR:HG23	1:A:57:VAL:HG11	1.98	0.46
1:A:77:ARG:HA	3:A:401:NAD:N1A	2.31	0.46
1:A:108:HIS:HA	1:A:111:ALA:HB3	1.97	0.46
1:A:181:ASP:OD1	1:A:181:ASP:N	2.49	0.46
1:A:182:GLN:HG2	1:A:231:ARG:HD2	1.98	0.46
1:A:236:ASN:OD1	1:A:313:ASN:HB2	2.15	0.46
1:A:314:GLU:O	1:A:317:TYR:HB3	2.16	0.46
2:B:168:PHE:HA	2:B:250:LYS:HE2	1.98	0.46
2:B:171:ILE:O	2:B:226:LYS:HD2	2.15	0.46
2:B:209:SER:O	2:B:214:LYS:NZ	2.42	0.46
2:B:245:VAL:HG11	2:B:306:MET:HE2	1.98	0.46
1:C:158:VAL:HG22	1:C:242:LEU:HD22	1.98	0.46
1:C:171:THR:O	1:C:243:VAL:N	2.34	0.46
1:C:178:TYR:CE1	1:C:235:PRO:HA	2.50	0.46
2:D:35:THR:HB	2:D:79:ARG:NH1	2.30	0.46
1:Q:18(B):HIS:NE2	1:Q:67:ASP:OD2	2.48	0.46
2:R:15:PHE:CE2	2:R:324:VAL:HA	2.50	0.46
2:R:322:ARG:HA	2:R:325:ASP:OD2	2.16	0.46
1:O:182:GLN:NE2	1:O:231:ARG:HG3	2.31	0.46
2:P:11:ILE:HG12	3:P:401:NAD:PN	2.55	0.46
2:P:43:HIS:O	2:P:47:TYR:N	2.43	0.46
2:P:96:GLU:OE2	2:P:99:GLY:N	2.49	0.46
2:P:127:ASP:N	2:P:127:ASP:OD1	2.49	0.46
1:G:162:ASP:CA	1:G:166:GLY:H	2.29	0.46
1:G:220:GLN:OE1	1:G:220:GLN:N	2.47	0.46
1:G:300:MET:HA	1:E:226:ASN:OD1	2.15	0.46
2:H:131:TYR:CZ	2:H:140:TYR:HA	2.51	0.46
2:H:192:HIS:CE1	2:H:197:ARG:HD2	2.51	0.46
1:E:1:LEU:HB3	1:E:90:ASP:OD2	2.15	0.46
1:E:139:HIS:CE1	1:E:332:TRP:HD1	2.28	0.46
2:F:1:LEU:HD12	2:F:1:LEU:HA	1.78	0.46
2:F:101:PHE:CG	2:F:106:GLY:HA3	2.51	0.46
2:F:152:CYS:HB2	2:F:315:ASN:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:175:MET:HG3	2:F:244:LEU:HD13	1.98	0.46
2:J:185:GLN:HG3	2:J:197:ARG:HG2	1.98	0.46
2:J:283:ILE:C	2:J:285:PHE:H	2.19	0.46
1:K:91:ILE:HG12	1:K:328:VAL:HG11	1.98	0.46
1:A:15:PHE:HE1	1:A:322:VAL:HG22	1.81	0.46
1:A:194:ARG:NH1	1:A:204:VAL:HA	2.31	0.46
2:B:3:VAL:HG13	2:B:93:LEU:O	2.16	0.46
2:B:167:LYS:O	2:B:250:LYS:NZ	2.40	0.46
2:B:215:ALA:HB1	2:B:219:VAL:HG13	1.97	0.46
1:C:3:VAL:O	1:C:27:VAL:HA	2.16	0.46
1:C:168:VAL:HB	1:C:245:ASN:OD1	2.15	0.46
1:C:175:THR:OG1	1:C:176:HIS:N	2.47	0.46
1:C:231:ARG:HA	1:C:231:ARG:HD2	1.79	0.46
1:C:241:ASP:OD1	1:C:307:VAL:N	2.46	0.46
2:D:179:HIS:O	2:D:233:ARG:HA	2.15	0.46
1:Q:167:ILE:HA	1:Q:246:ILE:HA	1.97	0.46
1:Q:287:ASP:HB3	1:Q:319:GLN:HG3	1.96	0.46
2:R:192:HIS:CE1	2:R:197:ARG:HD2	2.51	0.46
1:O:135:LYS:C	1:O:331:LYS:HZ1	2.14	0.46
2:P:34:ASP:HA	3:P:401:NAD:H2A	1.98	0.46
2:P:41:ALA:HA	2:P:44:LEU:HB2	1.98	0.46
2:P:154:THR:OG1	2:P:212:ALA:N	2.49	0.46
2:P:159:PRO:O	2:P:163:VAL:HG23	2.16	0.46
2:P:211:GLY:HA2	2:P:214:LYS:HB2	1.97	0.46
1:G:0:LYS:HG2	1:G:24:PRO:C	2.36	0.46
1:G:3:VAL:CG2	1:G:25:LEU:HB2	2.46	0.46
1:G:37:VAL:HG13	1:G:41:THR:HG23	1.98	0.46
1:G:150:THR:OG1	1:G:151:THR:N	2.49	0.46
2:H:222:ASN:O	2:H:226:LYS:NZ	2.49	0.46
1:E:90:ASP:HA	1:E:114:LYS:HG2	1.98	0.46
1:E:166:GLY:HA3	1:E:247:GLU:HB3	1.98	0.46
2:F:17:ARG:NH2	2:F:51:LEU:O	2.49	0.46
2:F:18:CYS:O	2:F:22:ARG:HG2	2.16	0.46
2:F:245:VAL:HG13	2:F:307:VAL:C	2.36	0.46
2:F:258:ASN:O	2:F:262:ARG:HD2	2.15	0.46
1:I:41:THR:HG23	1:I:57:VAL:HG11	1.98	0.45
2:J:157:LEU:HA	2:J:160:PHE:CE1	2.50	0.45
2:J:199:ARG:HH22	1:K:13:ARG:HH22	1.64	0.45
1:K:134:GLU:HG2	1:K:135:LYS:H	1.81	0.45
2:L:231:ALA:O	2:L:232:LEU:HD23	2.16	0.45
1:A:94:GLU:O	1:A:119:THR:OG1	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:154:LEU:HD12	1:A:157:PHE:CE2	2.52	0.45
1:A:242:LEU:HD11	1:A:244:VAL:HG13	1.97	0.45
1:A:248:LYS:HG2	1:A:248(A):VAL:HG12	1.97	0.45
1:A:272:ASP:HB2	1:A:288:PHE:CD1	2.50	0.45
1:A:283:PHE:CE2	1:A:310:TRP:CG	3.04	0.45
2:B:1:LEU:HG	2:B:92:ASP:OD2	2.17	0.45
2:B:32:ILE:HG12	2:B:74:LYS:O	2.16	0.45
2:B:226:LYS:NZ	2:B:227:LEU:HD23	2.30	0.45
2:B:279:PRO:HB2	2:D:196:ARG:HG3	1.98	0.45
1:C:96:THR:HA	3:C:401:NAD:O4B	2.17	0.45
1:C:137:TYR:HE2	1:C:327:LEU:HG	1.80	0.45
1:C:236:ASN:H	1:C:284:ARG:NH2	2.13	0.45
2:D:118:VAL:HB	2:D:146:ILE:HG12	1.97	0.45
2:D:239:VAL:HG13	2:D:313:TYR:O	2.16	0.45
1:Q:42:HIS:HA	1:Q:46:TYR:CD2	2.51	0.45
1:Q:172:MET:HB3	1:Q:242:LEU:HA	1.98	0.45
2:R:152:CYS:HB3	2:R:319:TYR:CG	2.52	0.45
2:R:187:LEU:HD23	1:O:180:GLY:HA2	1.98	0.45
2:P:273:LEU:HD13	2:P:291:SER:HB2	1.98	0.45
1:G:11:ILE:HA	1:G:14:ASN:HD22	1.81	0.45
1:G:149:CYS:O	1:G:153:CYS:N	2.27	0.45
1:G:190:HIS:HB3	1:G:196:ALA:HA	1.97	0.45
1:G:305:VAL:HG12	1:G:307:VAL:HG22	1.98	0.45
1:E:270:VAL:O	1:E:289:SER:N	2.48	0.45
1:E:322:VAL:HG12	1:E:326:ASP:OD1	2.16	0.45
2:F:116:LYS:O	2:F:145:THR:OG1	2.17	0.45
2:F:181:TYR:CD2	2:F:235:PRO:HA	2.48	0.45
2:F:211:GLY:HA2	2:F:214:LYS:HB2	1.98	0.45
1:I:5:ILE:HG21	1:I:8:PHE:HA	1.98	0.45
1:K:176:HIS:C	1:K:232:VAL:HG22	2.37	0.45
1:K:212:LYS:HE3	1:K:223:GLY:H	1.81	0.45
2:L:1:LEU:HD21	2:L:334:TRP:CG	2.51	0.45
2:L:32:ILE:HD13	2:L:33:ASN:N	2.31	0.45
2:L:142:HIS:H	2:L:333:LYS:CE	2.27	0.45
2:L:224:LYS:O	2:L:226:LYS:HD3	2.16	0.45
1:A:4:ALA:HB3	1:A:92:VAL:HG13	1.98	0.45
1:A:178:TYR:N	1:A:232:VAL:O	2.49	0.45
1:A:313:ASN:N	1:A:313:ASN:OD1	2.50	0.45
2:B:22:ARG:HE	2:B:321:GLN:NE2	2.13	0.45
2:B:215:ALA:HA	2:B:218:LEU:HD13	1.98	0.45
1:C:1:LEU:O	1:C:26:ASP:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:86:GLU:HG2	1:C:87:LEU:N	2.29	0.45
1:C:243:VAL:HA	1:C:305:VAL:O	2.16	0.45
1:C:272:ASP:HB3	1:C:291:THR:HA	1.99	0.45
2:D:104:ARG:HH11	2:D:146:ILE:HB	1.82	0.45
2:D:174:THR:C	2:D:244:LEU:HD12	2.36	0.45
1:Q:42:HIS:HD2	2:P:195:LEU:HB3	1.76	0.45
1:Q:58:LYS:HA	1:Q:58:LYS:NZ	2.32	0.45
1:Q:162:ASP:CA	1:Q:166:GLY:H	2.29	0.45
1:Q:221:LEU:HA	1:Q:224:LYS:NZ	2.31	0.45
2:R:173:GLY:O	2:R:228:ASN:N	2.49	0.45
2:R:210:THR:H	2:R:231:ALA:HB2	1.80	0.45
2:R:255:GLU:HA	2:R:258:ASN:OD1	2.16	0.45
1:O:246:ILE:N	1:O:303:ASP:O	2.49	0.45
2:P:131:TYR:HD2	2:P:147:ILE:HG21	1.81	0.45
2:P:257:VAL:HA	2:P:260:ALA:HB3	1.98	0.45
1:I:91:ILE:CG2	1:I:117:ILE:HG13	2.42	0.45
1:I:194:ARG:HE	1:K:277:PRO:C	2.20	0.45
2:J:238:ASN:OD1	2:J:286:ARG:HG3	2.17	0.45
1:K:18(A):TRP:HA	1:K:20:ARG:HB2	1.97	0.45
1:K:31:ASN:ND2	3:K:401:NAD:H2A	2.30	0.45
1:K:153:CYS:SG	1:K:290:SER:HA	2.56	0.45
1:K:264:ALA:HA	1:K:268:LYS:HD3	1.97	0.45
2:L:129:PRO:O	2:L:148:SER:N	2.48	0.45
1:A:173:THR:HG21	1:A:230:LEU:HG	1.97	0.45
1:A:244:VAL:HG23	1:A:305:VAL:HB	1.97	0.45
1:A:297:THR:HA	1:A:308:VAL:HG12	1.98	0.45
1:C:85:ALA:H	1:C:112:GLY:HA3	1.81	0.45
2:D:47:TYR:HA	2:D:53:THR:HA	1.98	0.45
2:D:71:LYS:HD2	2:D:71:LYS:HA	1.77	0.45
2:D:129:PRO:O	2:D:148:SER:N	2.49	0.45
2:D:156:CYS:O	2:D:159:PRO:HD2	2.16	0.45
2:D:240:SER:HB3	2:D:313:TYR:CZ	2.52	0.45
1:Q:6:ASN:ND2	1:Q:96:THR:HG23	2.31	0.45
1:Q:177:SER:OG	1:Q:237:VAL:O	2.34	0.45
2:R:39:LYS:HZ3	2:R:40:GLN:N	2.03	0.45
2:R:137:GLU:OE1	2:R:137:GLU:N	2.38	0.45
2:R:186:ARG:CZ	2:R:192:HIS:HB2	2.46	0.45
2:R:195:LEU:HD12	2:R:196:ARG:H	1.80	0.45
2:R:239:VAL:HB	2:R:286:ARG:HH22	1.82	0.45
1:O:46:TYR:HA	1:O:52:THR:HA	1.97	0.45
1:O:105:ALA:HB1	1:O:116:VAL:HG11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:221:LEU:HA	1:O:224:LYS:HE3	1.98	0.45
2:P:15:PHE:O	2:P:18:CYS:HB2	2.17	0.45
2:P:50:ILE:HG23	2:P:286:ARG:NH1	2.23	0.45
2:P:96:GLU:O	2:P:120:ILE:HG23	2.16	0.45
2:P:308:LYS:HE3	2:P:308:LYS:HB2	1.81	0.45
1:G:58:LYS:HA	1:G:58:LYS:NZ	2.31	0.45
2:H:1:LEU:HA	2:H:92:ASP:OD2	2.16	0.45
2:H:194:ASP:OD2	2:H:197:ARG:HG3	2.16	0.45
2:F:11:ILE:HD12	2:F:316:GLU:HA	1.98	0.45
1:I:190:HIS:CE1	1:I:192:ASP:HB3	2.51	0.45
2:J:16:LEU:HG	2:J:19:TRP:CE3	2.51	0.45
2:J:39:LYS:NZ	2:J:40:GLN:HG3	2.30	0.45
2:J:272:ILE:HA	2:J:322:ARG:CZ	2.46	0.45
1:K:362:GLU:HA	1:E:181:ASP:HB2	1.98	0.45
2:L:156:CYS:O	2:L:159:PRO:HD2	2.16	0.45
2:L:240:SER:N	2:L:315:ASN:OD1	2.49	0.45
1:A:40:ALA:HA	1:A:43:LEU:HB2	1.97	0.45
1:A:87:LEU:HB2	1:A:89:ILE:HG12	1.99	0.45
1:A:107:LYS:O	1:A:111:ALA:N	2.48	0.45
1:A:116:VAL:HB	1:A:143:ILE:HG23	1.97	0.45
1:A:172:MET:HA	1:A:241:ASP:OD1	2.15	0.45
1:A:306:LYS:NZ	1:C:171:THR:OG1	2.34	0.45
2:B:119:LEU:HD12	2:B:147:ILE:HG13	1.98	0.45
2:B:152:CYS:SG	2:B:153:THR:N	2.89	0.45
2:B:181:TYR:N	2:B:234:VAL:O	2.50	0.45
1:C:8:PHE:HB2	1:C:30:VAL:HG12	1.97	0.45
2:D:5:ILE:HA	2:D:94:VAL:HG13	1.99	0.45
1:Q:92:VAL:O	1:Q:117:ILE:N	2.39	0.45
1:Q:102:GLY:N	1:Q:103:PRO:HD2	2.31	0.45
1:Q:108:HIS:CD2	1:Q:108:HIS:N	2.85	0.45
1:Q:190:HIS:NE2	1:Q:192:ASP:HB3	2.31	0.45
2:R:205:ILE:HG23	2:R:207:PRO:HD3	1.98	0.45
2:R:282:SER:OG	2:P:204:ASN:ND2	2.50	0.45
2:R:314:ASP:OD2	2:R:317:TRP:HB3	2.17	0.45
1:O:8:PHE:CE2	1:O:44:LEU:HB2	2.52	0.45
1:O:72:LYS:HG2	1:O:73:VAL:H	1.81	0.45
1:O:76:ASN:HB3	1:O:82:LEU:HD11	1.97	0.45
2:P:87:GLY:HA2	2:P:114:GLY:HA3	1.97	0.45
2:P:315:ASN:OD1	2:P:315:ASN:N	2.49	0.45
1:G:40:ALA:O	1:G:43:LEU:HB2	2.16	0.45
1:G:154:LEU:O	1:G:158:VAL:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:202:ASN:CG	1:E:279:VAL:HB	2.37	0.45
1:G:203:ILE:O	1:G:205:PRO:HD3	2.16	0.45
1:G:230:LEU:O	1:G:232:VAL:HG13	2.15	0.45
1:G:235:PRO:HG2	1:G:284:ARG:HH22	1.81	0.45
2:H:44:LEU:HA	1:E:197:ARG:HH12	1.81	0.45
2:H:50:ILE:HD13	2:H:238:ASN:CG	2.36	0.45
1:E:4:ALA:HB3	1:E:92:VAL:HG22	1.99	0.45
1:E:139:HIS:ND1	1:E:333:PRO:HD2	2.31	0.45
1:E:194:ARG:NH1	1:E:205:PRO:HD2	2.31	0.45
1:E:231:ARG:HA	1:E:231:ARG:HD2	1.61	0.45
1:E:297:THR:HG23	1:E:306:LYS:O	2.15	0.45
2:F:86:TRP:HB2	2:F:115:ALA:N	2.32	0.45
2:F:86:TRP:HD1	2:F:113:ALA:O	1.99	0.45
2:F:153:THR:O	2:F:157:LEU:HG	2.16	0.45
2:F:157:LEU:HA	2:F:160:PHE:CZ	2.52	0.45
1:I:56:ASP:O	1:I:66:ILE:HG13	2.16	0.45
2:J:159:PRO:HA	2:J:162:LYS:HE3	1.98	0.45
2:J:204:ASN:HB3	2:L:281:VAL:HB	1.98	0.45
2:J:255:GLU:HA	2:J:258:ASN:OD1	2.16	0.45
1:K:171:THR:HB	1:K:226:ASN:HB3	1.97	0.45
2:L:106:GLY:O	2:L:110:HIS:ND1	2.49	0.45
2:L:205:ILE:CG1	2:L:234:VAL:HG12	2.46	0.45
2:L:210:THR:HG23	2:L:213:ALA:N	2.28	0.45
2:L:251:LYS:HZ2	2:L:305:ASP:HB3	1.82	0.45
2:L:325:ASP:O	2:L:329:ILE:HG13	2.17	0.45
1:A:107:LYS:HB2	1:A:108:HIS:HD2	1.81	0.45
1:A:201:LEU:HD12	1:A:202:ASN:OD1	2.17	0.45
2:B:164:LEU:HD22	2:B:170:ILE:HD11	1.97	0.45
2:B:192:HIS:HB3	2:B:198:ALA:CA	2.45	0.45
2:B:192:HIS:CD2	2:B:193:ARG:HG2	2.52	0.45
2:B:210:THR:OG1	2:B:211:GLY:N	2.50	0.45
2:B:274:SER:O	2:B:294:ILE:N	2.36	0.45
1:C:156:PRO:O	1:C:160:VAL:HG23	2.17	0.45
1:Q:169:LYS:NZ	1:O:303:ASP:OD2	2.46	0.45
1:Q:237:VAL:HA	1:Q:312:ASP:HA	1.98	0.45
1:Q:256:ASN:O	1:Q:259:PHE:HB2	2.17	0.45
2:R:195:LEU:H	2:R:195:LEU:HG	1.44	0.45
2:P:192:HIS:HB3	2:P:198:ALA:HA	1.98	0.45
2:P:255:GLU:OE2	2:P:259:ALA:N	2.49	0.45
1:G:10:ARG:C	1:G:14:ASN:HD22	2.19	0.45
2:H:137:GLU:HA	2:H:140:TYR:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:31:ASN:HA	1:E:74:VAL:HB	1.98	0.45
1:E:114:LYS:HB2	1:E:332:TRP:CH2	2.51	0.45
2:F:78:ASP:OD1	2:F:80:ASN:HB3	2.15	0.45
2:F:79:ARG:HD3	3:F:401:NAD:N6A	2.32	0.45
2:F:209:SER:HA	2:F:231:ALA:N	2.32	0.45
1:I:91:ILE:HG23	1:I:115:LYS:C	2.37	0.45
1:I:179:THR:HG23	1:I:231:ARG:HE	1.82	0.45
1:I:243:VAL:HG21	1:K:243:VAL:HG21	1.98	0.45
2:J:31:VAL:HG21	2:J:89:MET:HG2	1.98	0.45
2:J:59:LYS:HB3	2:J:67:SER:HG	1.82	0.45
2:J:92:ASP:OD1	2:J:92:ASP:N	2.49	0.45
1:K:3:VAL:O	1:K:27:VAL:HA	2.17	0.45
1:K:63:THR:OG1	1:K:72:LYS:HG3	2.17	0.45
1:K:84:TRP:HE1	1:K:108:HIS:C	2.19	0.45
2:L:124:GLY:HA3	2:L:128:ILE:HD13	1.99	0.45
1:A:8:PHE:HD1	1:A:8:PHE:HA	1.59	0.45
1:A:47:ASP:CG	1:A:49:ILE:H	2.19	0.45
1:A:274:CYS:O	1:A:294:SER:OG	2.32	0.45
2:B:132:VAL:H	2:B:136:ASN:CG	2.20	0.45
2:B:205:ILE:HG22	2:D:312:TRP:CH2	2.52	0.45
2:B:250:LYS:O	2:B:252:THR:HG22	2.17	0.45
1:C:128:TYR:CE2	1:C:141:ALA:HB2	2.52	0.45
1:C:221:LEU:HD12	1:C:224:LYS:HD2	1.99	0.45
2:D:206:VAL:O	2:D:208:THR:HG22	2.17	0.45
1:Q:11:ILE:HG13	1:Q:314:GLU:CD	2.37	0.45
2:R:160:PHE:O	2:R:164:LEU:N	2.34	0.45
1:O:211:ALA:O	1:O:225:LEU:HB3	2.16	0.45
2:P:104:ARG:H	2:P:127:ASP:CG	2.19	0.45
2:P:215:ALA:HA	2:P:218:LEU:HD13	1.99	0.45
2:H:10:ARG:HA	2:H:13:ARG:HD2	1.98	0.45
2:H:142:HIS:HB2	2:H:333:LYS:HG3	1.99	0.45
2:H:306:MET:HB2	2:F:172:LYS:NZ	2.28	0.45
1:E:8:PHE:C	1:E:13:ARG:HH12	2.19	0.45
1:E:62:GLU:HB3	1:E:72:LYS:HZ3	1.82	0.45
1:E:182:GLN:OE1	1:E:182:GLN:N	2.50	0.45
1:E:204:VAL:HB	1:E:231:ARG:HB2	1.99	0.45
1:E:257:ASN:HA	1:E:260:ARG:HB2	1.98	0.45
2:F:80:ASN:HB3	2:F:83:ASN:HB3	1.98	0.45
2:F:143:ALA:N	2:F:335:GLN:HE22	2.14	0.45
2:F:238:ASN:CG	2:F:239:VAL:H	2.20	0.45
1:I:277:PRO:HB2	1:K:193:LEU:HD11	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:232:LEU:HA	2:J:232:LEU:HD23	1.74	0.45
1:K:0:LYS:N	1:K:25:LEU:O	2.46	0.45
1:K:52:THR:O	1:K:54:LYS:NZ	2.38	0.45
1:K:288:PHE:O	1:K:320:ARG:NH1	2.50	0.45
2:L:8:PHE:HZ	2:L:45:LEU:HD13	1.81	0.45
1:A:69:LYS:HD3	1:A:69:LYS:HA	1.69	0.45
2:B:272:ILE:O	2:B:291:SER:OG	2.33	0.45
1:C:161:LEU:HB3	1:C:167:ILE:HD11	1.97	0.45
2:D:58:VAL:CB	2:D:68:VAL:HA	2.47	0.45
1:Q:3:VAL:HG21	1:Q:25:LEU:HB2	1.97	0.45
1:Q:63:THR:OG1	1:Q:72:LYS:NZ	2.30	0.45
1:Q:89:ILE:O	1:Q:113:ALA:HA	2.17	0.45
1:Q:241:ASP:CG	1:Q:306:LYS:HG3	2.37	0.45
1:Q:314:GLU:HG2	3:Q:402:NAD:N7N	2.32	0.45
2:R:27:LEU:HD11	2:R:328:ASP:HA	1.99	0.45
2:R:290:VAL:O	2:R:292:SER:N	2.50	0.45
1:O:17:ARG:CZ	1:O:53:PHE:HA	2.47	0.45
1:O:98:VAL:HG21	3:O:401:NAD:H61A	1.80	0.45
2:P:22:ARG:NH2	2:P:324:VAL:HB	2.31	0.45
1:G:221:LEU:HA	1:G:224:LYS:NZ	2.32	0.45
1:G:237:VAL:HA	1:G:312:ASP:HA	1.99	0.45
1:G:312:ASP:CG	1:G:313:ASN:N	2.70	0.45
2:H:228:ASN:HB3	2:F:302:MET:SD	2.57	0.45
1:I:7:GLY:H	1:I:31:ASN:H	1.65	0.45
1:I:43:LEU:HA	2:L:199:ARG:HH11	1.81	0.45
1:I:139:HIS:CE1	1:I:328:VAL:HG12	2.52	0.45
1:I:179:THR:OG1	1:I:231:ARG:NH2	2.49	0.45
2:J:46:LYS:NZ	2:J:46:LYS:O	2.36	0.45
2:J:205:ILE:CD1	2:J:232:LEU:HB3	2.47	0.45
2:J:220:LEU:HD13	2:J:223:LEU:HD22	1.99	0.45
2:J:279:PRO:HD2	2:L:195:LEU:HD22	1.99	0.45
2:J:300:MET:HB3	2:J:308:LYS:HB3	1.99	0.45
1:K:173:THR:HG23	1:K:228:ILE:HD13	1.99	0.45
1:K:204:VAL:HB	1:K:231:ARG:HG2	1.99	0.45
1:K:212:LYS:O	1:K:215:SER:OG	2.26	0.45
2:L:47:TYR:HA	2:L:53:THR:HA	1.99	0.45
2:L:127:ASP:OD1	2:L:127:ASP:N	2.42	0.45
2:L:323:VAL:O	2:L:327:ALA:N	2.43	0.45
1:A:56:ASP:O	1:A:66:ILE:HG13	2.16	0.45
1:A:104:GLY:HA2	1:A:107:LYS:NZ	2.31	0.45
1:A:113:ALA:HB1	1:A:115:LYS:O	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:317:TYR:O	1:A:321:VAL:HG23	2.15	0.45
1:A:324:LEU:HG	1:A:327:LEU:HD22	1.99	0.45
2:B:59:LYS:O	2:B:66:ILE:HG22	2.17	0.45
2:B:59:LYS:HD2	2:B:59:LYS:HA	1.67	0.45
2:B:199:ARG:HH22	1:C:13:ARG:HH22	1.65	0.45
2:B:263:GLU:OE1	2:B:267:ASN:ND2	2.29	0.45
1:C:119:THR:HA	1:C:317:TYR:HE2	1.81	0.45
1:C:361:TYR:C	1:O:195:ARG:HH12	2.15	0.45
2:D:106:GLY:O	2:D:110:HIS:ND1	2.49	0.45
2:D:154:THR:HA	2:D:157:LEU:HG	1.98	0.45
2:D:325:ASP:O	2:D:329:ILE:HG13	2.17	0.45
1:Q:125:ILE:HD12	1:Q:125:ILE:H	1.82	0.45
1:Q:204:VAL:N	1:Q:231:ARG:O	2.49	0.45
2:R:103:ASP:OD2	2:R:105:ASP:HB3	2.17	0.45
2:R:155:ASN:HD21	2:R:322:ARG:HB2	1.82	0.45
1:O:115:LYS:HD3	1:O:142:ASN:HA	1.98	0.45
2:P:0:LYS:H3	2:P:26:PRO:C	2.19	0.45
2:P:84:LEU:HB2	2:P:86:TRP:CZ2	2.52	0.45
2:P:143:ALA:N	2:P:335:GLN:HE22	2.15	0.45
2:P:239:VAL:HA	2:P:315:ASN:OD1	2.17	0.45
1:G:10:ARG:O	1:G:14:ASN:N	2.49	0.45
1:G:296:LEU:HD13	1:E:205:PRO:HB2	1.99	0.45
2:H:165:ASP:HA	2:H:169:GLY:CA	2.47	0.45
1:E:18(B):HIS:HE1	1:E:67:ASP:HB2	1.81	0.45
1:E:57:VAL:HG22	1:E:66:ILE:HG23	1.99	0.45
1:E:183:ARG:HG2	1:E:187:ALA:N	2.30	0.45
2:F:127:ASP:N	2:F:127:ASP:OD1	2.50	0.45
2:F:197:ARG:NH2	2:F:208:THR:OG1	2.48	0.45
2:F:220:LEU:HD23	2:F:220:LEU:HA	1.71	0.45
2:F:255:GLU:OE2	2:F:259:ALA:N	2.50	0.45
1:I:5:ILE:HG21	1:I:8:PHE:CD1	2.52	0.45
2:J:32:ILE:O	2:J:75:VAL:HA	2.17	0.45
1:K:158:VAL:HG22	1:K:242:LEU:HD22	1.99	0.45
1:K:183:ARG:HB3	1:K:185:LEU:O	2.16	0.45
1:A:91:ILE:CG2	1:A:117:ILE:HG13	2.47	0.45
1:A:191:ARG:HA	2:D:40:GLN:NE2	2.31	0.45
2:B:160:PHE:HB2	2:B:261:PHE:CZ	2.52	0.45
2:B:168:PHE:CZ	2:B:257:VAL:HG23	2.52	0.45
2:B:269:LEU:HD22	2:B:273:LEU:HD23	1.98	0.45
1:C:16:LEU:HD12	1:C:16:LEU:HA	1.76	0.45
1:C:58:LYS:O	1:C:64:PHE:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:178:TYR:HD2	1:C:233:PRO:HA	1.81	0.45
2:D:16:LEU:HD22	2:D:45:LEU:HD11	1.98	0.45
2:D:89:MET:N	2:D:89:MET:SD	2.90	0.45
2:D:131:TYR:HA	2:D:136:ASN:HB2	1.99	0.45
2:D:185:GLN:NE2	2:D:185:GLN:H	2.14	0.45
2:D:196:ARG:HB3	2:D:206:VAL:HG22	1.99	0.45
2:D:304:ASP:OD1	2:D:304:ASP:N	2.50	0.45
1:Q:175:THR:HG23	1:Q:239:VAL:O	2.17	0.45
1:Q:244:VAL:O	1:Q:304:MET:HA	2.17	0.45
1:O:8:PHE:CZ	1:O:44:LEU:HB2	2.52	0.45
1:O:20:ARG:CZ	1:O:322:VAL:HG21	2.47	0.45
1:O:31:ASN:ND2	1:O:76:ASN:H	2.15	0.45
1:O:101:ASP:HB3	1:O:122(A):LYS:HZ1	1.82	0.45
1:O:167:ILE:HG22	1:O:224:LYS:HD3	1.99	0.45
1:O:241:ASP:OD1	1:O:243:VAL:HG22	2.17	0.45
1:O:314:GLU:HB2	3:O:401:NAD:H72N	1.82	0.45
2:P:294:ILE:HG22	2:P:299:THR:HG21	1.97	0.45
1:G:182:GLN:HB3	1:G:195:ARG:HA	1.98	0.45
1:G:282:ASP:OD1	2:H:47:TYR:CB	2.64	0.45
2:H:164:LEU:HD22	2:H:170:ILE:HD11	1.98	0.45
2:H:276:CYS:N	2:H:293:THR:HG23	2.32	0.45
1:E:31:ASN:ND2	1:E:76:ASN:H	2.15	0.45
1:E:80:LEU:HD11	1:E:107:LYS:HE3	1.99	0.45
1:E:84:TRP:CB	1:E:89:ILE:HB	2.45	0.45
1:E:109:ILE:HA	1:E:113:ALA:HB3	1.99	0.45
1:E:139:HIS:ND1	1:E:331:LYS:O	2.46	0.45
1:E:194:ARG:HB3	1:E:204:VAL:HG13	1.98	0.45
1:E:279:VAL:HA	1:E:310:TRP:CH2	2.52	0.45
2:F:39:LYS:O	2:F:43:HIS:CG	2.70	0.45
2:F:104:ARG:NH2	2:F:128:ILE:HA	2.19	0.45
2:F:148:SER:OG	2:F:149:ASN:N	2.50	0.45
2:F:156:CYS:SG	2:F:157:LEU:N	2.90	0.45
2:F:171:ILE:HG22	2:F:172:LYS:HG3	1.99	0.45
2:F:281:VAL:N	2:F:284:ASP:OD2	2.34	0.45
3:F:401:NAD:O3B	3:F:401:NAD:O3D	2.35	0.45
1:I:86:GLU:OE1	1:I:87:LEU:HG	2.16	0.45
1:I:108:HIS:N	1:I:108:HIS:HD2	2.11	0.45
1:I:175:THR:N	1:I:239:VAL:O	2.49	0.45
1:I:292:ILE:HG12	1:I:309:ALA:CB	2.47	0.45
2:J:1:LEU:HG	2:J:92:ASP:OD2	2.17	0.45
2:J:210:THR:OG1	2:J:211:GLY:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:42:HIS:HE1	2:L:280:LEU:HD13	1.82	0.45
1:K:287:ASP:HB3	1:K:315:TRP:HZ2	1.82	0.45
1:A:12:GLY:O	1:A:15:PHE:HB3	2.17	0.45
1:A:57:VAL:HG13	1:A:66:ILE:HB	1.98	0.45
1:A:139:HIS:NE2	1:A:333:PRO:HD3	2.32	0.45
2:B:1:LEU:HB2	2:B:26:PRO:O	2.17	0.45
2:B:197:ARG:HG3	2:B:206:VAL:HG11	1.98	0.45
2:B:232:LEU:HA	2:B:232:LEU:HD23	1.73	0.45
2:B:277:ASP:HB3	2:B:297:SER:HB3	1.98	0.45
2:B:283:ILE:H	2:D:204:ASN:ND2	2.15	0.45
2:D:257:VAL:O	2:D:261:PHE:N	2.50	0.45
2:D:316:GLU:CD	2:D:316:GLU:N	2.70	0.45
1:Q:220:GLN:OE1	1:Q:220:GLN:N	2.47	0.45
1:Q:332:TRP:CD2	1:Q:333:PRO:HD2	2.52	0.45
2:R:205:ILE:HA	2:R:235:PRO:HD3	1.98	0.45
1:O:2:LYS:HE3	1:O:88:GLY:O	2.16	0.45
1:O:203:ILE:HG13	1:O:232:VAL:HG12	1.98	0.45
1:O:212:LYS:HB2	1:O:212:LYS:HE2	1.74	0.45
2:P:76:VAL:HG23	2:P:84:LEU:HD22	1.98	0.45
2:P:272:ILE:HA	2:P:322:ARG:CZ	2.48	0.45
1:G:76:ASN:HB3	1:G:82:LEU:HD21	1.99	0.45
1:G:316:GLY:O	1:G:320:ARG:HG2	2.16	0.45
2:H:152:CYS:SG	3:H:401:NAD:N7N	2.80	0.45
2:H:186:ARG:HB2	2:H:198:ALA:O	2.17	0.45
2:H:213:ALA:HB1	2:H:228:ASN:ND2	2.32	0.45
2:H:255:GLU:HA	2:H:258:ASN:OD1	2.16	0.45
2:F:17:ARG:CZ	2:F:54:PHE:HA	2.46	0.45
2:F:41:ALA:HA	2:F:44:LEU:HB2	1.98	0.45
1:I:165:LEU:HD23	1:I:248:LYS:NZ	2.32	0.44
1:I:169:LYS:HE3	1:K:300:MET:HG2	1.99	0.44
2:J:1:LEU:O	2:J:28:ASP:N	2.50	0.44
2:J:4:ALA:O	2:J:94:VAL:HA	2.17	0.44
2:J:14:ASN:HD21	2:J:317:TRP:HB2	1.82	0.44
2:J:203:LEU:HA	2:J:235:PRO:HG2	1.99	0.44
1:K:240:VAL:O	1:K:308:VAL:HA	2.17	0.44
1:K:291:THR:O	1:K:310:TRP:N	2.48	0.44
2:L:234:VAL:O	2:L:236:THR:N	2.46	0.44
1:A:182:GLN:HA	1:A:195:ARG:HG2	1.99	0.44
2:B:92:ASP:HA	2:B:116:LYS:HB2	2.00	0.44
2:B:157:LEU:HA	2:B:160:PHE:CE1	2.52	0.44
2:B:157:LEU:HD12	2:B:158:ALA:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:10:ARG:O	1:C:13:ARG:HG2	2.17	0.44
1:C:128:TYR:HA	1:C:133:ASN:CG	2.36	0.44
1:C:139:HIS:HE1	1:C:332:TRP:CD2	2.35	0.44
1:C:144:ILE:H	1:C:144:ILE:HG13	1.60	0.44
1:C:218:LEU:HB3	1:C:221:LEU:HD23	1.99	0.44
2:D:8:PHE:HZ	2:D:45:LEU:HD13	1.81	0.44
2:D:57:ASP:O	2:D:69:ASP:CG	2.56	0.44
2:D:60:THR:CB	2:D:66:ILE:HG23	2.46	0.44
1:Q:197:ARG:HG3	1:O:279:VAL:HG21	1.98	0.44
2:R:5:ILE:HD12	2:R:94:VAL:HA	2.00	0.44
2:R:18:CYS:O	2:R:22:ARG:HG2	2.17	0.44
1:O:81:LYS:HE3	1:O:81:LYS:HB3	1.55	0.44
1:O:117:ILE:HA	1:O:144:ILE:HG12	1.99	0.44
1:O:172:MET:N	1:O:242:LEU:HD12	2.32	0.44
1:O:192:ASP:OD2	1:O:194:ARG:HB2	2.17	0.44
1:O:293:ASP:HB3	1:O:308:VAL:HG12	1.98	0.44
2:P:1:LEU:O	2:P:3:VAL:HG23	2.17	0.44
2:P:119:LEU:O	2:P:120:ILE:HD13	2.16	0.44
2:P:189:ASP:HA	2:P:198:ALA:O	2.17	0.44
1:G:15:PHE:CD1	1:G:321:VAL:HB	2.52	0.44
1:G:20:ARG:HH21	1:G:319:GLN:HE21	1.65	0.44
1:G:20:ARG:HH21	1:G:319:GLN:NE2	2.15	0.44
1:G:353:PRO:O	1:G:355:ASP:N	2.50	0.44
1:E:211:ALA:HB3	1:E:212:LYS:NZ	2.32	0.44
1:E:272:ASP:HB3	1:E:291:THR:HG23	1.99	0.44
2:F:0:LYS:HZ2	2:F:1:LEU:HD22	1.82	0.44
2:F:119:LEU:O	2:F:120:ILE:HD13	2.17	0.44
2:F:163:VAL:O	2:F:166:GLN:HB2	2.17	0.44
2:F:294:ILE:HG22	2:F:299:THR:HG21	1.99	0.44
1:I:204:VAL:HA	1:I:205:PRO:HD2	1.83	0.44
2:J:248:VAL:HG22	2:J:305:ASP:O	2.16	0.44
2:J:306:MET:HE3	2:L:247:GLN:HB2	1.99	0.44
1:K:126:PRO:HB2	1:K:128:TYR:CE2	2.53	0.44
1:K:221:LEU:HB3	1:K:224:LYS:HB3	1.99	0.44
1:K:238:SER:HB2	1:K:311:TYR:CZ	2.52	0.44
2:L:10:ARG:H	2:L:10:ARG:HD2	1.82	0.44
2:L:178:THR:O	2:L:240:SER:OG	2.23	0.44
1:A:128:TYR:HD1	1:A:133:ASN:O	2.01	0.44
1:A:165:LEU:HD23	1:A:248:LYS:NZ	2.32	0.44
1:A:168:VAL:HB	1:A:245:ASN:CG	2.37	0.44
1:A:169:LYS:HZ1	1:C:301:GLY:HA3	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:132:VAL:H	2:B:136:ASN:HB2	1.82	0.44
2:B:182:THR:HG1	2:B:185:GLN:NE2	2.15	0.44
2:B:220:LEU:HD13	2:B:223:LEU:HD13	2.00	0.44
2:B:325:ASP:O	2:B:329:ILE:HG13	2.17	0.44
1:C:118:ILE:O	1:C:146:ASN:ND2	2.49	0.44
1:C:159:LYS:HG2	1:C:163:GLU:CD	2.38	0.44
1:C:236:ASN:HD21	1:C:312:ASP:CG	2.19	0.44
2:D:39:LYS:HE2	2:D:40:GLN:HE21	1.82	0.44
2:D:272:ILE:O	2:D:291:SER:OG	2.22	0.44
1:Q:37:VAL:HG13	1:Q:41:THR:HG23	1.98	0.44
1:Q:292:ILE:HA	1:Q:309:ALA:HA	1.99	0.44
1:O:149:CYS:SG	1:O:313:ASN:HA	2.57	0.44
2:P:54:PHE:C	2:P:56:ALA:N	2.70	0.44
2:P:186:ARG:HG3	2:P:190:ALA:O	2.18	0.44
2:P:208:THR:O	2:P:230:ILE:HB	2.17	0.44
2:P:239:VAL:N	2:P:316:GLU:OE2	2.50	0.44
1:G:1:LEU:HD12	1:G:1:LEU:H	1.82	0.44
1:G:96:THR:HG22	3:G:401:NAD:C4A	2.47	0.44
1:G:183:ARG:HH21	1:G:188:SER:C	2.19	0.44
1:G:312:ASP:OD2	1:G:314:GLU:N	2.44	0.44
2:H:159:PRO:HA	2:H:162:LYS:HE3	1.98	0.44
2:H:186:ARG:HD2	2:H:190:ALA:HB3	1.99	0.44
2:H:205:ILE:HD11	2:H:232:LEU:HB3	2.00	0.44
1:E:84:TRP:NE1	1:E:111:ALA:HB3	2.32	0.44
1:I:226:ASN:OD1	1:I:227:GLY:N	2.50	0.44
2:J:3:VAL:HG13	2:J:93:LEU:O	2.17	0.44
1:K:173:THR:HA	1:K:228:ILE:O	2.17	0.44
1:K:272:ASP:HB2	1:K:288:PHE:CG	2.52	0.44
1:K:275:ASP:HA	1:K:294:SER:OG	2.17	0.44
2:L:83:ASN:OD1	2:L:83:ASN:N	2.49	0.44
2:L:273:LEU:HD13	2:L:292:SER:H	1.80	0.44
1:A:117:ILE:HA	1:A:144:ILE:HG23	1.98	0.44
1:A:190:HIS:O	1:A:196:ALA:HB2	2.18	0.44
2:B:177:THR:HA	2:B:242:VAL:HA	1.97	0.44
2:B:195:LEU:HD13	2:D:279:PRO:HG3	1.99	0.44
2:B:248:VAL:HG22	2:B:305:ASP:O	2.18	0.44
1:C:72:LYS:HG2	1:C:73:VAL:N	2.32	0.44
1:C:191:ARG:CZ	1:C:191:ARG:HB3	2.47	0.44
1:C:345:LEU:O	1:C:348:PHE:N	2.50	0.44
2:D:149:ASN:HD21	2:D:155:ASN:HB2	1.81	0.44
2:D:283:ILE:HG23	2:D:284:ASP:OD1	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:0:LYS:H3	1:Q:24:PRO:C	2.18	0.44
2:R:180:SER:OG	2:R:181:TYR:N	2.50	0.44
2:R:250:LYS:HE2	2:R:250:LYS:HB3	1.83	0.44
1:O:64:PHE:HE1	1:O:66:ILE:HD11	1.82	0.44
2:P:96:GLU:CD	2:P:99:GLY:H	2.20	0.44
2:P:185:GLN:CG	2:P:233:ARG:HD3	2.47	0.44
1:G:167:ILE:HA	1:G:246:ILE:HA	1.99	0.44
1:G:175:THR:OG1	1:G:238:SER:HA	2.18	0.44
1:G:244:VAL:O	1:G:304:MET:HA	2.16	0.44
2:H:3:VAL:HG13	2:H:93:LEU:O	2.18	0.44
2:H:4:ALA:O	2:H:5:ILE:HD12	2.17	0.44
2:H:81:PRO:HA	2:H:84:LEU:HB2	1.98	0.44
2:H:101:PHE:HZ	3:H:401:NAD:H61A	1.64	0.44
2:H:245:VAL:HA	2:H:308:LYS:HA	1.98	0.44
1:E:179:THR:N	1:E:182:GLN:HE22	2.12	0.44
1:E:320:ARG:H	1:E:320:ARG:HG2	1.51	0.44
2:F:120:ILE:O	2:F:148:SER:OG	2.35	0.44
2:F:196:ARG:CZ	2:F:207:PRO:HD2	2.47	0.44
1:I:274:CYS:O	1:I:294:SER:OG	2.34	0.44
2:J:5:ILE:O	2:J:33:ASN:N	2.47	0.44
2:J:17:ARG:HG3	2:J:54:PHE:CE1	2.52	0.44
2:J:47:TYR:HA	2:J:53:THR:HA	1.98	0.44
2:J:97:GLY:O	3:J:401:NAD:H52A	2.17	0.44
2:J:178:THR:N	2:J:241:VAL:O	2.32	0.44
1:K:5:ILE:O	1:K:30:VAL:HA	2.17	0.44
1:K:47:ASP:H	1:K:52:THR:HA	1.82	0.44
1:K:129:VAL:H	1:K:133:ASN:ND2	2.16	0.44
1:K:276:ILE:O	1:K:278:LEU:HG	2.16	0.44
2:L:39:LYS:HD2	2:L:43:HIS:HE1	1.83	0.44
1:A:204:VAL:HB	1:A:231:ARG:HB2	1.99	0.44
2:B:17:ARG:NH1	2:B:52:GLY:O	2.46	0.44
2:B:210:THR:HB	2:B:233:ARG:HH22	1.82	0.44
2:B:244:LEU:HD23	2:B:309:VAL:HG11	1.99	0.44
2:B:267:ASN:OD1	2:B:268:GLU:N	2.50	0.44
1:C:13:ARG:HB2	1:C:44:LEU:HA	2.00	0.44
1:C:93:ILE:HD13	1:C:117:ILE:HB	1.99	0.44
1:C:194:ARG:HG3	1:C:206:THR:OG1	2.17	0.44
1:C:239:VAL:HG23	1:C:309:ALA:C	2.38	0.44
1:C:316:GLY:O	1:C:320:ARG:HG2	2.17	0.44
2:D:50:ILE:HG23	2:D:286:ARG:CZ	2.47	0.44
2:D:186:ARG:CZ	2:D:192:HIS:HB2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:186:ARG:NE	2:D:191:SER:O	2.50	0.44
1:Q:94:GLU:CD	1:Q:97:GLY:H	2.20	0.44
2:R:208:THR:HG21	2:R:233:ARG:NE	2.33	0.44
2:R:238:ASN:ND2	2:R:286:ARG:HH12	2.15	0.44
2:R:263:GLU:HA	2:R:266:ASP:HB2	2.00	0.44
2:R:276:CYS:N	2:R:293:THR:HG23	2.32	0.44
2:P:39:LYS:HG2	2:P:40:GLN:N	2.32	0.44
2:P:140:TYR:HE2	2:P:333:LYS:HD3	1.82	0.44
2:P:194:ASP:OD2	2:P:197:ARG:HG3	2.18	0.44
2:P:224:LYS:O	2:P:226:LYS:HG3	2.18	0.44
1:G:3:VAL:HB	1:G:27:VAL:HA	2.00	0.44
1:G:169:LYS:HZ1	1:E:303:ASP:CG	2.20	0.44
1:G:293:ASP:HB3	1:G:296:LEU:HB2	2.00	0.44
2:H:117:LYS:HD3	2:H:145:THR:HA	1.99	0.44
2:H:179:HIS:O	2:H:234:VAL:HG22	2.17	0.44
2:H:184:ASP:OD1	2:H:197:ARG:NH1	2.50	0.44
1:E:107:LYS:HA	1:E:110:GLN:CD	2.37	0.44
1:E:128:TYR:OH	1:E:137:TYR:HA	2.17	0.44
1:E:165:LEU:HB3	1:E:246:ILE:HG12	1.98	0.44
2:F:133:VAL:HA	2:F:137:GLU:HB3	1.98	0.44
1:I:2:LYS:H	1:I:2:LYS:HG3	1.59	0.44
1:I:15:PHE:HD1	1:I:318:SER:HB2	1.82	0.44
1:I:221:LEU:HD13	1:I:224:LYS:HD3	2.00	0.44
2:J:96:GLU:HG2	2:J:98:THR:HG23	1.98	0.44
2:J:104:ARG:HH22	2:J:129:PRO:HD3	1.81	0.44
2:J:175:MET:HB3	2:J:244:LEU:HD13	2.00	0.44
2:J:246:VAL:HG23	2:J:307:VAL:HB	1.99	0.44
1:K:36:GLY:O	1:K:40:ALA:N	2.33	0.44
1:K:176:HIS:H	1:K:232:VAL:HG22	1.82	0.44
2:L:280:LEU:HD12	2:L:280:LEU:HA	1.73	0.44
1:A:63:THR:OG1	1:A:72:LYS:HG3	2.17	0.44
2:B:8:PHE:CD1	2:B:32:ILE:HG21	2.53	0.44
2:B:80:ASN:HD22	2:B:83:ASN:CG	2.20	0.44
2:B:92:ASP:OD1	2:B:92:ASP:N	2.50	0.44
2:B:238:ASN:ND2	2:B:286:ARG:HG2	2.32	0.44
2:B:255:GLU:HA	2:B:258:ASN:OD1	2.17	0.44
1:C:85:ALA:N	1:C:112:GLY:HA3	2.32	0.44
1:C:220:GLN:HG2	1:C:221:LEU:HD22	1.98	0.44
1:C:356:GLU:O	1:O:183:ARG:NH1	2.50	0.44
2:D:38:VAL:HG23	2:D:39:LYS:H	1.83	0.44
2:D:83:ASN:OD1	2:D:83:ASN:N	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:271:GLY:O	2:D:322:ARG:NH1	2.50	0.44
1:Q:263:ALA:O	1:Q:268:LYS:N	2.51	0.44
2:R:165:ASP:HA	2:R:169:GLY:CA	2.46	0.44
2:R:194:ASP:OD2	2:R:197:ARG:HG3	2.17	0.44
2:R:222:ASN:HB3	2:R:223:LEU:HD12	2.00	0.44
2:P:17:ARG:HA	2:P:54:PHE:CZ	2.52	0.44
1:G:15:PHE:CE1	1:G:321:VAL:HB	2.53	0.44
1:G:151:THR:OG1	1:G:210:ALA:HB1	2.17	0.44
1:G:172:MET:HG3	1:G:227:GLY:HA3	1.98	0.44
1:G:279:VAL:HB	1:E:202:ASN:HB3	1.99	0.44
2:H:151:SER:OG	2:H:153:THR:OG1	2.17	0.44
2:H:209:SER:HA	2:H:231:ALA:N	2.27	0.44
2:H:255:GLU:OE1	2:H:262:ARG:NH2	2.39	0.44
2:F:39:LYS:HG2	2:F:40:GLN:N	2.32	0.44
2:F:149:ASN:ND2	2:F:155:ASN:HB2	2.30	0.44
2:F:272:ILE:HA	2:F:322:ARG:CZ	2.47	0.44
1:I:45:LYS:NZ	1:I:55:ALA:O	2.40	0.44
1:I:63:THR:OG1	1:I:72:LYS:HG3	2.17	0.44
2:J:0:LYS:HG3	2:J:26:PRO:HA	2.00	0.44
2:J:4:ALA:O	2:J:5:ILE:HD13	2.17	0.44
2:J:45:LEU:O	2:J:54:PHE:HB2	2.17	0.44
2:J:92:ASP:HA	2:J:116:LYS:HB2	1.99	0.44
2:J:127:ASP:OD1	2:J:127:ASP:N	2.44	0.44
2:J:148:SER:OG	2:J:149:ASN:O	2.33	0.44
2:J:153:THR:HG1	2:J:154:THR:H	1.63	0.44
2:J:209:SER:HA	2:J:231:ALA:N	2.33	0.44
1:K:20:ARG:HA	1:K:20:ARG:HD2	1.32	0.44
1:K:20:ARG:HH11	1:K:20:ARG:CA	2.30	0.44
1:K:72:LYS:HG2	1:K:73:VAL:H	1.82	0.44
1:K:156:PRO:O	1:K:160:VAL:HG23	2.18	0.44
1:K:173:THR:HG23	1:K:228:ILE:HG23	1.99	0.44
1:K:211:ALA:O	1:K:225:LEU:HB2	2.18	0.44
2:L:37:GLY:HA2	1:Q:343:ASP:HA	1.98	0.44
2:L:79:ARG:HA	3:L:401:NAD:N6A	2.32	0.44
2:L:118:VAL:HB	2:L:146:ILE:HG12	1.99	0.44
2:L:173:GLY:N	2:L:227:LEU:HD13	2.32	0.44
2:L:180:SER:H	2:L:315:ASN:HD21	1.64	0.44
1:A:177:SER:HB3	1:A:234:THR:O	2.16	0.44
1:A:190:HIS:NE2	1:A:195:ARG:HD2	2.33	0.44
2:B:80:ASN:ND2	2:B:82:VAL:HB	2.33	0.44
2:B:192:HIS:CG	2:B:193:ARG:N	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:209:SER:HA	2:B:231:ALA:N	2.33	0.44
1:C:60:ILE:HB	1:C:63:THR:O	2.17	0.44
1:C:134:GLU:HG2	1:C:135:LYS:H	1.83	0.44
2:D:32:ILE:HD13	2:D:33:ASN:N	2.33	0.44
1:Q:31:ASN:OD1	1:Q:76:ASN:N	2.51	0.44
1:Q:79:PRO:HA	1:Q:82:LEU:HD12	2.00	0.44
1:Q:281:VAL:HA	1:Q:284:ARG:CG	2.48	0.44
1:O:181:ASP:O	1:O:195:ARG:NH1	2.50	0.44
2:P:101:PHE:CG	2:P:106:GLY:HA3	2.53	0.44
2:P:131:TYR:CZ	2:P:140:TYR:HA	2.52	0.44
2:P:152:CYS:HA	2:P:155:ASN:HD22	1.82	0.44
1:G:165:LEU:HA	1:G:248:LYS:HD2	2.00	0.44
1:G:182:GLN:HA	1:G:195:ARG:HB3	1.98	0.44
2:H:35:THR:CG2	2:H:79:ARG:NH2	2.80	0.44
2:H:92:ASP:HA	2:H:116:LYS:HE2	1.98	0.44
2:H:205:ILE:HA	2:H:235:PRO:HD3	2.00	0.44
1:E:217:VAL:HG23	1:E:218:LEU:HD22	1.99	0.44
2:F:0:LYS:HZ2	2:F:1:LEU:HD13	1.82	0.44
2:F:240:SER:N	2:F:313:TYR:O	2.51	0.44
2:J:46:LYS:HZ2	2:J:53:THR:HG1	1.66	0.44
2:J:167:LYS:O	2:J:250:LYS:NZ	2.48	0.44
2:J:269:LEU:HD13	2:J:273:LEU:HG	1.99	0.44
1:K:183:ARG:HB2	1:K:195:ARG:O	2.17	0.44
2:B:4:ALA:O	2:B:5:ILE:HD13	2.18	0.44
2:B:91:ILE:HD13	2:B:91:ILE:HA	1.88	0.44
2:B:104:ARG:HA	2:B:107:ALA:HB3	1.99	0.44
2:B:162:LYS:HD2	2:B:163:VAL:HG23	1.99	0.44
1:C:100:VAL:HG12	1:C:120:ALA:HB1	1.98	0.44
1:C:287:ASP:HB3	1:C:319:GLN:HG3	2.00	0.44
2:D:79:ARG:HA	3:D:401:NAD:N6A	2.32	0.44
2:D:135:VAL:N	2:D:137:GLU:OE1	2.51	0.44
1:Q:253:GLU:HA	1:Q:256:ASN:HB2	2.00	0.44
2:R:89:MET:N	2:R:89:MET:SD	2.91	0.44
2:R:156:CYS:SG	2:R:157:LEU:N	2.90	0.44
2:R:222:ASN:O	2:R:226:LYS:NZ	2.49	0.44
1:O:318:SER:O	1:O:321:VAL:HB	2.18	0.44
2:P:161:VAL:O	2:P:164:LEU:HB2	2.17	0.44
2:P:205:ILE:HD11	2:P:234:VAL:HG12	1.99	0.44
2:P:320:SER:C	2:P:324:VAL:HG23	2.38	0.44
1:G:301:GLY:HA3	1:E:169:LYS:NZ	2.32	0.44
2:H:38:VAL:CG1	2:H:75:VAL:HG13	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:305:VAL:O	1:E:307:VAL:HG23	2.18	0.44
1:E:310:TRP:N	1:E:310:TRP:CD1	2.86	0.44
2:F:142:HIS:HB3	2:F:335:GLN:CD	2.38	0.44
1:I:304:MET:HB2	1:I:304:MET:HE3	1.79	0.44
2:J:179:HIS:N	2:J:232:LEU:O	2.51	0.44
1:K:146:ASN:ND2	1:K:317:TYR:OH	2.43	0.44
1:K:173:THR:HG23	1:K:228:ILE:O	2.17	0.44
1:K:215:SER:HB3	1:K:225:LEU:HD11	1.99	0.44
1:K:324:LEU:O	1:K:327:LEU:N	2.51	0.44
3:K:402:NAD:PN	3:K:402:NAD:H3D	2.58	0.44
2:L:135:VAL:N	2:L:137:GLU:OE1	2.51	0.44
2:L:137:GLU:OE1	2:L:137:GLU:N	2.45	0.44
1:A:28:VAL:HA	1:A:71:ILE:HG13	2.00	0.44
1:A:260:ARG:HA	1:A:263:ALA:HB3	2.00	0.44
1:A:279:VAL:HB	1:C:202:ASN:HB3	2.00	0.44
1:A:324:LEU:HA	1:A:327:LEU:HB3	1.99	0.44
2:B:133:VAL:HA	2:B:137:GLU:HB3	1.99	0.44
2:B:159:PRO:HA	2:B:162:LYS:HE3	2.00	0.44
2:B:293:THR:N	2:B:312:TRP:O	2.26	0.44
1:C:203:ILE:CG2	1:C:230:LEU:HB3	2.47	0.44
2:D:41:ALA:HA	2:D:44:LEU:HB2	2.00	0.44
2:D:318:GLY:HA2	2:D:321:GLN:HB2	2.00	0.44
1:Q:165:LEU:HA	1:Q:248:LYS:HD2	2.00	0.44
1:Q:300:MET:HG2	1:O:170:GLY:N	2.33	0.44
2:R:1:LEU:HD11	2:R:334:TRP:CZ3	2.52	0.44
2:R:119:LEU:O	2:R:120:ILE:HD13	2.18	0.44
2:R:132:VAL:O	2:R:136:ASN:N	2.47	0.44
1:O:20:ARG:NH2	1:O:319:GLN:HB3	2.32	0.44
1:O:148:SER:O	1:O:151:THR:N	2.50	0.44
1:O:355:ASP:O	1:O:357:GLU:N	2.51	0.44
2:P:13:ARG:HG2	2:P:45:LEU:CA	2.48	0.44
2:P:172:LYS:H	2:P:247:GLN:HB3	1.82	0.44
2:P:196:ARG:CZ	2:P:207:PRO:HD2	2.48	0.44
1:G:6:ASN:HB3	1:G:93:ILE:O	2.18	0.44
1:G:20:ARG:HD2	1:G:21:LYS:NZ	2.33	0.44
1:G:183:ARG:HB3	1:G:187:ALA:HB3	1.99	0.44
1:G:263:ALA:O	1:G:268:LYS:N	2.51	0.44
1:G:314:GLU:O	1:G:318:SER:N	2.38	0.44
1:E:15:PHE:CD1	1:E:322:VAL:HG22	2.52	0.44
1:I:94:GLU:OE2	1:I:96:THR:OG1	2.31	0.44
1:I:248:LYS:HG2	1:I:248(A):VAL:HG12	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:276:ILE:HG21	2:J:47:TYR:OH	2.18	0.44
2:J:96:GLU:HG3	2:J:101:PHE:HB2	1.99	0.44
2:J:133:VAL:HA	2:J:137:GLU:HB3	2.00	0.44
2:J:276:CYS:O	2:J:295:ASP:HA	2.18	0.44
1:K:2:LYS:HB3	1:K:2:LYS:HE2	1.83	0.44
1:K:17:ARG:NH2	1:K:47:ASP:HB3	2.33	0.44
2:L:39:LYS:HD2	2:L:43:HIS:CE1	2.53	0.44
2:L:278:GLU:OE1	2:L:280:LEU:HD13	2.17	0.44
2:L:316:GLU:N	2:L:316:GLU:CD	2.71	0.44
1:A:76:ASN:HB3	1:A:82:LEU:HD11	1.98	0.44
1:A:239:VAL:HB	1:A:310:TRP:CA	2.43	0.44
1:A:332:TRP:CG	1:A:333:PRO:HD2	2.53	0.44
2:B:24:ASP:O	2:B:26:PRO:HD3	2.16	0.44
2:B:151:SER:OG	2:B:154:THR:OG1	2.33	0.44
2:B:276:CYS:O	2:B:295:ASP:HA	2.18	0.44
1:C:17:ARG:NH2	1:C:52:THR:O	2.50	0.44
1:C:38:LYS:O	1:C:42:HIS:HB3	2.18	0.44
2:D:50:ILE:O	2:D:286:ARG:NH1	2.51	0.44
2:D:186:ARG:HB3	2:D:190:ALA:HB3	2.00	0.44
1:Q:133:ASN:HA	1:Q:136:ASP:CG	2.37	0.44
3:Q:402:NAD:H3D	3:Q:402:NAD:PA	2.58	0.44
2:R:81:PRO:HB3	2:R:110:HIS:ND1	2.32	0.44
2:R:181:TYR:HD2	2:R:235:PRO:HA	1.82	0.44
1:G:38:LYS:HE2	1:G:38:LYS:HB2	1.62	0.44
1:G:278:LEU:CD2	2:H:47:TYR:CD2	2.96	0.44
2:H:16:LEU:HD13	2:H:45:LEU:HD21	1.97	0.44
2:H:35:THR:HG21	2:H:79:ARG:NH2	2.33	0.44
2:H:195:LEU:HD12	2:H:196:ARG:H	1.82	0.44
2:H:294:ILE:H	2:H:294:ILE:HG12	1.64	0.44
1:E:5:ILE:HG23	1:E:93:ILE:HB	1.98	0.44
1:E:102:GLY:N	1:E:103:PRO:HD2	2.33	0.44
1:E:148:SER:HA	1:E:317:TYR:CE2	2.53	0.44
2:F:131:TYR:CZ	2:F:140:TYR:HA	2.53	0.44
2:F:179:HIS:N	2:F:232:LEU:O	2.50	0.44
1:I:77:ARG:HH22	3:Q:401:NAD:H2B	1.83	0.43
1:I:137:TYR:HH	1:I:139:HIS:CE1	2.31	0.43
1:I:178:TYR:CE1	1:I:235:PRO:HA	2.52	0.43
1:I:194:ARG:HE	1:K:278:LEU:N	2.16	0.43
1:I:240:VAL:HG23	1:I:308:VAL:HA	1.99	0.43
2:J:42:SER:HG	2:J:43:HIS:H	1.65	0.43
2:J:42:SER:OG	2:J:43:HIS:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:104:ARG:CZ	2:L:129:PRO:HD3	2.48	0.43
2:L:149:ASN:HD21	2:L:155:ASN:HB2	1.83	0.43
2:L:182:THR:N	2:L:185:GLN:OE1	2.30	0.43
1:A:96:THR:HG21	1:A:99:PHE:CE2	2.53	0.43
1:A:177:SER:OG	1:A:237:VAL:N	2.36	0.43
1:A:193:LEU:H	1:A:193:LEU:HG	1.31	0.43
1:A:279:VAL:H	1:A:282:ASP:CG	2.21	0.43
2:B:15:PHE:O	2:B:18:CYS:HB2	2.18	0.43
1:C:2:LYS:HB3	1:C:2:LYS:HE2	1.79	0.43
1:C:119:THR:HG21	3:C:401:NAD:H51N	2.00	0.43
1:C:176:HIS:HB3	1:C:231:ARG:HA	2.00	0.43
1:Q:16:LEU:HA	1:Q:16:LEU:HD12	1.81	0.43
1:Q:62:GLU:HB2	1:Q:72:LYS:HE3	1.98	0.43
1:Q:194:ARG:NH2	1:O:279:VAL:HG22	2.33	0.43
2:R:137:GLU:HA	2:R:140:TYR:HB3	2.00	0.43
2:R:181:TYR:CE1	1:O:185:LEU:HD21	2.50	0.43
1:O:102:GLY:N	1:O:103:PRO:HD2	2.32	0.43
1:G:63:THR:HA	1:G:72:LYS:HA	1.99	0.43
1:G:133:ASN:N	1:G:134:GLU:OE1	2.51	0.43
1:G:203:ILE:HG23	1:G:233:PRO:HD3	2.00	0.43
1:G:275:ASP:OD1	1:G:294:SER:N	2.51	0.43
2:H:103:ASP:OD2	2:H:105:ASP:HB3	2.18	0.43
2:F:5:ILE:O	2:F:33:ASN:N	2.34	0.43
2:F:42:SER:HG	2:F:43:HIS:N	2.16	0.43
2:F:186:ARG:HD2	2:F:190:ALA:HB3	1.99	0.43
2:F:192:HIS:HB3	2:F:198:ALA:HA	2.00	0.43
1:I:8:PHE:CG	1:I:13:ARG:HG2	2.52	0.43
1:I:58:LYS:HB3	1:I:65:SER:HB3	2.00	0.43
1:I:85:ALA:C	1:I:88:GLY:H	2.21	0.43
1:I:107:LYS:O	1:I:111:ALA:N	2.51	0.43
1:I:204:VAL:O	1:I:230:LEU:HA	2.17	0.43
1:K:11:ILE:HG13	1:K:314:GLU:CD	2.39	0.43
1:K:34:GLY:O	1:K:39:SER:OG	2.35	0.43
1:K:207:SER:HB2	1:K:228:ILE:HB	1.99	0.43
2:L:2:LYS:H	2:L:2:LYS:HG2	1.59	0.43
2:L:37:GLY:HA3	2:L:40:GLN:HB2	1.99	0.43
2:L:50:ILE:HG23	2:L:286:ARG:CZ	2.48	0.43
2:L:204:ASN:O	2:L:235:PRO:HG3	2.18	0.43
1:A:160:VAL:HG13	1:A:164:GLU:HG3	1.99	0.43
1:A:195:ARG:NH1	1:G:359:LYS:O	2.51	0.43
1:A:279:VAL:CG2	1:C:202:ASN:HD22	2.30	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:111:LEU:HA	2:B:115:ALA:HB3	1.99	0.43
2:B:140:TYR:CE2	2:B:333:LYS:HD3	2.53	0.43
2:B:157:LEU:HB2	2:B:161:VAL:HG11	2.00	0.43
1:C:14:ASN:ND2	1:C:314:GLU:OE1	2.48	0.43
1:C:46:TYR:CE1	2:D:280:LEU:HD21	2.53	0.43
1:C:105:ALA:HB3	1:C:143:ILE:HD13	2.00	0.43
2:D:162:LYS:HE3	2:D:162:LYS:HB3	1.81	0.43
2:D:168:PHE:O	2:D:249:SER:OG	2.36	0.43
1:Q:17:ARG:NH1	1:Q:51:GLY:O	2.44	0.43
1:Q:96:THR:HB	1:Q:98:VAL:HG23	1.99	0.43
1:Q:170:GLY:O	1:Q:226:ASN:N	2.50	0.43
1:Q:322:VAL:HA	1:Q:325:ALA:HB3	2.00	0.43
2:R:37:GLY:O	2:R:40:GLN:HB2	2.18	0.43
1:O:14:ASN:HD22	1:O:14:ASN:H	1.66	0.43
1:O:93:ILE:HD12	1:O:117:ILE:HD12	2.01	0.43
1:O:153:CYS:SG	1:O:154:LEU:N	2.90	0.43
1:G:102:GLY:HA2	1:G:105:ALA:HB3	2.00	0.43
1:G:269:GLY:O	1:G:288:PHE:HA	2.18	0.43
1:G:299:VAL:HG11	1:G:302:GLY:C	2.39	0.43
2:H:210:THR:HG23	2:H:212:ALA:H	1.83	0.43
2:H:263:GLU:HA	2:H:266:ASP:HB2	1.99	0.43
1:E:0:LYS:N	1:E:24:PRO:O	2.30	0.43
1:E:116:VAL:HB	1:E:143:ILE:HG12	2.00	0.43
1:E:212:LYS:HE2	1:E:212:LYS:HB2	1.77	0.43
2:F:104:ARG:NH2	2:F:129:PRO:HD3	2.34	0.43
2:F:194:ASP:OD1	2:F:196:ARG:HG3	2.18	0.43
1:I:169:LYS:HE2	1:I:245:ASN:HD21	1.82	0.43
1:I:177:SER:OG	1:I:237:VAL:O	2.20	0.43
2:J:104:ARG:NH1	2:J:146:ILE:HB	2.33	0.43
2:J:119:LEU:O	2:J:120:ILE:HD13	2.18	0.43
1:K:215:SER:HA	1:K:218:LEU:C	2.38	0.43
1:K:248:LYS:HG2	1:K:248(A):VAL:H	1.84	0.43
1:K:271:LEU:HD11	1:K:292:ILE:HG12	1.99	0.43
2:L:271:GLY:O	2:L:322:ARG:NH1	2.51	0.43
1:A:15:PHE:O	1:A:18(A):TRP:N	2.31	0.43
1:A:151:THR:O	1:A:154:LEU:N	2.52	0.43
1:C:11:ILE:HD11	1:C:317:TYR:HB3	2.00	0.43
1:C:16:LEU:HD23	1:C:44:LEU:HD21	1.99	0.43
1:C:20:ARG:NH1	1:C:21:LYS:H	2.16	0.43
1:C:263:ALA:O	1:C:268:LYS:HG3	2.18	0.43
1:C:281:VAL:HA	1:C:284:ARG:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:343:ASP:C	2:R:77:SER:HB2	2.39	0.43
1:Q:149:CYS:HA	1:Q:152:ASN:HB3	2.00	0.43
1:Q:159:LYS:O	1:Q:163:GLU:HB3	2.18	0.43
1:Q:161:LEU:O	1:Q:165:LEU:HD22	2.19	0.43
1:Q:168:VAL:N	1:Q:245:ASN:O	2.50	0.43
1:Q:228:ILE:HG12	1:Q:229:ALA:N	2.30	0.43
1:Q:267:LEU:HD13	1:Q:271:LEU:HD22	1.99	0.43
2:R:94:VAL:O	2:R:95:ILE:HD13	2.17	0.43
2:R:179:HIS:O	2:R:234:VAL:HG22	2.18	0.43
1:O:91:ILE:HA	1:O:115:LYS:O	2.18	0.43
1:O:128:TYR:OH	1:O:137:TYR:HA	2.17	0.43
2:P:16:LEU:HA	2:P:16:LEU:HD23	1.52	0.43
2:P:45:LEU:O	2:P:54:PHE:HB2	2.18	0.43
2:P:313:TYR:CE2	2:P:315:ASN:HB3	2.54	0.43
1:G:118:ILE:HD12	1:G:125:ILE:HG21	1.98	0.43
1:G:167:ILE:HG23	1:G:246:ILE:HA	1.99	0.43
1:G:186:ASP:OD2	2:F:49:SER:N	2.48	0.43
2:H:81:PRO:HB3	2:H:86:TRP:HZ2	1.83	0.43
2:H:119:LEU:O	2:H:120:ILE:HD13	2.18	0.43
2:H:142:HIS:HA	2:H:330:VAL:HG13	2.00	0.43
2:H:205:ILE:HG13	2:H:234:VAL:CA	2.44	0.43
2:H:259:ALA:HA	2:H:262:ARG:HB2	1.99	0.43
3:H:401:NAD:H4D	3:H:401:NAD:PA	2.57	0.43
1:E:135:LYS:HA	1:E:135:LYS:HD2	1.65	0.43
1:E:190:HIS:CE1	1:E:192:ASP:H	2.36	0.43
1:E:298:MET:N	1:E:306:LYS:O	2.48	0.43
2:F:16:LEU:HD21	2:F:68:VAL:HG11	1.94	0.43
2:F:17:ARG:NH1	2:F:51:LEU:HB2	2.33	0.43
1:I:31:ASN:HA	1:I:74:VAL:HG23	2.01	0.43
1:I:60:ILE:HG13	1:I:64:PHE:HA	1.99	0.43
2:J:37:GLY:HA3	2:J:40:GLN:NE2	2.34	0.43
2:J:196:ARG:NH1	2:L:280:LEU:H	2.16	0.43
1:K:116:VAL:HB	1:K:143:ILE:HG23	2.00	0.43
1:K:183:ARG:HG3	1:K:187:ALA:HB3	2.00	0.43
2:L:45:LEU:O	2:L:54:PHE:HB2	2.18	0.43
2:L:86:TRP:CB	2:L:91:ILE:HB	2.48	0.43
2:L:192:HIS:CE1	2:L:194:ASP:H	2.36	0.43
2:L:192:HIS:ND1	2:L:194:ASP:N	2.66	0.43
2:L:257:VAL:O	2:L:261:PHE:N	2.51	0.43
1:A:107:LYS:HA	1:A:110:GLN:HB2	1.99	0.43
2:B:32:ILE:O	2:B:75:VAL:HA	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:122:ALA:HB2	3:B:401:NAD:H6N	2.00	0.43
2:B:203:LEU:HA	2:B:235:PRO:HG2	1.99	0.43
1:C:92:VAL:HG11	1:C:108:HIS:HD2	1.83	0.43
1:C:137:TYR:OH	1:C:331:LYS:HB2	2.18	0.43
1:C:272:ASP:HB2	1:C:288:PHE:CG	2.53	0.43
2:D:138:GLU:H	2:D:138:GLU:CD	2.18	0.43
2:D:220:LEU:HB2	2:D:223:LEU:O	2.19	0.43
2:D:237:PRO:HG2	2:D:238:ASN:OD1	2.19	0.43
2:D:239:VAL:HG13	2:D:313:TYR:C	2.38	0.43
1:Q:30:VAL:C	1:Q:74:VAL:HG23	2.38	0.43
1:Q:58:LYS:O	1:Q:64:PHE:HB2	2.17	0.43
1:Q:142:ASN:N	1:Q:142:ASN:OD1	2.52	0.43
1:Q:225:LEU:H	1:Q:225:LEU:HG	1.46	0.43
1:Q:235:PRO:HG2	1:Q:284:ARG:HH22	1.83	0.43
1:Q:261:LYS:NZ	1:Q:261:LYS:HB3	2.34	0.43
1:O:101:ASP:HB2	1:O:103:PRO:HG2	1.99	0.43
1:O:181:ASP:HB3	3:O:401:NAD:O2D	2.18	0.43
1:O:298:MET:HE3	1:O:298:MET:HB2	1.91	0.43
2:P:209:SER:HA	2:P:231:ALA:N	2.34	0.43
2:P:240:SER:HB3	2:P:313:TYR:CZ	2.53	0.43
2:P:301:VAL:HA	2:P:307:VAL:HG13	2.00	0.43
1:G:16:LEU:HD21	1:G:66:ILE:HG12	2.00	0.43
1:G:42:HIS:HA	1:G:46:TYR:CD2	2.54	0.43
1:G:102:GLY:N	1:G:103:PRO:HD2	2.33	0.43
2:H:210:THR:H	2:H:231:ALA:CB	2.32	0.43
2:H:242:VAL:HG13	2:H:311:ALA:O	2.18	0.43
2:H:314:ASP:OD2	2:H:317:TRP:HB3	2.19	0.43
1:E:192:ASP:HB3	1:E:195:ARG:HB2	2.00	0.43
1:E:217:VAL:O	1:E:218:LEU:HD13	2.18	0.43
1:E:278:LEU:HB3	1:E:282:ASP:CB	2.48	0.43
2:F:140:TYR:HE2	2:F:333:LYS:HD3	1.84	0.43
1:I:260:ARG:HA	1:I:263:ALA:HB3	2.00	0.43
2:J:11:ILE:H	3:J:401:NAD:PN	2.40	0.43
2:J:33:ASN:ND2	2:J:84:LEU:HD13	2.34	0.43
2:J:104:ARG:HA	2:J:107:ALA:HB3	2.01	0.43
2:L:60:THR:HB	2:L:66:ILE:HG23	2.01	0.43
2:L:169:GLY:O	2:L:249:SER:N	2.42	0.43
1:A:96:THR:HG21	1:A:99:PHE:HE2	1.84	0.43
1:C:112:GLY:C	1:C:114:LYS:HZ1	2.15	0.43
1:C:215:SER:HA	1:C:218:LEU:C	2.38	0.43
1:C:257:ASN:OD1	1:C:260:ARG:NH1	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:167:LYS:HA	2:D:167:LYS:HD3	1.77	0.43
2:D:241:VAL:HG13	2:D:311:ALA:C	2.38	0.43
2:D:314:ASP:CG	2:D:317:TRP:H	2.22	0.43
1:Q:2:LYS:H	1:Q:90:ASP:CG	2.19	0.43
1:Q:310:TRP:HH2	1:O:203:ILE:HB	1.84	0.43
1:O:129:VAL:HG11	1:O:155:ALA:HB3	2.00	0.43
1:O:194:ARG:HB3	1:O:204:VAL:HG13	2.00	0.43
1:O:278:LEU:HB3	1:O:282:ASP:CB	2.48	0.43
1:O:319:GLN:O	1:O:322:VAL:N	2.52	0.43
2:P:157:LEU:HD12	2:P:158:ALA:N	2.33	0.43
2:P:163:VAL:O	2:P:166:GLN:HB2	2.18	0.43
1:G:159:LYS:HG2	1:G:160:VAL:N	2.31	0.43
1:G:181:ASP:OD1	1:G:231:ARG:NH1	2.51	0.43
2:H:18:CYS:SG	2:H:324:VAL:HG21	2.58	0.43
2:H:172:LYS:O	2:H:247:GLN:N	2.29	0.43
1:E:21:LYS:HZ3	1:E:21:LYS:H	1.66	0.43
2:F:1:LEU:O	2:F:28:ASP:N	2.51	0.43
2:F:161:VAL:O	2:F:164:LEU:HB2	2.19	0.43
2:F:176:THR:N	2:F:243:ASP:O	2.51	0.43
2:F:241:VAL:HA	2:F:311:ALA:O	2.18	0.43
2:J:104:ARG:N	2:J:128:ILE:HD11	2.33	0.43
2:J:111:LEU:HA	2:J:115:ALA:HB3	2.00	0.43
2:J:132:VAL:H	2:J:136:ASN:CG	2.22	0.43
1:K:127:THR:HA	1:K:145:SER:HG	1.84	0.43
1:K:287:ASP:OD1	1:K:287:ASP:N	2.51	0.43
1:K:288:PHE:HB3	1:K:290:SER:O	2.19	0.43
2:L:117:LYS:NZ	2:L:142:HIS:O	2.30	0.43
2:L:206:VAL:N	2:L:233:ARG:O	2.37	0.43
1:A:115:LYS:HB3	1:A:142:ASN:O	2.17	0.43
2:B:57:ASP:O	2:B:68:VAL:HG23	2.19	0.43
2:B:104:ARG:NH1	2:B:146:ILE:HB	2.34	0.43
2:B:169:GLY:O	2:B:249:SER:N	2.49	0.43
2:B:204:ASN:HB3	2:D:281:VAL:HB	2.01	0.43
1:C:46:TYR:CG	2:D:280:LEU:HD11	2.54	0.43
1:C:193:LEU:HG	1:C:194:ARG:H	1.84	0.43
1:C:287:ASP:OD1	1:C:315:TRP:NE1	2.52	0.43
2:D:50:ILE:HG23	2:D:286:ARG:NE	2.34	0.43
2:D:273:LEU:HD13	2:D:292:SER:H	1.82	0.43
1:Q:10:ARG:C	1:Q:14:ASN:HD22	2.17	0.43
1:Q:121:PRO:HG3	1:Q:148:SER:N	2.33	0.43
2:R:177:THR:OG1	2:R:178:THR:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:89:ILE:O	1:O:114:LYS:HE3	2.18	0.43
1:O:327:LEU:O	1:O:331:LYS:N	2.39	0.43
2:P:3:VAL:HG21	2:P:27:LEU:HD12	2.01	0.43
2:P:5:ILE:HG21	2:P:8:PHE:HD1	1.83	0.43
2:P:5:ILE:O	2:P:33:ASN:N	2.41	0.43
2:P:22:ARG:HH21	2:P:321:GLN:NE2	2.16	0.43
2:P:84:LEU:HB2	2:P:86:TRP:CH2	2.53	0.43
2:P:86:TRP:HB2	2:P:115:ALA:N	2.34	0.43
2:P:300:MET:N	2:P:308:LYS:HB3	2.33	0.43
1:G:281:VAL:HA	1:G:284:ARG:CG	2.48	0.43
2:H:46:LYS:HG2	2:H:47:TYR:CE1	2.53	0.43
2:H:89:MET:SD	2:H:89:MET:N	2.91	0.43
2:H:186:ARG:HG3	2:H:190:ALA:O	2.17	0.43
2:H:317:TRP:O	2:H:320:SER:OG	2.16	0.43
2:F:104:ARG:CZ	2:F:146:ILE:HB	2.49	0.43
2:F:131:TYR:HD2	2:F:147:ILE:HG21	1.84	0.43
2:J:120:ILE:O	2:J:148:SER:OG	2.37	0.43
2:J:322:ARG:HA	2:J:325:ASP:OD2	2.19	0.43
2:L:104:ARG:HH11	2:L:146:ILE:HB	1.84	0.43
2:L:142:HIS:CD2	2:L:335:GLN:H	2.36	0.43
2:L:173:GLY:O	2:L:228:ASN:N	2.42	0.43
2:L:211:GLY:O	2:L:214:LYS:HG3	2.19	0.43
2:L:267:ASN:OD1	2:L:268:GLU:N	2.48	0.43
1:A:9:GLY:O	1:A:13:ARG:HG3	2.18	0.43
1:A:51:GLY:H	2:B:283:ILE:HD11	1.83	0.43
1:A:175:THR:HG23	1:A:239:VAL:O	2.19	0.43
1:A:183:ARG:HB3	1:A:185:LEU:O	2.18	0.43
1:A:260:ARG:HG3	1:A:273:VAL:HB	2.01	0.43
1:A:270:VAL:O	1:A:289:SER:HB2	2.19	0.43
1:C:4:ALA:HB1	1:C:29:VAL:HG12	2.01	0.43
1:C:4:ALA:O	1:C:93:ILE:HG12	2.19	0.43
1:C:46:TYR:CD1	2:D:280:LEU:HD11	2.54	0.43
1:C:198:ALA:HB3	1:C:201:LEU:HD11	2.00	0.43
1:C:203:ILE:CG1	1:C:232:VAL:HG12	2.49	0.43
1:C:208:THR:HG23	1:C:210:ALA:HB3	2.00	0.43
2:D:104:ARG:CZ	2:D:129:PRO:HD3	2.48	0.43
2:D:163:VAL:HG12	2:D:261:PHE:HE1	1.84	0.43
1:Q:171:THR:HA	1:Q:226:ASN:O	2.19	0.43
1:Q:181:ASP:CG	1:Q:231:ARG:HH12	2.21	0.43
2:R:38:VAL:HG12	2:R:75:VAL:HG22	2.01	0.43
2:R:204:ASN:ND2	2:P:282:SER:OG	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:81:LYS:H	1:O:81:LYS:HD2	1.84	0.43
1:O:90:ASP:HB3	1:O:332:TRP:CZ3	2.54	0.43
1:O:115:LYS:HE2	1:O:332:TRP:HB2	2.00	0.43
1:O:168:VAL:HB	1:O:245:ASN:OD1	2.18	0.43
1:O:176:HIS:HA	1:O:238:SER:OG	2.18	0.43
1:O:182:GLN:HA	1:O:195:ARG:HB3	2.00	0.43
2:P:32:ILE:O	2:P:76:VAL:HG22	2.18	0.43
1:G:17:ARG:NH1	1:G:47:ASP:HB3	2.34	0.43
1:G:240:VAL:O	1:G:308:VAL:HA	2.18	0.43
1:G:261:LYS:HZ2	1:G:261:LYS:HB3	1.83	0.43
1:G:261:LYS:HZ3	1:G:262:ALA:HB2	1.82	0.43
1:G:301:GLY:C	1:G:303:ASP:H	2.21	0.43
2:H:199:ARG:HH12	1:E:46:TYR:HB2	1.83	0.43
2:H:199:ARG:NH2	1:E:46:TYR:O	2.51	0.43
2:H:204:ASN:HB3	2:F:281:VAL:HB	2.00	0.43
2:H:208:THR:HG21	2:H:233:ARG:NE	2.33	0.43
1:E:20:ARG:HD2	1:E:20:ARG:HA	1.50	0.43
1:E:119:THR:OG1	1:E:119:THR:O	2.35	0.43
2:F:5:ILE:H	2:F:32:ILE:HA	1.83	0.43
2:F:15:PHE:CZ	2:F:29:VAL:HG21	2.53	0.43
2:F:22:ARG:NH2	2:F:321:GLN:O	2.48	0.43
2:F:29:VAL:O	2:F:71:LYS:NZ	2.51	0.43
1:I:104:GLY:HA2	1:I:107:LYS:NZ	2.34	0.43
1:I:166:GLY:O	1:I:246:ILE:HG13	2.18	0.43
1:I:251:THR:O	1:I:255:VAL:HG23	2.19	0.43
1:I:292:ILE:HG12	1:I:309:ALA:HB1	2.00	0.43
1:I:298:MET:O	1:I:306:LYS:N	2.52	0.43
2:J:1:LEU:HD11	2:J:334:TRP:CE3	2.54	0.43
2:J:257:VAL:O	2:J:261:PHE:N	2.24	0.43
2:J:275:VAL:HB	2:J:294:ILE:HB	2.01	0.43
1:K:77:ARG:HH12	1:E:356:GLU:CB	2.32	0.43
1:K:92:VAL:HG12	1:K:116:VAL:HG13	2.00	0.43
1:K:115:LYS:HB2	1:K:332:TRP:HZ3	1.84	0.43
2:L:320:SER:O	2:L:324:VAL:HG23	2.19	0.43
1:A:6:ASN:HB3	1:A:95:GLY:N	2.33	0.43
1:A:60:ILE:HG13	1:A:64:PHE:HA	2.01	0.43
1:A:312:ASP:OD1	1:A:317:TYR:N	2.33	0.43
2:B:46:LYS:HD2	2:B:54:PHE:HB3	2.01	0.43
1:C:4:ALA:HB2	1:C:89:ILE:HG13	2.01	0.43
1:C:192:ASP:OD2	1:C:194:ARG:HB2	2.17	0.43
1:C:263:ALA:O	1:C:268:LYS:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:11:ILE:C	1:Q:14:ASN:H	2.21	0.43
1:Q:17:ARG:NH1	1:Q:47:ASP:HB3	2.34	0.43
1:Q:50:LEU:HD11	1:Q:315:TRP:CD2	2.54	0.43
1:Q:151:THR:O	1:Q:154:LEU:N	2.51	0.43
1:Q:159:LYS:HG2	1:Q:160:VAL:N	2.32	0.43
1:Q:242:LEU:O	1:Q:307:VAL:HG23	2.18	0.43
2:R:259:ALA:HA	2:R:262:ARG:HB2	1.99	0.43
1:O:217:VAL:O	1:O:218:LEU:HD13	2.19	0.43
2:P:84:LEU:HD12	2:P:86:TRP:CH2	2.54	0.43
2:P:104:ARG:HD2	2:P:146:ILE:HD12	2.00	0.43
2:P:142:HIS:HB3	2:P:335:GLN:CD	2.39	0.43
2:P:159:PRO:O	2:P:162:LYS:HB3	2.18	0.43
1:G:90:ASP:HA	1:G:114:LYS:CG	2.49	0.43
1:G:172:MET:O	1:G:227:GLY:HA2	2.18	0.43
1:G:175:THR:HG23	1:G:239:VAL:O	2.18	0.43
1:G:204:VAL:C	1:G:230:LEU:HD23	2.39	0.43
2:H:98:THR:OG1	2:H:99:GLY:N	2.51	0.43
1:E:87:LEU:CB	1:E:89:ILE:HG12	2.48	0.43
1:E:191:ARG:HD3	1:E:192:ASP:N	2.34	0.43
1:E:241:ASP:HB2	1:E:307:VAL:H	1.84	0.43
2:F:87:GLY:C	2:F:90:GLY:H	2.21	0.43
2:F:118:VAL:HB	2:F:146:ILE:HG23	2.00	0.43
2:F:320:SER:OG	2:F:321:GLN:N	2.51	0.43
1:I:3:VAL:HA	1:I:89:ILE:HG23	2.00	0.43
1:I:15:PHE:CZ	1:I:322:VAL:HG13	2.54	0.43
2:J:8:PHE:HZ	2:J:13:ARG:HG3	1.80	0.43
2:J:10:ARG:HA	2:J:13:ARG:CD	2.48	0.43
2:J:24:ASP:O	2:J:26:PRO:HD3	2.18	0.43
2:J:59:LYS:N	2:J:67:SER:O	2.52	0.43
2:J:318:GLY:HA2	2:J:321:GLN:HG2	2.00	0.43
1:K:58:LYS:HB3	1:K:65:SER:OG	2.19	0.43
1:K:84:TRP:CE2	1:K:111:ALA:HB3	2.54	0.43
1:K:97:GLY:O	1:K:100:VAL:HG13	2.18	0.43
1:K:172:MET:SD	1:K:174:THR:N	2.92	0.43
1:K:328:VAL:O	1:K:332:TRP:HB2	2.19	0.43
2:L:84:LEU:O	2:L:86:TRP:N	2.52	0.43
2:L:119:LEU:HG	2:L:120:ILE:H	1.84	0.43
2:L:131:TYR:HA	2:L:136:ASN:HB2	2.01	0.43
2:L:164:LEU:HD22	2:L:170:ILE:HD11	1.99	0.43
2:B:26:PRO:HD2	2:B:27:LEU:HD22	2.01	0.43
2:B:46:LYS:HZ2	2:B:53:THR:HG1	1.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:132:VAL:HG12	2:B:133:VAL:H	1.84	0.43
2:B:179:HIS:O	2:B:234:VAL:HG13	2.19	0.43
2:B:282:SER:OG	2:D:204:ASN:ND2	2.51	0.43
1:C:64:PHE:HE1	1:C:66:ILE:HG12	1.83	0.43
1:C:178:TYR:HB3	1:C:233:PRO:HA	2.00	0.43
1:C:202:ASN:C	1:C:203:ILE:HD12	2.39	0.43
3:C:401:NAD:PN	3:C:401:NAD:H3D	2.57	0.43
2:D:2:LYS:H	2:D:2:LYS:HG2	1.64	0.43
2:D:186:ARG:HB2	2:D:198:ALA:O	2.19	0.43
2:D:292:SER:OG	2:D:311:ALA:HB1	2.19	0.43
1:Q:40:ALA:O	1:Q:43:LEU:HB2	2.18	0.43
1:Q:118:ILE:HB	1:Q:145:SER:CA	2.46	0.43
1:Q:261:LYS:HZ3	1:Q:262:ALA:HB2	1.84	0.43
1:Q:301:GLY:C	1:Q:303:ASP:H	2.23	0.43
1:Q:311:TYR:HD2	1:Q:312:ASP:O	2.01	0.43
2:R:15:PHE:CG	2:R:324:VAL:HG22	2.54	0.43
2:R:40:GLN:OE1	1:O:190:HIS:N	2.52	0.43
2:R:175:MET:O	2:R:229:GLY:HA3	2.19	0.43
1:O:74:VAL:HG11	1:O:82:LEU:HD22	2.00	0.43
1:O:135:LYS:HD2	1:O:135:LYS:HA	1.59	0.43
1:G:99:PHE:C	1:G:101:ASP:H	2.22	0.43
1:G:128:TYR:HD2	1:G:145:SER:N	2.17	0.43
1:G:253:GLU:OE2	1:G:294:SER:OG	2.37	0.43
2:H:104:ARG:H	2:H:127:ASP:CG	2.21	0.43
2:H:222:ASN:HB3	2:H:223:LEU:HD12	2.00	0.43
1:E:29:VAL:HA	1:E:72:LYS:O	2.18	0.43
1:E:172:MET:HG3	1:E:242:LEU:HD12	2.01	0.43
1:E:178:TYR:N	1:E:232:VAL:O	2.52	0.43
1:E:320:ARG:HA	1:E:323:ASP:HB2	2.00	0.43
2:F:159:PRO:O	2:F:163:VAL:HG23	2.18	0.43
2:F:165:ASP:HA	2:F:170:ILE:HG13	2.00	0.43
2:J:39:LYS:NZ	2:J:40:GLN:H	2.17	0.43
2:J:96:GLU:OE2	2:J:98:THR:HG23	2.19	0.43
2:J:281:VAL:N	2:J:284:ASP:OD2	2.40	0.43
1:K:236:ASN:ND2	1:K:236:ASN:O	2.52	0.43
1:K:263:ALA:O	1:K:268:LYS:N	2.51	0.43
2:L:151:SER:HA	3:L:401:NAD:H4N	2.00	0.43
1:A:1:LEU:N	1:A:25:LEU:HA	2.34	0.43
1:A:10:ARG:HG2	1:A:13:ARG:HH21	1.83	0.43
1:A:251:THR:O	1:A:255:VAL:HG23	2.18	0.43
1:A:287:ASP:OD1	1:A:287:ASP:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:92:ASP:HA	2:B:116:LYS:HE2	2.01	0.43
3:C:401:NAD:H1D	1:O:362:GLU:OXT	2.19	0.43
2:D:40:GLN:HA	2:D:43:HIS:ND1	2.34	0.43
2:D:84:LEU:O	2:D:86:TRP:N	2.51	0.43
2:D:96:GLU:HG3	2:D:101:PHE:HB2	2.01	0.43
1:Q:38:LYS:HB2	1:Q:38:LYS:HE2	1.64	0.43
1:Q:332:TRP:CG	1:Q:333:PRO:HD2	2.53	0.43
2:R:164:LEU:HD22	2:R:170:ILE:HD11	2.00	0.43
2:R:213:ALA:HB1	2:R:228:ASN:ND2	2.34	0.43
2:R:318:GLY:O	2:R:322:ARG:HG2	2.18	0.43
2:R:331:ALA:O	2:R:334:TRP:HB2	2.19	0.43
1:O:93:ILE:HD12	1:O:117:ILE:HB	2.01	0.43
1:G:1:LEU:HD13	1:G:25:LEU:HD12	2.01	0.43
1:G:106:GLY:C	1:G:108:HIS:H	2.22	0.43
1:G:287:ASP:OD1	1:G:287:ASP:N	2.52	0.43
2:H:289:ASP:OD2	2:H:321:GLN:NE2	2.52	0.43
1:E:8:PHE:O	1:E:13:ARG:NH1	2.36	0.43
1:E:40:ALA:HA	1:E:43:LEU:HD12	2.01	0.43
1:E:164:GLU:OE1	1:E:255:VAL:HG12	2.19	0.43
2:F:38:VAL:HG12	2:F:64:SER:O	2.18	0.43
2:F:119:LEU:HG	2:F:148:SER:HA	2.00	0.43
1:I:77:ARG:HD2	3:Q:401:NAD:N1A	2.34	0.42
2:J:104:ARG:NE	2:J:127:ASP:O	2.41	0.42
2:J:142:HIS:HB2	2:J:333:LYS:HG3	2.00	0.42
2:J:157:LEU:HD12	2:J:158:ALA:N	2.33	0.42
2:J:179:HIS:O	2:J:234:VAL:HG13	2.19	0.42
1:K:24:PRO:O	1:K:25:LEU:HD13	2.19	0.42
1:K:45:LYS:HD2	1:K:53:PHE:CB	2.49	0.42
1:K:283:PHE:HE2	1:K:310:TRP:CE2	2.37	0.42
2:L:248:VAL:N	2:L:305:ASP:O	2.37	0.42
2:L:272:ILE:O	2:L:291:SER:OG	2.21	0.42
1:A:48:SER:HA	2:B:283:ILE:HG12	2.00	0.42
1:A:74:VAL:HG21	1:A:84:TRP:HH2	1.83	0.42
1:A:80:LEU:HG	1:A:107:LYS:HB3	2.01	0.42
1:A:180:GLY:N	2:D:188:LEU:HD22	2.34	0.42
1:A:272:ASP:HB2	1:A:288:PHE:CG	2.54	0.42
2:B:172:LYS:HA	2:B:227:LEU:HD22	2.00	0.42
2:B:220:LEU:HD13	2:B:223:LEU:HD22	2.00	0.42
2:D:181:TYR:CE1	2:D:237:PRO:HB3	2.53	0.42
2:D:192:HIS:ND1	2:D:197:ARG:HB2	2.33	0.42
1:Q:17:ARG:HD2	1:Q:53:PHE:CG	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:241:ASP:OD1	1:Q:306:LYS:HG3	2.18	0.42
2:R:142:HIS:HA	2:R:330:VAL:HG13	2.01	0.42
2:P:111:LEU:HD22	2:P:116:LYS:N	2.34	0.42
2:P:137:GLU:O	2:P:140:TYR:HB3	2.19	0.42
1:G:93:ILE:HG23	1:G:117:ILE:HB	2.01	0.42
1:G:149:CYS:HA	1:G:152:ASN:HB3	2.00	0.42
1:G:180:GLY:HA2	2:F:187:LEU:CD2	2.49	0.42
2:H:0:LYS:N	2:H:26:PRO:O	2.28	0.42
2:H:160:PHE:O	2:H:164:LEU:N	2.34	0.42
2:H:217:ALA:HA	2:H:224:LYS:HG2	2.00	0.42
1:E:37:VAL:HG13	1:E:73:VAL:HG11	2.00	0.42
1:E:45:LYS:NZ	1:E:53:PHE:O	2.33	0.42
2:F:0:LYS:NZ	2:F:1:LEU:HD13	2.33	0.42
2:F:205:ILE:HD11	2:F:234:VAL:HG12	2.01	0.42
1:I:78:ASP:OD1	1:I:80:LEU:HD12	2.19	0.42
1:I:272:ASP:HB2	1:I:288:PHE:CG	2.54	0.42
2:J:107:ALA:HB1	2:J:118:VAL:HG11	2.00	0.42
2:J:185:GLN:HA	2:J:197:ARG:HD3	2.02	0.42
2:J:210:THR:HG23	2:J:212:ALA:HB3	2.01	0.42
1:K:103:PRO:HA	1:E:110:GLN:HG2	2.00	0.42
1:K:125:ILE:H	1:K:125:ILE:HD12	1.83	0.42
1:K:137:TYR:OH	1:K:331:LYS:HB2	2.19	0.42
1:K:169:LYS:HA	1:K:224:LYS:CG	2.36	0.42
1:K:169:LYS:N	1:K:245:ASN:OD1	2.44	0.42
2:L:10:ARG:H	2:L:10:ARG:CD	2.30	0.42
2:L:304:ASP:OD1	2:L:304:ASP:N	2.50	0.42
2:B:56:ALA:HB1	2:B:69:ASP:OD2	2.19	0.42
2:B:89:MET:N	2:B:89:MET:SD	2.92	0.42
2:B:283:ILE:C	2:B:285:PHE:H	2.22	0.42
1:C:174:THR:HG23	1:C:175:THR:O	2.19	0.42
1:C:212:LYS:O	1:C:215:SER:OG	2.24	0.42
1:C:312:ASP:CG	1:C:316:GLY:H	2.18	0.42
2:D:31:VAL:HA	2:D:74:LYS:O	2.18	0.42
2:D:278:GLU:OE1	2:D:280:LEU:HD13	2.19	0.42
1:Q:54:LYS:HA	1:Q:54:LYS:HZ2	1.84	0.42
1:Q:204:VAL:O	1:Q:230:LEU:HD23	2.19	0.42
2:R:93:LEU:HD21	2:R:95:ILE:HD11	2.01	0.42
2:R:238:ASN:ND2	2:R:239:VAL:H	2.17	0.42
2:R:317:TRP:O	2:R:320:SER:OG	2.16	0.42
1:O:20:ARG:HD2	1:O:20:ARG:HA	1.46	0.42
1:O:38:LYS:HE3	1:O:38:LYS:HB2	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:79:PRO:HG3	1:O:108:HIS:CE1	2.54	0.42
1:O:181:ASP:O	1:O:195:ARG:HD2	2.19	0.42
1:O:305:VAL:O	1:O:307:VAL:HG23	2.19	0.42
3:O:401:NAD:H52N	3:O:401:NAD:O5B	2.19	0.42
2:P:179:HIS:N	2:P:232:LEU:O	2.52	0.42
1:G:171:THR:C	1:G:242:LEU:HD12	2.40	0.42
1:G:183:ARG:HG3	1:G:196:ALA:HA	2.01	0.42
1:G:251:THR:HG22	1:G:252:ALA:H	1.84	0.42
2:H:140:TYR:OH	2:H:330:VAL:HA	2.18	0.42
2:H:245:VAL:HA	2:H:307:VAL:O	2.19	0.42
1:E:40:ALA:HA	1:E:43:LEU:HB2	2.01	0.42
1:E:83:PRO:HG2	1:E:86:GLU:HB3	2.01	0.42
1:E:139:HIS:CD2	1:E:333:PRO:HG2	2.55	0.42
1:E:221:LEU:HG	1:E:224:LYS:HD2	2.01	0.42
2:F:15:PHE:HZ	2:F:29:VAL:HG21	1.84	0.42
2:F:104:ARG:HD2	2:F:146:ILE:HD12	2.01	0.42
1:I:96:THR:OG1	1:I:98:VAL:N	2.51	0.42
1:I:109:ILE:HD13	1:I:113:ALA:HB3	2.01	0.42
2:J:46:LYS:HG3	2:J:47:TYR:CE1	2.55	0.42
2:J:92:ASP:HA	2:J:116:LYS:HE2	2.00	0.42
2:J:160:PHE:HB2	2:J:261:PHE:CZ	2.54	0.42
2:J:247:GLN:HA	2:J:306:MET:HA	2.01	0.42
2:L:187:LEU:H	2:L:187:LEU:HD23	1.83	0.42
1:A:0:LYS:H2	1:A:25:LEU:C	2.22	0.42
1:A:14:ASN:HD22	1:A:15:PHE:N	2.17	0.42
1:A:77:ARG:HD3	3:A:401:NAD:N6A	2.34	0.42
1:A:183:ARG:HG2	1:A:187:ALA:N	2.35	0.42
1:A:203:ILE:HG13	1:A:232:VAL:HA	2.00	0.42
1:A:265:GLY:HA3	1:A:266:PRO:HD3	1.91	0.42
2:B:205:ILE:CD1	2:B:232:LEU:HB3	2.48	0.42
1:C:215:SER:HB2	1:C:222:LYS:HA	2.01	0.42
2:D:1:LEU:HB2	2:D:26:PRO:O	2.20	0.42
2:D:86:TRP:HD1	2:D:114:GLY:N	2.17	0.42
1:Q:88:GLY:O	1:Q:114:LYS:NZ	2.41	0.42
1:Q:184:LEU:H	2:P:187:LEU:HD22	1.85	0.42
2:R:131:TYR:HA	2:R:136:ASN:HB2	2.02	0.42
2:R:226:LYS:HG3	2:R:227:LEU:N	2.35	0.42
1:O:11:ILE:HB	1:O:314:GLU:HG3	2.00	0.42
1:O:129:VAL:HG23	1:O:217:VAL:HG11	2.02	0.42
1:O:190:HIS:HB3	1:O:196:ALA:HB2	2.00	0.42
1:G:15:PHE:CD2	1:G:18(A):TRP:HB2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:118:ILE:HD12	1:G:145:SER:HA	2.01	0.42
1:G:135:LYS:O	1:G:135:LYS:NZ	2.29	0.42
1:G:277:PRO:HG3	1:E:193:LEU:HD13	2.00	0.42
2:H:164:LEU:HA	2:H:168:PHE:HD1	1.85	0.42
2:H:328:ASP:O	2:H:331:ALA:HB3	2.19	0.42
1:E:10:ARG:NH2	1:E:14:ASN:HD21	2.16	0.42
1:E:262:ALA:O	1:E:265:GLY:N	2.52	0.42
2:F:34:ASP:O	2:F:77:SER:OG	2.18	0.42
2:F:38:VAL:CA	2:F:66:ILE:HD11	2.50	0.42
2:F:81:PRO:HB3	2:F:110:HIS:CE1	2.54	0.42
1:I:241:ASP:OD1	1:I:242:LEU:N	2.53	0.42
1:I:265:GLY:HA3	1:I:266:PRO:HD3	1.90	0.42
2:J:132:VAL:HG22	2:J:149:ASN:HA	2.02	0.42
2:J:249:SER:OG	2:J:250:LYS:N	2.52	0.42
1:K:139:HIS:NE2	1:K:332:TRP:HA	2.34	0.42
1:K:263:ALA:O	1:K:268:LYS:HG3	2.18	0.42
2:L:81:PRO:HB2	2:L:109:LYS:CB	2.48	0.42
1:A:60:ILE:H	1:A:60:ILE:HG13	1.62	0.42
1:A:204:VAL:HA	1:A:205:PRO:HD2	1.90	0.42
2:B:104:ARG:HH22	2:B:129:PRO:HD3	1.83	0.42
2:B:119:LEU:O	2:B:120:ILE:HD13	2.19	0.42
2:B:260:ALA:HA	2:B:263:GLU:HG3	2.02	0.42
2:B:308:LYS:NZ	2:D:175:MET:O	2.33	0.42
1:C:31:ASN:OD1	1:C:76:ASN:N	2.52	0.42
1:C:134:GLU:O	1:C:137:TYR:HB3	2.20	0.42
1:C:137:TYR:CE2	1:C:331:LYS:HB2	2.55	0.42
1:C:150:THR:O	1:C:154:LEU:HB2	2.19	0.42
2:D:22:ARG:O	2:D:23:LYS:NZ	2.48	0.42
2:D:121:THR:HA	2:D:149:ASN:HB3	2.01	0.42
2:D:182:THR:CB	2:D:185:GLN:HE22	2.30	0.42
2:D:277:ASP:OD1	2:D:296:SER:OG	2.21	0.42
1:Q:2:LYS:HD3	1:Q:88:GLY:O	2.19	0.42
1:Q:116:VAL:HB	1:Q:143:ILE:HG12	2.01	0.42
1:G:181:ASP:O	1:G:195:ARG:HD3	2.18	0.42
1:G:216:LEU:HA	1:G:216:LEU:HD13	1.82	0.42
1:G:283:PHE:O	1:G:286:SER:OG	2.29	0.42
2:H:220:LEU:HD23	2:H:220:LEU:HA	1.76	0.42
1:E:63:THR:OG1	1:E:72:LYS:HA	2.19	0.42
1:E:286:SER:HA	1:E:288:PHE:CE1	2.54	0.42
2:F:280:LEU:HB3	2:F:284:ASP:HB2	2.01	0.42
1:I:3:VAL:O	1:I:28:VAL:N	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:76:ASN:CG	1:I:78:ASP:H	2.22	0.42
1:K:47:ASP:OD1	1:K:49:ILE:N	2.53	0.42
1:K:109:ILE:HD11	1:K:142:ASN:O	2.20	0.42
1:K:176:HIS:N	1:K:232:VAL:HG22	2.34	0.42
1:K:218:LEU:HB3	1:K:221:LEU:HD23	2.01	0.42
2:L:3:VAL:HG12	2:L:29:VAL:HG13	2.01	0.42
1:A:126:PRO:HG2	1:A:128:TYR:CE2	2.55	0.42
1:A:152:ASN:N	1:A:152:ASN:ND2	2.65	0.42
1:A:174:THR:HA	1:A:240:VAL:HA	2.01	0.42
1:A:258:ALA:HA	1:A:261:LYS:HB3	2.02	0.42
1:C:3:VAL:HG12	1:C:4:ALA:H	1.85	0.42
1:C:194:ARG:H	1:C:194:ARG:HG2	1.62	0.42
1:C:254:ASP:CA	1:C:257:ASN:HD22	2.32	0.42
2:D:31:VAL:HG22	2:D:74:LYS:HB2	2.02	0.42
2:D:103:ASP:C	2:D:128:ILE:HD11	2.40	0.42
2:D:131:TYR:N	2:D:148:SER:O	2.31	0.42
2:D:216:VAL:HG13	2:D:225:GLY:H	1.84	0.42
1:Q:44:LEU:HD12	1:Q:44:LEU:HA	1.85	0.42
1:Q:176:HIS:O	1:Q:232:VAL:N	2.22	0.42
1:O:10:ARG:NE	1:O:14:ASN:HD21	2.16	0.42
1:O:87:LEU:CB	1:O:89:ILE:HG12	2.48	0.42
1:O:94:GLU:CD	1:O:97:GLY:H	2.22	0.42
2:P:81:PRO:HB3	2:P:110:HIS:HE1	1.84	0.42
2:P:153:THR:HG22	2:P:157:LEU:HD23	2.01	0.42
2:P:175:MET:N	2:P:229:GLY:HA3	2.34	0.42
2:P:305:ASP:O	2:P:307:VAL:HG23	2.18	0.42
2:H:17:ARG:CZ	2:H:51:LEU:HD12	2.48	0.42
2:H:132:VAL:O	2:H:136:ASN:N	2.48	0.42
2:H:180:SER:OG	2:H:181:TYR:N	2.52	0.42
2:H:226:LYS:HG3	2:H:227:LEU:N	2.35	0.42
2:H:294:ILE:HG23	2:H:311:ALA:HB2	2.02	0.42
1:E:39:SER:OG	1:E:40:ALA:N	2.52	0.42
1:E:170:GLY:HA3	1:E:244:VAL:HG12	2.01	0.42
2:F:194:ASP:OD2	2:F:197:ARG:HG3	2.19	0.42
2:F:196:ARG:NH1	2:F:196:ARG:HB3	2.32	0.42
1:I:36:GLY:HA3	1:I:38:LYS:NZ	2.35	0.42
1:I:74:VAL:HG21	1:I:84:TRP:HH2	1.84	0.42
1:I:324:LEU:HA	1:I:327:LEU:HB3	2.01	0.42
2:J:276:CYS:SG	2:J:277:ASP:N	2.91	0.42
1:K:11:ILE:HB	3:K:401:NAD:N7N	2.34	0.42
1:K:85:ALA:H	1:K:112:GLY:HA3	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:98:VAL:HG13	1:E:355:ASP:HA	2.00	0.42
1:K:195:ARG:HH12	1:E:361:TYR:C	2.22	0.42
2:L:86:TRP:HD1	2:L:114:GLY:N	2.17	0.42
2:L:149:ASN:ND2	2:L:323:VAL:HG22	2.28	0.42
2:L:179:HIS:CE1	2:L:315:ASN:HD22	2.38	0.42
2:L:220:LEU:HB2	2:L:223:LEU:O	2.19	0.42
1:A:176:HIS:HA	1:A:238:SER:OG	2.20	0.42
2:B:46:LYS:HG3	2:B:47:TYR:CE1	2.55	0.42
2:B:301:VAL:HG22	2:B:307:VAL:HG13	2.01	0.42
1:C:3:VAL:HG23	1:C:26:ASP:H	1.85	0.42
1:C:139:HIS:C	1:C:140:VAL:H	2.23	0.42
1:C:203:ILE:HG13	1:C:232:VAL:HA	2.01	0.42
1:C:324:LEU:O	1:C:327:LEU:N	2.51	0.42
1:Q:194:ARG:HB3	1:Q:204:VAL:CG1	2.46	0.42
1:Q:261:LYS:HB3	1:Q:261:LYS:HZ2	1.84	0.42
2:R:142:HIS:CE1	2:R:334:TRP:CE3	3.00	0.42
1:O:45:LYS:O	1:O:53:PHE:N	2.47	0.42
1:O:322:VAL:HA	1:O:325:ALA:HB3	2.02	0.42
2:P:39:LYS:O	2:P:43:HIS:CG	2.72	0.42
1:G:298:MET:HG2	1:G:306:LYS:HD3	2.01	0.42
2:H:0:LYS:NZ	2:H:331:ALA:O	2.42	0.42
1:E:9:GLY:O	1:E:13:ARG:HG2	2.20	0.42
2:F:17:ARG:HA	2:F:54:PHE:CZ	2.55	0.42
2:F:111:LEU:HD22	2:F:116:LYS:N	2.34	0.42
2:F:239:VAL:HG13	2:F:313:TYR:C	2.40	0.42
1:I:3:VAL:C	1:I:89:ILE:HD12	2.40	0.42
1:I:222:LYS:HE3	1:Q:124:ASP:HA	2.02	0.42
2:J:179:HIS:ND1	2:J:180:SER:O	2.43	0.42
2:J:186:ARG:HD3	2:J:186:ARG:HA	1.94	0.42
2:J:283:ILE:H	2:L:204:ASN:HD22	1.65	0.42
1:K:20:ARG:HH11	1:K:21:LYS:H	1.67	0.42
1:K:86:GLU:HG2	1:K:87:LEU:HG	2.02	0.42
1:K:92:VAL:HG11	1:K:108:HIS:CD2	2.55	0.42
1:K:137:TYR:CZ	1:K:328:VAL:HA	2.54	0.42
1:K:254:ASP:CA	1:K:257:ASN:HD22	2.31	0.42
2:L:8:PHE:CZ	2:L:45:LEU:HB2	2.54	0.42
2:L:175:MET:HA	2:L:244:LEU:HA	2.01	0.42
1:A:18(A):TRP:HA	1:A:20:ARG:HB2	2.00	0.42
1:C:77:ARG:HA	3:C:401:NAD:N1A	2.34	0.42
1:C:183:ARG:HH12	1:O:357:GLU:N	2.17	0.42
1:C:183:ARG:O	1:C:199:ALA:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:1:LEU:HD21	2:D:334:TRP:CG	2.54	0.42
2:D:39:LYS:H	2:D:39:LYS:HG3	1.57	0.42
2:D:177:THR:HG23	2:D:232:LEU:H	1.85	0.42
1:Q:283:PHE:HE2	1:Q:310:TRP:CE3	2.37	0.42
2:R:8:PHE:CD2	2:R:41:ALA:HB1	2.54	0.42
2:R:104:ARG:H	2:R:127:ASP:CG	2.23	0.42
2:R:245:VAL:HA	2:R:307:VAL:O	2.20	0.42
1:O:15:PHE:CD1	1:O:322:VAL:HG22	2.55	0.42
1:O:64:PHE:O	1:O:70:PRO:HA	2.19	0.42
1:O:84:TRP:NE1	1:O:111:ALA:HB3	2.35	0.42
1:O:183:ARG:NH2	1:O:188:SER:HG	2.16	0.42
1:O:273:VAL:HG22	1:O:292:ILE:HD13	2.02	0.42
2:P:38:VAL:HG23	2:P:39:LYS:H	1.85	0.42
2:P:103:ASP:OD2	2:P:105:ASP:HB3	2.19	0.42
2:P:241:VAL:HA	2:P:311:ALA:O	2.19	0.42
1:G:66:ILE:HD11	1:G:71:ILE:HB	2.01	0.42
1:G:168:VAL:N	1:G:245:ASN:O	2.52	0.42
1:G:182:GLN:NE2	1:G:182:GLN:O	2.52	0.42
2:H:98:THR:OG1	2:H:100:VAL:N	2.46	0.42
2:H:195:LEU:O	2:H:199:ARG:HG2	2.19	0.42
2:H:241:VAL:HG13	2:H:311:ALA:C	2.40	0.42
2:H:244:LEU:HD23	2:H:309:VAL:HG21	2.02	0.42
2:H:312:TRP:HH2	2:F:205:ILE:H	1.67	0.42
2:F:13:ARG:CZ	2:F:44:LEU:HD22	2.50	0.42
2:F:159:PRO:O	2:F:162:LYS:HB3	2.19	0.42
1:I:107:LYS:HA	1:I:110:GLN:HB2	2.02	0.42
2:J:31:VAL:O	2:J:32:ILE:HD13	2.19	0.42
2:J:89:MET:N	2:J:89:MET:SD	2.92	0.42
2:J:171:ILE:O	2:J:226:LYS:HD2	2.20	0.42
2:J:196:ARG:HD3	2:J:207:PRO:HD2	2.01	0.42
1:K:1:LEU:O	1:K:26:ASP:N	2.51	0.42
1:K:199:ALA:O	1:K:201:LEU:N	2.53	0.42
2:L:38:VAL:HG23	2:L:39:LYS:H	1.85	0.42
2:L:285:PHE:HE1	2:L:312:TRP:CG	2.38	0.42
1:A:43:LEU:HA	2:D:199:ARG:HH11	1.84	0.42
1:A:86:GLU:OE1	1:A:87:LEU:HG	2.20	0.42
1:A:241:ASP:HA	1:A:308:VAL:HG23	2.00	0.42
2:B:194:ASP:OD2	2:B:196:ARG:HB2	2.20	0.42
1:C:79:PRO:HG3	1:C:108:HIS:CE1	2.54	0.42
1:C:81:LYS:HB3	1:C:81:LYS:HE3	1.79	0.42
1:C:84:TRP:HE1	1:C:108:HIS:CA	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:150:THR:HG1	1:C:151:THR:H	1.67	0.42
1:C:248:LYS:HG2	1:C:248(A):VAL:H	1.83	0.42
1:C:274:CYS:O	1:C:294:SER:OG	2.38	0.42
1:C:328:VAL:O	1:C:332:TRP:HB2	2.19	0.42
2:D:219:VAL:HG23	2:D:220:LEU:HG	2.00	0.42
1:Q:3:VAL:O	1:Q:27:VAL:HA	2.19	0.42
1:Q:149:CYS:HB3	1:Q:317:TYR:CD2	2.55	0.42
2:R:32:ILE:HG22	2:R:75:VAL:HB	2.01	0.42
2:R:186:ARG:HD2	2:R:190:ALA:HB3	2.02	0.42
2:R:188:LEU:HD11	1:O:179:THR:HA	2.00	0.42
2:R:228:ASN:HB3	2:P:302:MET:SD	2.59	0.42
1:O:119:THR:OG1	1:O:119:THR:O	2.38	0.42
1:O:217:VAL:HG23	1:O:218:LEU:HD22	2.02	0.42
2:P:104:ARG:CZ	2:P:146:ILE:HB	2.49	0.42
2:P:179:HIS:O	2:P:234:VAL:HG22	2.19	0.42
2:P:196:ARG:NH1	2:P:196:ARG:HB3	2.33	0.42
1:G:172:MET:HB2	1:G:240:VAL:HG23	2.02	0.42
3:G:401:NAD:PN	3:G:401:NAD:H3D	2.57	0.42
2:H:60:THR:HA	2:H:66:ILE:CG2	2.49	0.42
2:H:162:LYS:HE3	2:H:162:LYS:HB3	1.83	0.42
2:H:175:MET:O	2:H:229:GLY:HA3	2.20	0.42
2:F:94:VAL:N	2:F:117:LYS:O	2.40	0.42
2:F:182:THR:H	2:F:185:GLN:CD	2.22	0.42
2:F:238:ASN:ND2	2:F:239:VAL:H	2.17	0.42
2:F:294:ILE:HA	2:F:311:ALA:HB2	2.01	0.42
2:J:164:LEU:HA	2:J:168:PHE:HD1	1.82	0.42
2:J:220:LEU:HD13	2:J:223:LEU:HD13	2.01	0.42
1:K:139:HIS:C	1:K:140:VAL:H	2.23	0.42
1:K:155:ALA:N	1:K:156:PRO:HD2	2.34	0.42
2:L:91:ILE:O	2:L:115:ALA:HA	2.19	0.42
2:L:94:VAL:HG12	2:L:95:ILE:O	2.20	0.42
2:L:184:ASP:CG	2:L:185:GLN:HE21	2.22	0.42
2:L:261:PHE:HD1	2:L:261:PHE:HA	1.63	0.42
1:A:41:THR:HG21	1:A:59:ILE:HG12	2.02	0.42
1:A:107:LYS:H	1:A:107:LYS:HG3	1.50	0.42
1:A:153:CYS:SG	1:A:311:TYR:HB3	2.60	0.42
2:B:5:ILE:H	2:B:32:ILE:HA	1.85	0.42
2:B:140:TYR:HE2	2:B:333:LYS:HD3	1.85	0.42
1:C:28:VAL:O	1:C:72:LYS:N	2.52	0.42
1:C:31:ASN:HD21	1:C:76:ASN:H	1.68	0.42
2:D:267:ASN:OD1	2:D:268:GLU:N	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:R:78:ASP:HB3	2:R:84:LEU:CD2	2.50	0.42
2:R:164:LEU:HA	2:R:168:PHE:HD1	1.85	0.42
2:R:186:ARG:HB2	2:R:198:ALA:O	2.19	0.42
1:O:286:SER:HA	1:O:288:PHE:CE1	2.54	0.42
2:P:118:VAL:HB	2:P:146:ILE:HG23	2.02	0.42
1:G:306:LYS:HE2	1:E:228:ILE:H	1.84	0.42
2:H:119:LEU:HG	2:H:148:SER:HA	2.02	0.42
2:H:149:ASN:ND2	2:H:155:ASN:OD1	2.33	0.42
2:H:171:ILE:O	2:H:226:LYS:HB2	2.20	0.42
1:E:20:ARG:NH2	1:E:319:GLN:HB3	2.35	0.42
2:F:8:PHE:N	2:F:34:ASP:OD1	2.43	0.42
2:F:137:GLU:O	2:F:140:TYR:HB3	2.20	0.42
2:F:253:PHE:O	2:F:256:GLU:HB3	2.20	0.42
2:J:152:CYS:SG	2:J:153:THR:N	2.93	0.42
2:J:186:ARG:NH2	2:J:191:SER:O	2.53	0.42
2:J:239:VAL:HA	2:J:314:ASP:HA	2.02	0.42
2:J:309:VAL:O	2:J:310:ILE:HD13	2.20	0.42
1:K:16:LEU:O	1:K:18(A):TRP:N	2.52	0.42
1:K:17:ARG:H	1:K:17:ARG:HG2	1.62	0.42
1:K:172:MET:O	1:K:227:GLY:HA2	2.20	0.42
2:L:79:ARG:HD3	3:L:401:NAD:N6A	2.34	0.42
1:A:8:PHE:CZ	1:A:13:ARG:HA	2.55	0.42
1:A:182:GLN:HA	1:A:195:ARG:HA	2.01	0.42
1:A:227:GLY:HA2	1:C:306:LYS:NZ	2.35	0.42
2:B:86:TRP:CD1	2:B:113:ALA:HB3	2.54	0.42
2:B:276:CYS:SG	2:B:277:ASP:N	2.90	0.42
1:C:26:ASP:OD2	1:C:28:VAL:HG12	2.20	0.42
1:C:105:ALA:HB1	1:C:116:VAL:HG11	2.00	0.42
2:D:211:GLY:O	2:D:214:LYS:HG3	2.19	0.42
1:Q:151:THR:OG1	1:Q:210:ALA:HB1	2.20	0.42
1:Q:312:ASP:CG	1:Q:313:ASN:N	2.72	0.42
2:R:50:ILE:HG22	2:R:51:LEU:HD23	2.02	0.42
3:R:401:NAD:O5B	3:R:401:NAD:H4D	2.20	0.42
1:O:176:HIS:HB3	1:O:231:ARG:HD3	2.01	0.42
1:O:204:VAL:CG2	1:O:231:ARG:HB2	2.50	0.42
2:P:240:SER:OG	2:P:241:VAL:N	2.53	0.42
2:P:251:LYS:HD2	2:P:304:ASP:HB2	2.02	0.42
1:G:197:ARG:NH2	1:E:282:ASP:OD1	2.40	0.42
1:E:33:SER:HA	1:E:75:SER:OG	2.19	0.42
1:E:45:LYS:HZ2	1:E:53:PHE:C	2.17	0.42
1:E:94:GLU:HB2	1:E:118:ILE:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:175:MET:N	2:F:229:GLY:HA3	2.35	0.42
2:F:230:ILE:HD12	2:F:231:ALA:O	2.20	0.42
2:F:240:SER:HB3	2:F:313:TYR:CZ	2.54	0.42
1:I:28:VAL:HA	1:I:71:ILE:HG13	2.01	0.41
1:I:246:ILE:HA	1:I:246:ILE:HD12	1.91	0.41
1:I:284:ARG:HD2	1:I:284:ARG:HA	1.65	0.41
2:J:95:ILE:HD13	2:J:119:LEU:O	2.20	0.41
2:J:238:ASN:HB2	2:J:286:ARG:NH1	2.35	0.41
1:K:46:TYR:HE1	2:L:280:LEU:HD21	1.83	0.41
1:K:178:TYR:H	1:K:234:THR:H	1.67	0.41
1:K:217:VAL:C	1:K:218:LEU:HD12	2.41	0.41
2:L:1:LEU:HB2	2:L:26:PRO:O	2.20	0.41
2:L:17:ARG:NH2	2:L:51:LEU:O	2.53	0.41
2:L:314:ASP:CG	2:L:317:TRP:H	2.23	0.41
1:A:31:ASN:ND2	1:A:77:ARG:HH21	2.18	0.41
1:A:162:ASP:OD1	1:A:163:GLU:HG3	2.19	0.41
1:A:222:LYS:HZ2	1:G:123(A):SER:C	2.18	0.41
1:A:346:GLU:HA	1:A:349:CYS:HB3	2.02	0.41
1:C:2:LYS:NZ	1:C:88:GLY:HA3	2.34	0.41
1:C:129:VAL:N	1:C:133:ASN:HD21	2.18	0.41
1:C:174:THR:OG1	1:C:175:THR:N	2.53	0.41
1:C:271:LEU:HD11	1:C:292:ILE:HG12	2.02	0.41
2:D:71:LYS:HZ1	2:D:73:ILE:HG13	1.84	0.41
2:D:91:ILE:O	2:D:115:ALA:HA	2.19	0.41
1:Q:62:GLU:HB2	1:Q:72:LYS:CE	2.50	0.41
1:Q:121:PRO:HD2	3:Q:402:NAD:H5N	2.01	0.41
1:Q:128:TYR:HD2	1:Q:145:SER:N	2.18	0.41
1:Q:175:THR:OG1	1:Q:238:SER:HA	2.20	0.41
1:Q:175:THR:H	1:Q:239:VAL:H	1.68	0.41
1:Q:180:GLY:N	2:P:188:LEU:HD22	2.35	0.41
1:Q:349:CYS:SG	1:Q:353:PRO:HA	2.60	0.41
3:Q:402:NAD:PN	3:Q:402:NAD:H3D	2.60	0.41
2:R:22:ARG:HH21	2:R:324:VAL:HB	1.85	0.41
2:R:92:ASP:HA	2:R:116:LYS:HE2	2.02	0.41
2:R:170:ILE:HA	2:R:248:VAL:CA	2.38	0.41
2:R:295:ASP:OD2	2:R:298:LEU:N	2.49	0.41
1:O:212:LYS:HG3	1:O:225:LEU:HB2	2.02	0.41
2:P:22:ARG:HH22	2:P:325:ASP:N	2.18	0.41
2:P:230:ILE:HD12	2:P:231:ALA:O	2.20	0.41
1:G:129:VAL:HG12	1:G:132:VAL:HB	2.01	0.41
1:G:180:GLY:H	2:F:188:LEU:HD22	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:201:LEU:H	1:G:201:LEU:HG	1.48	0.41
2:H:153:THR:OG1	2:H:212:ALA:HB2	2.19	0.41
2:H:267:ASN:OD1	2:H:268:GLU:HG2	2.19	0.41
2:H:273:LEU:HD13	2:H:291:SER:HB2	2.01	0.41
1:E:3:VAL:HB	1:E:27:VAL:HG22	2.02	0.41
1:E:90:ASP:HA	1:E:114:LYS:HZ2	1.84	0.41
2:F:318:GLY:CA	2:F:321:GLN:HB2	2.41	0.41
1:I:322:VAL:HA	1:I:325:ALA:HB3	2.01	0.41
2:J:244:LEU:HD21	2:J:246:VAL:HG13	2.01	0.41
1:K:8:PHE:CE1	1:K:13:ARG:HG2	2.55	0.41
1:K:139:HIS:NE2	1:K:332:TRP:O	2.52	0.41
1:K:203:ILE:HG13	1:K:233:PRO:HD3	2.02	0.41
2:L:186:ARG:HG2	2:L:197:ARG:O	2.20	0.41
2:L:272:ILE:H	2:L:272:ILE:HG12	1.62	0.41
2:L:292:SER:OG	2:L:311:ALA:HB1	2.20	0.41
1:A:58:LYS:HA	1:A:58:LYS:HD2	1.86	0.41
2:B:39:LYS:NZ	2:B:40:GLN:HG3	2.35	0.41
2:B:142:HIS:HB2	2:B:333:LYS:HG3	2.02	0.41
2:B:164:LEU:HG	2:B:261:PHE:CZ	2.55	0.41
2:B:244:LEU:HD21	2:B:246:VAL:HG13	2.02	0.41
1:C:37:VAL:O	1:C:41:THR:N	2.42	0.41
1:C:57:VAL:HG13	1:C:66:ILE:HG12	2.02	0.41
2:D:107:ALA:HA	2:D:110:HIS:CD2	2.55	0.41
2:D:119:LEU:HG	2:D:120:ILE:H	1.85	0.41
2:D:314:ASP:OD1	2:D:316:GLU:N	2.54	0.41
2:R:160:PHE:CD2	2:R:161:VAL:HG13	2.55	0.41
2:R:187:LEU:HB2	1:O:184:LEU:HD13	2.02	0.41
2:R:204:ASN:HB3	2:P:281:VAL:HB	2.01	0.41
1:O:190:HIS:CE1	1:O:195:ARG:HB2	2.55	0.41
2:P:10:ARG:H	2:P:10:ARG:CZ	2.33	0.41
2:P:76:VAL:HG21	2:P:84:LEU:HB3	2.01	0.41
1:G:137:TYR:OH	1:G:331:LYS:HB2	2.20	0.41
1:G:149:CYS:HB3	1:G:317:TYR:CD2	2.55	0.41
1:G:169:LYS:HE2	1:E:304:MET:SD	2.60	0.41
1:G:171:THR:O	1:G:243:VAL:N	2.53	0.41
2:H:231:ALA:O	2:H:232:LEU:HD23	2.21	0.41
2:H:238:ASN:HD22	2:H:239:VAL:N	2.16	0.41
2:H:282:SER:OG	2:F:204:ASN:ND2	2.54	0.41
1:E:241:ASP:HB2	1:E:307:VAL:HB	2.01	0.41
1:E:318:SER:O	1:E:321:VAL:HB	2.19	0.41
2:F:142:HIS:NE2	2:F:334:TRP:HA	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:3:VAL:HG23	1:I:26:ASP:H	1.85	0.41
2:J:15:PHE:CE2	2:J:323:VAL:HB	2.55	0.41
2:J:19:TRP:CH2	2:J:71:LYS:HG2	2.55	0.41
2:J:152:CYS:HB3	2:J:319:TYR:CG	2.55	0.41
1:K:3:VAL:O	1:K:28:VAL:HG13	2.20	0.41
1:K:26:ASP:OD2	1:K:28:VAL:HG12	2.20	0.41
1:K:170:GLY:O	1:K:225:LEU:HA	2.20	0.41
2:L:81:PRO:HB3	2:L:110:HIS:ND1	2.36	0.41
2:L:95:ILE:HG22	2:L:96:GLU:H	1.85	0.41
2:L:104:ARG:O	2:L:108:GLY:N	2.31	0.41
2:L:220:LEU:HD13	2:L:223:LEU:HD22	2.01	0.41
1:A:312:ASP:OD2	1:A:314:GLU:N	2.53	0.41
1:A:360:LEU:HA	1:G:195:ARG:HD2	2.01	0.41
2:B:58:VAL:HA	2:B:68:VAL:HA	2.02	0.41
1:C:24:PRO:O	1:C:25:LEU:HD13	2.21	0.41
1:C:190:HIS:O	1:C:196:ALA:HB2	2.20	0.41
1:C:272:ASP:O	1:C:291:THR:HA	2.20	0.41
1:C:289:SER:HA	1:C:320:ARG:NH1	2.35	0.41
2:D:29:VAL:HG12	2:D:31:VAL:O	2.19	0.41
2:D:180:SER:HA	2:D:236:THR:HG22	2.03	0.41
2:D:215:ALA:HA	2:D:218:LEU:HB2	2.00	0.41
2:D:247:GLN:HA	2:D:306:MET:HA	2.01	0.41
1:Q:39:SER:O	1:Q:43:LEU:HG	2.21	0.41
1:Q:214:VAL:HB	1:Q:225:LEU:HD22	2.02	0.41
1:Q:240:VAL:HG23	1:Q:241:ASP:C	2.41	0.41
2:R:22:ARG:NH2	2:R:324:VAL:HB	2.34	0.41
2:R:41:ALA:HA	2:R:44:LEU:HD12	2.02	0.41
2:R:195:LEU:O	2:R:199:ARG:HG2	2.20	0.41
2:R:210:THR:H	2:R:231:ALA:CB	2.33	0.41
2:R:240:SER:HG	2:R:241:VAL:N	2.18	0.41
1:O:18(B):HIS:HB3	1:O:53:PHE:CE2	2.54	0.41
1:O:162:ASP:HB2	1:O:167:ILE:HB	2.01	0.41
2:P:35:THR:HA	2:P:77:SER:HG	1.86	0.41
1:G:161:LEU:O	1:G:165:LEU:HD22	2.19	0.41
1:G:175:THR:O	1:G:238:SER:HA	2.20	0.41
1:G:320:ARG:HA	1:G:323:ASP:OD2	2.20	0.41
2:H:31:VAL:HG21	2:H:74:LYS:HZ2	1.82	0.41
2:H:211:GLY:HA2	2:H:214:LYS:HD2	2.01	0.41
2:H:295:ASP:OD2	2:H:298:LEU:N	2.49	0.41
1:E:17:ARG:CZ	1:E:53:PHE:HA	2.50	0.41
1:E:18:CYS:SG	1:E:319:GLN:NE2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:128:TYR:OH	1:E:136:ASP:O	2.26	0.41
1:E:157:PHE:CD1	1:E:158:VAL:HG23	2.55	0.41
2:F:8:PHE:HB3	2:F:34:ASP:OD2	2.20	0.41
2:F:32:ILE:HG22	2:F:33:ASN:N	2.35	0.41
2:F:38:VAL:HG11	2:F:64:SER:O	2.21	0.41
1:I:84:TRP:CD1	1:I:92:VAL:HG21	2.56	0.41
1:I:156:PRO:HB3	1:I:270:VAL:HG12	2.02	0.41
1:I:176:HIS:O	1:I:232:VAL:HG22	2.20	0.41
2:J:86:TRP:CD1	2:J:113:ALA:HB3	2.54	0.41
2:J:131:TYR:HA	2:J:131:TYR:HD1	1.62	0.41
2:J:197:ARG:HG3	2:J:206:VAL:HG11	2.01	0.41
2:J:259:ALA:O	2:J:263:GLU:N	2.31	0.41
2:J:308:LYS:NZ	2:L:230:ILE:H	2.19	0.41
1:K:38:LYS:NZ	1:K:39:SER:H	2.14	0.41
1:K:56:ASP:O	1:K:67:ASP:N	2.51	0.41
1:K:250:VAL:HG23	1:K:251:THR:O	2.20	0.41
2:L:35:THR:HG1	3:L:401:NAD:C6A	2.33	0.41
2:L:163:VAL:HG13	2:L:167:LYS:HZ1	1.85	0.41
2:L:205:ILE:HD13	2:L:206:VAL:N	2.36	0.41
2:L:294:ILE:HA	2:L:311:ALA:HB2	2.02	0.41
1:A:219:PRO:HB3	1:G:123(A):SER:OG	2.20	0.41
2:B:0:LYS:HG3	2:B:26:PRO:HA	2.01	0.41
2:B:1:LEU:HD11	2:B:334:TRP:CG	2.54	0.41
2:B:10:ARG:HH22	1:C:186:ASP:HB2	1.85	0.41
1:C:149:CYS:H	1:C:317:TYR:HE1	1.67	0.41
2:D:18:CYS:O	2:D:22:ARG:HG2	2.20	0.41
2:D:81:PRO:HB3	2:D:110:HIS:ND1	2.36	0.41
1:Q:18(B):HIS:HB3	1:Q:53:PHE:CZ	2.52	0.41
1:Q:60(A):ASP:O	1:Q:62:GLU:N	2.53	0.41
1:Q:175:THR:O	1:Q:238:SER:HA	2.21	0.41
1:Q:301:GLY:HA3	1:O:169:LYS:NZ	2.35	0.41
2:R:189:ASP:HA	2:R:199:ARG:HA	2.03	0.41
2:R:217:ALA:HA	2:R:224:LYS:HG2	2.02	0.41
2:R:241:VAL:HG13	2:R:311:ALA:C	2.41	0.41
2:R:255:GLU:HA	2:R:258:ASN:CG	2.41	0.41
2:R:267:ASN:OD1	2:R:268:GLU:HG2	2.21	0.41
2:R:328:ASP:O	2:R:331:ALA:HB3	2.21	0.41
1:O:18(A):TRP:HZ3	1:O:66:ILE:HG21	1.85	0.41
1:O:148:SER:OG	1:O:150:THR:HB	2.20	0.41
1:O:176:HIS:O	1:O:231:ARG:HA	2.19	0.41
2:P:19:TRP:CZ3	2:P:68:VAL:CG2	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:160:PHE:HB3	2:P:269:LEU:HD11	2.00	0.41
1:G:17:ARG:NH1	1:G:51:GLY:O	2.49	0.41
1:G:170:GLY:O	1:G:226:ASN:N	2.53	0.41
2:H:3:VAL:HG12	2:H:29:VAL:HG13	2.02	0.41
2:H:168:PHE:CZ	2:H:257:VAL:HA	2.55	0.41
2:H:305:ASP:O	2:H:307:VAL:HG23	2.20	0.41
1:E:41:THR:O	1:E:45:LYS:N	2.24	0.41
2:F:45:LEU:HG	2:F:54:PHE:HD2	1.86	0.41
2:F:152:CYS:HB3	2:F:319:TYR:CD2	2.56	0.41
2:F:274:SER:C	2:F:293:THR:HA	2.41	0.41
1:I:94:GLU:OE1	1:I:119:THR:OG1	2.39	0.41
1:I:152:ASN:N	1:I:152:ASN:ND2	2.66	0.41
1:I:246:ILE:HG23	1:I:248:LYS:N	2.35	0.41
1:I:306:LYS:HZ2	1:K:228:ILE:HG22	1.86	0.41
1:I:324:LEU:O	1:I:327:LEU:HB3	2.20	0.41
2:J:176:THR:HG23	2:J:230:ILE:HG13	2.01	0.41
2:J:325:ASP:O	2:J:329:ILE:HG13	2.19	0.41
1:K:11:ILE:HA	1:K:14:ASN:CB	2.46	0.41
1:K:134:GLU:CD	1:K:134:GLU:N	2.74	0.41
2:L:5:ILE:HA	2:L:94:VAL:HG13	2.03	0.41
2:L:96:GLU:HG3	2:L:101:PHE:HB2	2.02	0.41
1:A:108:HIS:CD2	1:A:108:HIS:H	2.37	0.41
1:A:332:TRP:CD1	1:A:333:PRO:HD2	2.54	0.41
2:B:31:VAL:O	2:B:32:ILE:HD13	2.20	0.41
2:B:141:THR:N	2:B:144:ASP:OD2	2.53	0.41
2:B:204:ASN:HD22	2:D:282:SER:N	2.18	0.41
1:C:10:ARG:HH12	1:C:48:SER:HB2	1.86	0.41
1:C:155:ALA:N	1:C:156:PRO:HD2	2.35	0.41
1:C:235:PRO:HG2	1:C:284:ARG:NH2	2.35	0.41
1:C:325:ALA:O	1:C:328:VAL:HB	2.20	0.41
2:D:5:ILE:HG22	2:D:6:ASN:N	2.36	0.41
2:D:37:GLY:HA2	1:G:342:GLY:O	2.20	0.41
1:Q:89:ILE:CG2	1:Q:92:VAL:HG22	2.50	0.41
1:Q:139:HIS:O	1:Q:140:VAL:HG23	2.20	0.41
3:Q:402:NAD:O2A	3:Q:402:NAD:H4B	2.21	0.41
2:R:54:PHE:O	2:R:56:ALA:N	2.53	0.41
2:R:206:VAL:O	2:R:208:THR:HG22	2.21	0.41
2:R:211:GLY:HA2	2:R:214:LYS:HD2	2.03	0.41
1:O:11:ILE:HG22	3:O:401:NAD:O2N	2.20	0.41
1:O:18(B):HIS:HB3	1:O:53:PHE:CZ	2.56	0.41
1:O:237:VAL:O	1:O:238:SER:OG	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:290:SER:OG	1:O:291:THR:N	2.53	0.41
2:P:148:SER:OG	2:P:149:ASN:N	2.54	0.41
1:G:81:LYS:H	1:G:81:LYS:HG2	1.50	0.41
1:G:137:TYR:O	1:G:331:LYS:NZ	2.53	0.41
1:G:175:THR:HG1	1:G:238:SER:HA	1.84	0.41
1:G:184:LEU:HD22	2:F:187:LEU:HA	2.01	0.41
2:H:7:GLY:O	2:H:9:GLY:N	2.53	0.41
2:H:86:TRP:HB2	2:H:114:GLY:C	2.40	0.41
1:E:194:ARG:HB3	1:E:204:VAL:CG1	2.51	0.41
1:E:211:ALA:HB3	1:E:212:LYS:HZ2	1.86	0.41
2:F:16:LEU:HD23	2:F:54:PHE:CE2	2.51	0.41
2:F:43:HIS:CD2	2:F:47:TYR:HE2	2.39	0.41
2:F:96:GLU:OE2	2:F:100:VAL:N	2.53	0.41
2:F:174:THR:HA	2:F:228:ASN:O	2.21	0.41
1:I:272:ASP:O	1:I:292:ILE:HG13	2.20	0.41
2:L:34:ASP:HA	3:L:401:NAD:C2A	2.49	0.41
2:L:86:TRP:HB3	2:L:91:ILE:HB	2.02	0.41
2:L:163:VAL:HG12	2:L:261:PHE:HE1	1.85	0.41
2:L:241:VAL:HG13	2:L:311:ALA:C	2.41	0.41
1:A:36:GLY:HA3	1:A:38:LYS:NZ	2.36	0.41
2:B:1:LEU:HD11	2:B:334:TRP:CE3	2.56	0.41
2:B:13:ARG:O	2:B:16:LEU:HB3	2.21	0.41
2:B:32:ILE:O	2:B:76:VAL:HG23	2.21	0.41
2:B:249:SER:OG	2:B:250:LYS:N	2.53	0.41
2:B:308:LYS:HB2	2:B:308:LYS:HE3	1.84	0.41
1:C:96:THR:HB	3:C:401:NAD:C4A	2.51	0.41
1:C:97:GLY:O	1:C:100:VAL:HG13	2.20	0.41
1:C:103:PRO:O	1:C:107:LYS:HG3	2.21	0.41
1:C:154:LEU:HA	1:C:157:PHE:CZ	2.56	0.41
1:C:165:LEU:HB2	1:C:246:ILE:HD11	2.01	0.41
1:C:260:ARG:O	1:C:264:ALA:N	2.42	0.41
1:C:276:ILE:HB	1:C:278:LEU:HD11	2.03	0.41
2:D:178:THR:HG23	2:D:243:ASP:OD2	2.20	0.41
2:D:272:ILE:H	2:D:272:ILE:HG12	1.64	0.41
1:Q:1:LEU:HD12	1:Q:1:LEU:HA	1.87	0.41
2:R:34:ASP:OD1	3:R:401:NAD:H1B	2.20	0.41
2:R:46:LYS:HA	2:R:46:LYS:HD2	1.92	0.41
2:R:86:TRP:HD1	2:R:113:ALA:HB3	1.79	0.41
2:R:91:ILE:HB	2:R:115:ALA:HA	2.02	0.41
2:R:186:ARG:HG3	2:R:190:ALA:O	2.20	0.41
2:R:305:ASP:O	2:R:307:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:57:VAL:O	1:O:58:LYS:NZ	2.52	0.41
1:O:107:LYS:HA	1:O:110:GLN:OE1	2.21	0.41
1:O:148:SER:HA	1:O:317:TYR:CE2	2.56	0.41
1:O:176:HIS:H	1:O:230:LEU:C	2.21	0.41
1:G:43:LEU:HA	2:F:199:ARG:HH12	1.86	0.41
1:G:56:ASP:OD1	1:G:58:LYS:HD3	2.21	0.41
1:G:191:ARG:HB2	1:G:191:ARG:NH1	2.36	0.41
1:E:84:TRP:N	1:E:111:ALA:O	2.54	0.41
1:E:139:HIS:CE1	1:E:332:TRP:HA	2.55	0.41
2:F:6:ASN:HA	2:F:33:ASN:HD22	1.85	0.41
2:F:157:LEU:HD12	2:F:158:ALA:N	2.36	0.41
1:I:201:LEU:H	1:I:201:LEU:HG	1.59	0.41
1:I:278:LEU:HB3	1:I:282:ASP:CB	2.50	0.41
1:I:289:SER:CB	1:I:320:ARG:HD2	2.51	0.41
2:J:1:LEU:HD11	2:J:334:TRP:CG	2.56	0.41
1:K:3:VAL:HG23	1:K:26:ASP:H	1.86	0.41
1:K:66:ILE:HD12	1:K:71:ILE:HD13	2.03	0.41
1:K:98:VAL:HG22	1:E:355:ASP:HA	2.03	0.41
1:K:139:HIS:O	1:K:140:VAL:HG23	2.19	0.41
2:L:103:ASP:C	2:L:128:ILE:HD11	2.41	0.41
2:L:142:HIS:CD2	2:L:334:TRP:HA	2.56	0.41
2:L:142:HIS:CG	2:L:334:TRP:HA	2.55	0.41
2:L:181:TYR:CD1	2:L:181:TYR:C	2.93	0.41
1:A:33:SER:OG	1:A:77:ARG:NH2	2.54	0.41
1:A:83:PRO:HG2	1:A:86:GLU:OE1	2.20	0.41
1:A:152:ASN:OD1	1:A:317:TYR:HE1	2.04	0.41
1:A:299:VAL:HA	1:A:306:LYS:H	1.86	0.41
2:B:219:VAL:HG23	2:B:220:LEU:HG	2.02	0.41
2:B:308:LYS:NZ	2:D:230:ILE:H	2.18	0.41
1:C:128:TYR:OH	1:C:137:TYR:HA	2.20	0.41
1:C:272:ASP:HB2	1:C:288:PHE:CD1	2.56	0.41
1:C:272:ASP:O	1:C:292:ILE:N	2.43	0.41
2:D:194:ASP:OD1	2:D:196:ARG:HG3	2.20	0.41
1:Q:0:LYS:HG2	1:Q:24:PRO:C	2.40	0.41
1:Q:94:GLU:CG	1:Q:99:PHE:HB2	2.50	0.41
1:Q:270:VAL:HG12	1:Q:271:LEU:HD12	2.02	0.41
2:R:46:LYS:HZ1	2:R:55:ASP:HA	1.86	0.41
1:O:8:PHE:CE1	1:O:13:ARG:HG2	2.55	0.41
1:O:96:THR:HG1	1:O:97:GLY:H	1.68	0.41
1:O:126:PRO:HB2	1:O:145:SER:H	1.86	0.41
1:O:139:HIS:CE1	1:O:333:PRO:HD2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:149:CYS:SG	1:O:150:THR:N	2.93	0.41
1:O:162:ASP:HB2	1:O:167:ILE:HD12	2.03	0.41
1:O:267:LEU:CD1	1:O:271:LEU:HD22	2.51	0.41
2:P:96:GLU:HG2	2:P:98:THR:HG23	2.03	0.41
2:P:104:ARG:NH2	2:P:129:PRO:HD3	2.34	0.41
2:P:118:VAL:HB	2:P:146:ILE:HG12	2.03	0.41
2:P:207:PRO:HA	2:P:232:LEU:HD23	2.03	0.41
1:G:184:LEU:N	2:F:187:LEU:HD22	2.36	0.41
1:G:332:TRP:CD2	1:G:333:PRO:HD2	2.55	0.41
2:H:94:VAL:O	2:H:95:ILE:HD13	2.20	0.41
2:H:153:THR:HG21	2:H:210:THR:HG21	2.02	0.41
1:E:101:ASP:HB3	1:E:122(A):LYS:HZ1	1.86	0.41
1:E:126:PRO:HG2	1:E:143:ILE:O	2.21	0.41
1:E:134:GLU:N	1:E:134:GLU:CD	2.74	0.41
1:E:327:LEU:O	1:E:331:LYS:N	2.37	0.41
2:F:135:VAL:HG22	2:F:162:LYS:HE3	2.02	0.41
2:F:179:HIS:O	2:F:234:VAL:HG22	2.21	0.41
1:I:107:LYS:HB2	1:I:108:HIS:CD2	2.55	0.41
1:I:139:HIS:HE1	1:I:328:VAL:HG12	1.85	0.41
1:I:194:ARG:HH12	1:I:204:VAL:HA	1.85	0.41
1:I:194:ARG:NH1	1:I:204:VAL:HA	2.36	0.41
2:J:9:GLY:O	2:J:13:ARG:N	2.42	0.41
2:J:26:PRO:HD2	2:J:27:LEU:HD22	2.02	0.41
2:J:96:GLU:OE2	2:J:101:PHE:N	2.52	0.41
2:J:157:LEU:HB2	2:J:161:VAL:HG11	2.01	0.41
2:J:194:ASP:OD2	2:J:196:ARG:HB2	2.21	0.41
2:J:321:GLN:HA	2:J:324:VAL:HB	2.02	0.41
1:K:79:PRO:HG3	1:K:108:HIS:CE1	2.55	0.41
1:K:124:ASP:HB2	1:E:102:GLY:C	2.40	0.41
1:K:148:SER:O	1:K:152:ASN:N	2.32	0.41
1:K:272:ASP:HB2	1:K:288:PHE:CD1	2.54	0.41
1:K:319:GLN:HB3	1:K:320:ARG:NH2	2.35	0.41
1:K:361:TYR:H	1:E:195:ARG:HH22	1.67	0.41
2:L:15:PHE:CE2	2:L:323:VAL:HB	2.56	0.41
2:L:205:ILE:HD13	2:L:206:VAL:C	2.41	0.41
2:L:205:ILE:HG12	2:L:234:VAL:HA	2.02	0.41
1:A:109:ILE:HD11	1:A:116:VAL:HG23	2.02	0.41
1:A:153:CYS:O	1:A:156:PRO:HD2	2.20	0.41
1:A:186:ASP:HA	1:A:196:ALA:O	2.21	0.41
1:A:283:PHE:HE2	1:A:310:TRP:CG	2.37	0.41
1:A:324:LEU:O	1:A:327:LEU:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:39:LYS:HG2	2:B:40:GLN:H	1.84	0.41
2:B:179:HIS:N	2:B:232:LEU:O	2.54	0.41
2:B:210:THR:HG23	2:B:212:ALA:HB3	2.01	0.41
2:B:210:THR:N	2:B:231:ALA:HB2	2.36	0.41
1:C:1:LEU:O	1:C:3:VAL:HG23	2.21	0.41
1:C:16:LEU:HG	1:C:18(B):HIS:HB2	2.02	0.41
1:C:84:TRP:CB	1:C:89:ILE:HB	2.51	0.41
1:C:173:THR:HG23	1:C:228:ILE:HD13	2.02	0.41
1:C:211:ALA:O	1:C:225:LEU:HB2	2.21	0.41
1:C:250:VAL:HG23	1:C:251:THR:O	2.19	0.41
1:C:260:ARG:HG3	1:C:273:VAL:HG21	2.03	0.41
2:D:1:LEU:HD21	2:D:334:TRP:CD2	2.56	0.41
2:D:251:LYS:HZ2	2:D:305:ASP:HB3	1.86	0.41
1:Q:5:ILE:HG12	1:Q:93:ILE:CG1	2.51	0.41
1:Q:15:PHE:CZ	1:Q:322:VAL:HG13	2.48	0.41
2:R:8:PHE:HD2	2:R:41:ALA:HB1	1.84	0.41
2:R:162:LYS:HE3	2:R:162:LYS:HB3	1.83	0.41
1:O:1:LEU:O	1:O:3:VAL:HG23	2.20	0.41
1:O:38:LYS:HA	1:O:59:ILE:HD13	2.03	0.41
1:O:84:TRP:HB2	1:O:112:GLY:O	2.21	0.41
1:O:162:ASP:O	1:O:166:GLY:N	2.54	0.41
2:P:13:ARG:NH1	2:P:44:LEU:HD22	2.35	0.41
2:P:18:CYS:O	2:P:22:ARG:HG2	2.20	0.41
2:P:94:VAL:HG12	2:P:118:VAL:HG22	2.03	0.41
2:P:131:TYR:CD2	2:P:147:ILE:HG21	2.56	0.41
2:P:174:THR:HA	2:P:228:ASN:O	2.21	0.41
2:P:223:LEU:HA	2:P:227:LEU:HD23	2.02	0.41
1:G:162:ASP:HA	1:G:167:ILE:HG13	2.03	0.41
1:G:169:LYS:N	1:G:245:ASN:OD1	2.48	0.41
1:G:198:ALA:HB1	1:G:201:LEU:HD21	2.02	0.41
1:G:253:GLU:HA	1:G:256:ASN:HB2	2.02	0.41
1:G:284:ARG:C	1:G:286:SER:H	2.24	0.41
2:H:245:VAL:HG22	2:H:308:LYS:HA	2.03	0.41
2:H:255:GLU:HA	2:H:258:ASN:CG	2.41	0.41
1:E:63:THR:HA	1:E:73:VAL:HG23	2.03	0.41
1:E:91:ILE:HG13	1:E:115:LYS:HB2	2.01	0.41
1:E:346:GLU:O	1:E:349:CYS:N	2.53	0.41
2:F:31:VAL:HA	2:F:74:LYS:HB2	2.02	0.41
2:F:295:ASP:O	2:F:299:THR:HG23	2.20	0.41
1:I:41:THR:HG21	1:I:59:ILE:HG12	2.02	0.41
1:I:158:VAL:HA	1:I:161:LEU:HD21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:186:ASP:HB2	2:L:10:ARG:HH12	1.86	0.41
1:I:236:ASN:OD1	1:I:313:ASN:HB2	2.21	0.41
1:I:254:ASP:O	1:I:258:ALA:N	2.31	0.41
1:I:303:ASP:OD1	1:K:169:LYS:NZ	2.50	0.41
2:J:80:ASN:ND2	2:J:82:VAL:HB	2.35	0.41
2:J:165:ASP:HA	2:J:169:GLY:HA2	2.01	0.41
2:J:172:LYS:HA	2:J:227:LEU:HD22	2.03	0.41
1:K:84:TRP:N	1:K:111:ALA:O	2.54	0.41
1:K:203:ILE:CG2	1:K:230:LEU:HB3	2.51	0.41
1:K:256:ASN:C	1:K:260:ARG:HE	2.23	0.41
1:K:316:GLY:O	1:K:320:ARG:HG2	2.21	0.41
2:L:30:VAL:HG13	2:L:71:LYS:NZ	2.33	0.41
2:L:37:GLY:O	2:L:40:GLN:HB2	2.21	0.41
2:L:82:VAL:HA	2:L:113:ALA:HB2	2.03	0.41
2:L:142:HIS:H	2:L:333:LYS:HZ3	1.68	0.41
2:L:192:HIS:ND1	2:L:197:ARG:HB2	2.36	0.41
2:L:283:ILE:HG23	2:L:284:ASP:OD1	2.21	0.41
1:A:45:LYS:HD2	1:A:53:PHE:HB3	2.03	0.41
1:A:85:ALA:HB2	1:A:112:GLY:HA2	2.03	0.41
1:A:115:LYS:HD2	1:A:328:VAL:HG11	2.03	0.41
1:A:139(A):ASP:OD1	1:A:139(A):ASP:N	2.54	0.41
1:A:181:ASP:CG	1:G:362:GLU:HA	2.41	0.41
1:A:213:ALA:O	1:A:216:LEU:HB2	2.20	0.41
2:B:5:ILE:O	2:B:33:ASN:N	2.47	0.41
2:B:81:PRO:HA	2:B:84:LEU:HD12	2.03	0.41
2:B:120:ILE:O	2:B:148:SER:OG	2.39	0.41
2:B:157:LEU:O	2:B:161:VAL:HG22	2.21	0.41
2:B:180:SER:HG	2:B:181:TYR:N	2.18	0.41
2:B:195:LEU:HB2	2:D:279:PRO:HB2	2.02	0.41
2:B:240:SER:HB3	2:B:313:TYR:CZ	2.56	0.41
2:B:280:LEU:HB3	2:B:284:ASP:HB2	2.03	0.41
1:C:10:ARG:HB2	3:C:401:NAD:O1N	2.21	0.41
1:C:31:ASN:HA	1:C:74:VAL:HB	2.02	0.41
1:C:31:ASN:HA	1:C:74:VAL:C	2.41	0.41
1:C:272:ASP:O	1:C:292:ILE:HG12	2.21	0.41
1:C:276:ILE:O	1:C:278:LEU:HG	2.20	0.41
2:D:60:THR:CA	2:D:66:ILE:HG23	2.51	0.41
2:D:64:SER:HB3	2:D:74:LYS:HZ3	1.85	0.41
2:D:86:TRP:HD1	2:D:113:ALA:C	2.25	0.41
2:D:186:ARG:HH11	2:D:186:ARG:N	2.19	0.41
2:D:192:HIS:CE1	2:D:197:ARG:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:192:HIS:ND1	2:D:194:ASP:N	2.69	0.41
1:Q:18:CYS:HB3	1:Q:20:ARG:HH21	1.86	0.41
1:Q:29:VAL:HG22	1:Q:74:VAL:HG22	2.02	0.41
1:Q:56:ASP:OD1	1:Q:58:LYS:HD3	2.21	0.41
1:Q:99:PHE:CD1	1:Q:104:GLY:HA3	2.56	0.41
1:Q:254:ASP:HA	1:Q:257:ASN:HD22	1.86	0.41
1:Q:279:VAL:HG12	1:O:194:ARG:HH11	1.86	0.41
2:R:5:ILE:HG23	2:R:95:ILE:O	2.20	0.41
2:R:104:ARG:HG3	2:R:146:ILE:HD13	2.01	0.41
2:R:168:PHE:CZ	2:R:257:VAL:HA	2.56	0.41
2:R:184:ASP:OD1	2:R:197:ARG:NH1	2.54	0.41
2:R:245:VAL:HG22	2:R:308:LYS:HA	2.03	0.41
2:R:306:MET:CB	2:P:172:LYS:HD2	2.50	0.41
1:O:15:PHE:CA	1:O:318:SER:HB2	2.51	0.41
1:O:84:TRP:CB	1:O:89:ILE:HB	2.44	0.41
1:O:192:ASP:CG	1:O:195:ARG:H	2.23	0.41
1:O:226:ASN:HD22	1:O:226:ASN:HA	1.64	0.41
1:O:228:ILE:HD11	1:O:230:LEU:HD21	2.03	0.41
1:O:297:THR:OG1	1:O:308:VAL:HB	2.21	0.41
2:P:14:ASN:OD1	2:P:317:TRP:HA	2.21	0.41
2:P:163:VAL:HA	2:P:166:GLN:CD	2.41	0.41
2:P:196:ARG:HB2	2:P:206:VAL:HG13	2.03	0.41
2:P:238:ASN:CG	2:P:239:VAL:H	2.25	0.41
1:G:29:VAL:HG23	1:G:73:VAL:N	2.35	0.41
1:G:48:SER:HA	2:H:283:ILE:HG21	2.01	0.41
1:G:139:HIS:HE1	1:G:333:PRO:HD3	1.83	0.41
1:G:181:ASP:CG	1:G:231:ARG:HH12	2.25	0.41
1:G:185:LEU:C	1:G:198:ALA:HA	2.41	0.41
1:G:197:ARG:NH1	1:E:279:VAL:HG23	2.36	0.41
1:G:273:VAL:HA	1:G:292:ILE:O	2.21	0.41
2:H:15:PHE:CE1	2:H:324:VAL:HG13	2.55	0.41
2:H:223:LEU:HD12	2:H:223:LEU:H	1.86	0.41
1:E:15:PHE:HA	1:E:318:SER:HB2	2.03	0.41
1:E:74:VAL:HG11	1:E:82:LEU:HD13	2.01	0.41
1:E:89:ILE:O	1:E:114:LYS:HE3	2.21	0.41
1:E:148:SER:O	1:E:151:THR:N	2.50	0.41
1:E:212:LYS:HD2	1:E:226:ASN:HD22	1.85	0.41
1:E:262:ALA:C	1:E:265:GLY:H	2.23	0.41
1:E:270:VAL:HG13	1:E:289:SER:CB	2.49	0.41
2:F:142:HIS:HD2	2:F:336:ALA:N	2.11	0.41
2:F:173:GLY:N	2:F:226:LYS:O	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:252:THR:N	2:F:304:ASP:HB3	2.27	0.41
1:I:17:ARG:NH2	1:I:47:ASP:HB3	2.35	0.41
1:I:38:LYS:H	1:I:38:LYS:HG3	1.62	0.41
1:I:107:LYS:H	1:I:107:LYS:HG3	1.51	0.41
2:J:1:LEU:HD22	2:J:331:ALA:HA	2.03	0.41
2:J:107:ALA:HA	2:J:110:HIS:CD2	2.56	0.41
2:J:137:GLU:O	2:J:140:TYR:HB3	2.21	0.41
2:J:210:THR:HB	2:J:233:ARG:HH12	1.85	0.41
2:J:280:LEU:HB3	2:J:284:ASP:HB2	2.02	0.41
1:K:1:LEU:O	1:K:3:VAL:HG23	2.21	0.41
1:K:93:ILE:HD13	1:K:117:ILE:HB	2.02	0.41
1:K:257:ASN:OD1	1:K:260:ARG:NH1	2.54	0.41
2:L:20:HIS:CE1	2:L:69:ASP:CG	2.94	0.41
1:A:45:LYS:NZ	1:A:55:ALA:O	2.41	0.41
1:A:47:ASP:HB3	1:A:51:GLY:O	2.21	0.41
1:A:91:ILE:HG23	1:A:115:LYS:HB2	2.03	0.41
1:A:167:ILE:HG23	1:A:246:ILE:HA	2.02	0.41
1:A:246:ILE:HA	1:A:246:ILE:HD12	1.96	0.41
2:B:46:LYS:HD2	2:B:46:LYS:HA	1.86	0.41
2:B:127:ASP:N	2:B:127:ASP:OD1	2.43	0.41
2:B:170:ILE:HB	2:B:227:LEU:HD11	2.03	0.41
2:B:187:LEU:CG	1:C:180:GLY:HA2	2.51	0.41
2:B:259:ALA:O	2:B:263:GLU:N	2.31	0.41
2:B:261:PHE:O	2:B:264:SER:OG	2.38	0.41
1:C:13:ARG:HE	1:C:43:LEU:C	2.25	0.41
1:C:84:TRP:CE2	1:C:111:ALA:HB3	2.56	0.41
1:C:124:ASP:HB2	1:O:102:GLY:C	2.41	0.41
1:C:298:MET:HE3	1:C:298:MET:HB3	1.86	0.41
2:D:15:PHE:O	2:D:19:TRP:N	2.35	0.41
2:D:117:LYS:HA	2:D:145:THR:OG1	2.20	0.41
2:D:252:THR:N	2:D:304:ASP:HB3	2.36	0.41
1:Q:184:LEU:HD11	2:P:181:TYR:CE1	2.56	0.41
1:Q:184:LEU:HG	1:Q:185:LEU:HD23	2.03	0.41
2:R:107:ALA:O	2:R:111:LEU:N	2.27	0.41
2:R:192:HIS:HA	2:R:193:ARG:NH1	2.36	0.41
2:R:205:ILE:HG13	2:R:234:VAL:CA	2.45	0.41
1:O:2:LYS:NZ	1:O:88:GLY:HA3	2.36	0.41
2:P:220:LEU:HB2	2:P:223:LEU:HD22	2.03	0.41
2:P:295:ASP:O	2:P:299:THR:HG23	2.21	0.41
1:G:4:ALA:O	1:G:93:ILE:HG12	2.21	0.41
1:G:42:HIS:O	1:G:46:TYR:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:261:LYS:NZ	1:G:261:LYS:HB3	2.35	0.41
2:H:45:LEU:HD12	2:H:45:LEU:HA	1.82	0.41
2:H:230:ILE:HG12	2:F:308:LYS:NZ	2.35	0.41
2:H:247:GLN:HG3	2:H:305:ASP:OD1	2.21	0.41
1:E:10:ARG:HA	1:E:13:ARG:CZ	2.51	0.41
1:E:83:PRO:HA	1:E:111:ALA:O	2.20	0.41
1:E:214:VAL:HG23	1:E:225:LEU:HD13	2.03	0.41
1:E:322:VAL:HA	1:E:325:ALA:HB3	2.03	0.41
2:F:117:LYS:HD2	2:F:145:THR:HA	2.03	0.41
1:I:84:TRP:HB2	1:I:112:GLY:C	2.41	0.40
1:I:151:THR:HA	1:I:154:LEU:HB3	2.03	0.40
1:I:362:GLU:HA	1:Q:181:ASP:HB3	2.03	0.40
2:J:204:ASN:HD22	2:L:282:SER:N	2.17	0.40
2:J:206:VAL:O	2:J:232:LEU:HA	2.21	0.40
2:J:283:ILE:HG22	2:L:204:ASN:ND2	2.36	0.40
2:J:293:THR:N	2:J:312:TRP:O	2.28	0.40
1:K:81:LYS:C	1:K:83:PRO:HD3	2.42	0.40
1:K:84:TRP:HE1	1:K:108:HIS:CA	2.34	0.40
1:K:139:HIS:CE1	1:K:332:TRP:CD2	3.09	0.40
1:K:182:GLN:OE1	1:K:231:ARG:NH2	2.53	0.40
1:K:207:SER:HA	1:K:228:ILE:HA	2.02	0.40
1:K:293:ASP:O	1:K:297:THR:OG1	2.38	0.40
2:L:3:VAL:N	2:L:28:ASP:O	2.48	0.40
2:L:16:LEU:HD13	2:L:45:LEU:HD13	2.04	0.40
2:L:186:ARG:HH22	2:L:192:HIS:HD2	1.69	0.40
2:L:226:LYS:HD3	2:L:226:LYS:H	1.86	0.40
1:A:60(A):ASP:O	1:A:63:THR:N	2.54	0.40
1:A:194:ARG:HH12	1:A:204:VAL:HA	1.87	0.40
1:A:261:LYS:O	1:A:265:GLY:N	2.54	0.40
2:B:3:VAL:HG21	2:B:27:LEU:HD12	2.03	0.40
2:B:226:LYS:HG3	2:B:227:LEU:H	1.86	0.40
2:B:295:ASP:OD1	2:B:298:LEU:N	2.52	0.40
2:B:300:MET:HB3	2:B:308:LYS:HB3	2.03	0.40
1:C:1:LEU:N	1:C:25:LEU:HA	2.36	0.40
1:C:32:ASP:CG	1:C:40:ALA:HB2	2.41	0.40
1:C:171:THR:HB	1:C:226:ASN:HB3	2.02	0.40
2:D:64:SER:O	2:D:74:LYS:HD3	2.21	0.40
2:D:86:TRP:HA	2:D:89:MET:HE2	2.03	0.40
2:D:148:SER:OG	2:D:149:ASN:O	2.39	0.40
2:D:165:ASP:HA	2:D:169:GLY:H	1.86	0.40
2:D:172:LYS:NZ	2:D:172:LYS:HB2	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:180:SER:HB2	2:D:236:THR:HG23	2.02	0.40
1:Q:115:LYS:NZ	1:Q:139(A):ASP:H	2.19	0.40
2:R:48:ASP:HB3	2:R:52:GLY:O	2.21	0.40
2:R:102:VAL:HG21	2:R:125:LYS:HD2	2.03	0.40
2:R:240:SER:HB3	2:R:313:TYR:CZ	2.57	0.40
2:R:244:LEU:HD23	2:R:309:VAL:HG21	2.02	0.40
2:R:255:GLU:O	2:R:258:ASN:N	2.53	0.40
1:O:91:ILE:HG13	1:O:115:LYS:HB2	2.03	0.40
1:O:183:ARG:NE	1:O:188:SER:O	2.54	0.40
1:O:190:HIS:CE1	1:O:192:ASP:H	2.38	0.40
2:P:244:LEU:O	2:P:309:VAL:HG13	2.20	0.40
1:G:258:ALA:HB1	1:G:261:LYS:HZ1	1.86	0.40
2:H:8:PHE:CE1	2:H:13:ARG:HG3	2.55	0.40
2:H:127:ASP:N	2:H:127:ASP:OD1	2.53	0.40
2:H:130:THR:HG23	2:H:136:ASN:ND2	2.36	0.40
2:H:281:VAL:HG12	2:F:196:ARG:HH12	1.85	0.40
1:E:64:PHE:CE1	1:E:71:ILE:HB	2.56	0.40
1:E:125:ILE:O	1:E:127:THR:N	2.54	0.40
1:E:273:VAL:HG22	1:E:292:ILE:HD13	2.03	0.40
2:F:10:ARG:CZ	2:F:10:ARG:HB3	2.50	0.40
2:F:38:VAL:HG22	2:F:39:LYS:HZ3	1.86	0.40
2:F:251:LYS:HD2	2:F:304:ASP:HB2	2.03	0.40
1:I:5:ILE:O	1:I:31:ASN:N	2.54	0.40
1:I:30:VAL:O	1:I:73:VAL:HA	2.22	0.40
1:I:298:MET:SD	1:K:226:ASN:ND2	2.95	0.40
1:I:304:MET:H	1:K:169:LYS:NZ	2.12	0.40
2:J:32:ILE:O	2:J:76:VAL:HG23	2.21	0.40
2:J:163:VAL:HG13	2:J:167:LYS:HD3	2.03	0.40
2:J:216:VAL:HG13	2:J:217:ALA:H	1.86	0.40
2:J:238:ASN:CG	2:J:239:VAL:H	2.24	0.40
1:K:5:ILE:HG22	1:K:7:GLY:O	2.21	0.40
1:K:16:LEU:HD11	1:K:66:ILE:HD13	2.03	0.40
1:K:194:ARG:HG3	1:K:206:THR:OG1	2.22	0.40
1:K:276:ILE:HB	1:K:278:LEU:HD11	2.03	0.40
2:L:108:GLY:O	2:L:112:GLN:N	2.40	0.40
2:L:289:ASP:HB3	2:L:321:GLN:HG3	2.04	0.40
1:A:91:ILE:HD11	1:A:332:TRP:CZ3	2.56	0.40
1:A:139:HIS:CE1	1:A:328:VAL:HG12	2.56	0.40
1:A:139:HIS:HE1	1:A:328:VAL:HG12	1.86	0.40
1:A:270:VAL:HA	1:A:289:SER:CB	2.51	0.40
1:A:299:VAL:HA	1:A:305:VAL:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:39:LYS:O	2:B:43:HIS:CG	2.74	0.40
2:B:205:ILE:CD1	2:B:234:VAL:HG12	2.52	0.40
2:B:216:VAL:O	2:B:220:LEU:HB2	2.21	0.40
1:C:1:LEU:HD13	1:C:1:LEU:HA	1.84	0.40
1:C:135:LYS:C	1:C:331:LYS:HZ1	2.25	0.40
1:C:207:SER:OG	1:C:227:GLY:O	2.17	0.40
1:C:256:ASN:C	1:C:260:ARG:HE	2.25	0.40
2:D:17:ARG:HA	2:D:54:PHE:CZ	2.56	0.40
2:D:179:HIS:O	2:D:234:VAL:HG22	2.21	0.40
1:Q:6:ASN:HD22	1:Q:94:GLU:HA	1.86	0.40
1:Q:32:ASP:CG	1:Q:40:ALA:HB2	2.42	0.40
1:Q:94:GLU:HG3	1:Q:99:PHE:HB2	2.03	0.40
1:Q:137:TYR:CE1	1:Q:139:HIS:HA	2.55	0.40
1:Q:203:ILE:HG23	1:Q:233:PRO:HD3	2.03	0.40
1:O:62:GLU:HB2	1:O:72:LYS:HZ1	1.86	0.40
2:P:8:PHE:CZ	2:P:13:ARG:HG3	2.56	0.40
2:P:10:ARG:HH22	2:P:13:ARG:NH1	2.19	0.40
2:P:86:TRP:HD1	2:P:113:ALA:C	2.23	0.40
1:G:20:ARG:HD2	1:G:20:ARG:HA	1.84	0.40
1:G:149:CYS:HB3	1:G:317:TYR:CG	2.56	0.40
2:H:269:LEU:HA	2:H:272:ILE:HB	2.03	0.40
2:H:303:GLY:HA3	2:F:172:LYS:HE2	2.03	0.40
1:E:29:VAL:HB	1:E:72:LYS:HB3	2.04	0.40
1:E:38:LYS:HE3	1:E:38:LYS:HB2	1.94	0.40
1:E:81:LYS:HE3	1:E:81:LYS:HB3	1.84	0.40
1:E:203:ILE:HG23	1:E:230:LEU:HB3	2.02	0.40
1:E:267:LEU:CD1	1:E:271:LEU:HD22	2.49	0.40
2:F:87:GLY:CA	2:F:114:GLY:HA3	2.51	0.40
2:F:169:GLY:O	2:F:249:SER:N	2.28	0.40
2:F:244:LEU:O	2:F:309:VAL:HG13	2.22	0.40
1:I:128:TYR:HA	1:I:133:ASN:CG	2.42	0.40
1:I:154:LEU:HD12	1:I:157:PHE:HE2	1.86	0.40
1:I:167:ILE:HA	1:I:247:GLU:H	1.85	0.40
1:I:192:ASP:OD1	1:I:195:ARG:N	2.54	0.40
1:I:258:ALA:HA	1:I:261:LYS:HB3	2.03	0.40
1:I:317:TYR:O	1:I:321:VAL:HG23	2.22	0.40
1:I:362:GLU:N	1:Q:195:ARG:HH22	2.19	0.40
1:K:137:TYR:HE2	1:K:327:LEU:HG	1.84	0.40
1:K:235:PRO:HG2	1:K:284:ARG:NH2	2.36	0.40
1:K:283:PHE:CE2	1:K:310:TRP:CD2	3.06	0.40
1:K:318:SER:O	1:K:322:VAL:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:5:ILE:HG22	2:L:6:ASN:N	2.36	0.40
2:L:11:ILE:HA	2:L:14:ASN:CB	2.45	0.40
2:L:160:PHE:HB2	2:L:261:PHE:CZ	2.56	0.40
2:L:177:THR:O	2:L:232:LEU:N	2.52	0.40
2:L:215:ALA:HA	2:L:218:LEU:HB2	2.03	0.40
1:A:17:ARG:NH2	1:A:47:ASP:HB3	2.36	0.40
1:A:49:ILE:HG21	1:A:284:ARG:NH2	2.37	0.40
1:A:84:TRP:HB2	1:A:112:GLY:C	2.41	0.40
1:A:135:LYS:HA	1:A:135:LYS:HD2	1.78	0.40
1:A:152:ASN:HD22	1:A:152:ASN:H	1.64	0.40
1:A:235:PRO:HG2	1:A:284:ARG:NH1	2.31	0.40
1:A:236:ASN:ND2	1:A:314:GLU:H	2.16	0.40
1:A:259:PHE:HB3	1:A:273:VAL:HG21	2.03	0.40
2:B:17:ARG:NH2	2:B:55:ASP:OD1	2.55	0.40
2:B:196:ARG:NH1	2:D:280:LEU:H	2.18	0.40
2:B:252:THR:H	2:B:304:ASP:HB3	1.87	0.40
2:B:281:VAL:HG11	2:D:201:ALA:HB2	2.03	0.40
2:B:291:SER:HB3	2:B:322:ARG:HD2	2.03	0.40
1:C:84:TRP:HA	1:C:87:LEU:HB2	2.03	0.40
1:C:217:VAL:C	1:C:218:LEU:HD12	2.41	0.40
2:D:132:VAL:N	2:D:136:ASN:HB2	2.32	0.40
2:D:172:LYS:O	2:D:247:GLN:N	2.49	0.40
1:Q:219:PRO:O	1:Q:222:LYS:HB2	2.21	0.40
1:Q:251:THR:HG22	1:Q:252:ALA:H	1.86	0.40
1:Q:284:ARG:C	1:Q:286:SER:H	2.25	0.40
2:R:1:LEU:HD22	2:R:331:ALA:HB2	2.04	0.40
2:R:39:LYS:HZ1	2:R:40:GLN:HG3	1.86	0.40
2:R:154:THR:HG21	2:R:215:ALA:HB3	2.03	0.40
2:R:178:THR:HG23	2:R:243:ASP:OD2	2.22	0.40
1:O:56:ASP:N	1:O:67:ASP:OD2	2.54	0.40
1:O:135:LYS:HD2	1:O:331:LYS:HE2	2.03	0.40
1:O:193:LEU:HD13	1:O:194:ARG:HG2	2.04	0.40
1:O:262:ALA:O	1:O:265:GLY:N	2.54	0.40
2:P:4:ALA:O	2:P:5:ILE:HD13	2.21	0.40
2:P:24:ASP:O	2:P:26:PRO:HD3	2.22	0.40
2:P:93:LEU:HA	2:P:117:LYS:HB2	2.03	0.40
2:P:179:HIS:ND1	2:P:233:ARG:HG2	2.37	0.40
2:P:316:GLU:HG2	2:P:317:TRP:H	1.86	0.40
1:G:171:THR:HA	1:G:226:ASN:O	2.22	0.40
1:G:270:VAL:C	1:G:288:PHE:HD2	2.25	0.40
1:E:37:VAL:HG22	1:E:73:VAL:HG11	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:59:ILE:HA	1:E:64:PHE:CB	2.51	0.40
1:E:84:TRP:HB2	1:E:112:GLY:O	2.21	0.40
1:E:90:ASP:OD2	1:E:91:ILE:HD12	2.20	0.40
1:E:168:VAL:HB	1:E:245:ASN:OD1	2.22	0.40
1:I:108:HIS:C	1:I:111:ALA:H	2.24	0.40
2:J:8:PHE:H	2:J:34:ASP:HB2	1.87	0.40
2:J:10:ARG:H	3:J:401:NAD:PA	2.43	0.40
2:J:98:THR:HA	3:J:401:NAD:C4A	2.51	0.40
2:J:153:THR:HG1	2:J:210:THR:HG1	1.61	0.40
1:K:7:GLY:HA2	1:K:31:ASN:HB3	2.03	0.40
1:K:31:ASN:HA	1:K:74:VAL:HB	2.03	0.40
1:K:81:LYS:HE3	1:K:81:LYS:HB3	1.80	0.40
1:K:84:TRP:CB	1:K:89:ILE:HB	2.50	0.40
1:K:238:SER:O	1:K:311:TYR:N	2.54	0.40
2:L:17:ARG:HA	2:L:54:PHE:CZ	2.57	0.40
1:A:84:TRP:HB2	1:A:112:GLY:O	2.21	0.40
2:B:182:THR:O	2:B:185:GLN:HB2	2.22	0.40
1:C:15:PHE:HZ	1:C:322:VAL:HA	1.87	0.40
1:C:246:ILE:HG22	1:C:303:ASP:HA	2.04	0.40
2:D:20:HIS:HA	2:D:23:LYS:NZ	2.36	0.40
2:D:239:VAL:HG22	2:D:314:ASP:CA	2.50	0.40
2:D:261:PHE:HD1	2:D:261:PHE:HA	1.65	0.40
2:D:314:ASP:CG	2:D:318:GLY:H	2.24	0.40
1:Q:160:VAL:HA	1:Q:163:GLU:OE2	2.22	0.40
1:Q:194:ARG:HH22	1:O:279:VAL:HG22	1.86	0.40
1:Q:226:ASN:HD21	1:O:298:MET:CE	2.35	0.40
1:Q:244:VAL:HB	1:Q:246:ILE:HD12	2.04	0.40
1:Q:340:ALA:O	1:Q:342:GLY:N	2.53	0.40
2:R:54:PHE:C	2:R:56:ALA:N	2.74	0.40
2:R:168:PHE:CE2	2:R:256:GLU:HG2	2.54	0.40
2:R:169:GLY:HA3	2:R:249:SER:HG	1.87	0.40
1:O:42:HIS:HE1	2:P:279:PRO:O	2.04	0.40
1:O:100:VAL:HB	1:O:122(A):LYS:HD3	2.03	0.40
1:O:127:THR:HG21	1:O:216:LEU:HB3	2.02	0.40
1:O:253:GLU:OE1	1:O:254:ASP:N	2.55	0.40
2:P:157:LEU:O	2:P:161:VAL:HG22	2.22	0.40
2:P:274:SER:C	2:P:293:THR:HA	2.41	0.40
2:P:276:CYS:O	2:P:296:SER:OG	2.39	0.40
1:G:17:ARG:HD2	1:G:53:PHE:CG	2.57	0.40
1:G:85:ALA:CA	1:G:112:GLY:HA3	2.51	0.40
1:G:142:ASN:O	1:G:144:ILE:HD13	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:44:LEU:HD23	2:H:44:LEU:HA	1.86	0.40
2:H:130:THR:HG1	2:H:131:TYR:N	2.20	0.40
2:H:168:PHE:HA	2:H:250:LYS:HE2	2.02	0.40
2:H:192:HIS:HA	2:H:193:ARG:NH1	2.37	0.40
2:H:206:VAL:O	2:H:208:THR:HG22	2.21	0.40
1:E:212:LYS:HD2	1:E:226:ASN:HA	2.04	0.40
1:E:314:GLU:O	1:E:318:SER:N	2.48	0.40
2:F:104:ARG:H	2:F:127:ASP:CG	2.24	0.40
1:I:22:ASP:OD1	1:I:22:ASP:N	2.49	0.40
1:I:139:HIS:NE2	1:I:332:TRP:HA	2.36	0.40
1:I:155:ALA:O	1:I:158:VAL:HG12	2.22	0.40
1:I:201:LEU:HD12	1:I:202:ASN:OD1	2.21	0.40
2:J:48:ASP:N	2:J:53:THR:HA	2.30	0.40
2:J:56:ALA:HB1	2:J:69:ASP:OD2	2.22	0.40
2:J:174:THR:O	2:J:244:LEU:HD12	2.21	0.40
2:J:181:TYR:N	2:J:236:THR:O	2.47	0.40
1:K:29:VAL:HG23	1:K:72:LYS:HB3	2.04	0.40
1:K:92:VAL:O	1:K:117:ILE:N	2.41	0.40
1:K:127:THR:HA	1:K:145:SER:OG	2.22	0.40
1:K:178:TYR:CE1	1:K:235:PRO:HA	2.56	0.40
2:L:20:HIS:HA	2:L:23:LYS:NZ	2.36	0.40
2:L:165:ASP:HA	2:L:169:GLY:H	1.86	0.40
1:A:230:LEU:HA	1:A:230:LEU:HD23	1.67	0.40
1:A:272:ASP:O	1:A:292:ILE:HG13	2.22	0.40
1:A:304:MET:HE1	1:C:245:ASN:N	2.35	0.40
2:B:177:THR:HG1	2:B:178:THR:H	1.70	0.40
2:B:283:ILE:H	2:D:204:ASN:HD22	1.68	0.40
1:C:10:ARG:HH22	1:C:48:SER:N	2.19	0.40
1:C:109:ILE:HD11	1:C:142:ASN:O	2.21	0.40
1:C:158:VAL:HA	1:C:161:LEU:HB2	2.02	0.40
1:C:170:GLY:O	1:C:225:LEU:HA	2.20	0.40
1:C:245:ASN:HB3	1:C:304:MET:CE	2.51	0.40
1:C:272:ASP:OD1	1:C:273:VAL:N	2.54	0.40
1:C:303:ASP:OD1	1:C:303:ASP:N	2.54	0.40
2:D:160:PHE:HB2	2:D:261:PHE:CZ	2.57	0.40
2:D:210:THR:HG22	2:D:230:ILE:HA	2.03	0.40
2:D:253:PHE:O	2:D:257:VAL:HG13	2.22	0.40
1:Q:184:LEU:HD11	2:P:181:TYR:CD1	2.57	0.40
2:R:87:GLY:CA	2:R:114:GLY:HA3	2.52	0.40
2:R:168:PHE:HA	2:R:250:LYS:HE2	2.03	0.40
2:R:192:HIS:CE1	2:R:197:ARG:HB2	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:101:ASP:CG	1:O:104:GLY:H	2.25	0.40
1:O:169:LYS:C	1:O:244:VAL:HB	2.41	0.40
1:O:176:HIS:O	1:O:232:VAL:HG22	2.22	0.40
2:P:194:ASP:OD1	2:P:196:ARG:HG3	2.22	0.40
1:G:62:GLU:HB2	1:G:72:LYS:CE	2.52	0.40
1:G:127:THR:OG1	1:G:216:LEU:O	2.34	0.40
1:G:134:GLU:HG2	1:G:135:LYS:H	1.86	0.40
1:G:203:ILE:HG22	1:G:230:LEU:HD22	2.04	0.40
1:G:254:ASP:HA	1:G:257:ASN:HD22	1.87	0.40
1:G:311:TYR:HD2	1:G:312:ASP:O	2.05	0.40
2:H:160:PHE:CD2	2:H:161:VAL:HG13	2.56	0.40
2:F:41:ALA:O	2:F:44:LEU:HB2	2.22	0.40
2:F:119:LEU:HD12	2:F:147:ILE:HD11	2.02	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	366/368 (100%)	278 (76%)	85 (23%)	3 (1%)	19	60
1	C	366/368 (100%)	274 (75%)	87 (24%)	5 (1%)	11	46
1	E	366/368 (100%)	279 (76%)	84 (23%)	3 (1%)	19	60
1	G	366/368 (100%)	260 (71%)	100 (27%)	6 (2%)	9	44
1	I	366/368 (100%)	276 (75%)	88 (24%)	2 (0%)	29	69
1	K	366/368 (100%)	287 (78%)	77 (21%)	2 (0%)	29	69
1	O	366/368 (100%)	275 (75%)	87 (24%)	4 (1%)	14	52
1	Q	366/368 (100%)	265 (72%)	98 (27%)	3 (1%)	19	60
2	B	335/337 (99%)	263 (78%)	72 (22%)	0	100	100
2	D	335/337 (99%)	270 (81%)	65 (19%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	F	335/337 (99%)	260 (78%)	74 (22%)	1 (0%)	41	77
2	H	335/337 (99%)	266 (79%)	68 (20%)	1 (0%)	41	77
2	J	335/337 (99%)	261 (78%)	74 (22%)	0	100	100
2	L	335/337 (99%)	274 (82%)	60 (18%)	1 (0%)	41	77
2	P	335/337 (99%)	269 (80%)	65 (19%)	1 (0%)	41	77
2	R	335/337 (99%)	262 (78%)	71 (21%)	2 (1%)	25	66
All	All	5608/5640 (99%)	4319 (77%)	1255 (22%)	34 (1%)	29	66

All (34) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	352	ASN
1	C	344	PRO
1	C	353	PRO
1	Q	352	ASN
1	O	344	PRO
1	O	353	PRO
1	G	344	PRO
1	G	353	PRO
1	E	343	ASP
1	E	344	PRO
2	F	57	ASP
2	R	55	ASP
2	P	55	ASP
1	K	60(A)	ASP
2	L	55	ASP
1	A	344	PRO
1	C	60(A)	ASP
2	R	56	ALA
1	G	61	ASN
1	I	343	ASP
1	Q	61	ASN
1	O	60(A)	ASP
1	O	235	PRO
1	G	60(A)	ASP
1	E	235	PRO
1	C	235	PRO
1	G	343	ASP
1	A	235	PRO
1	Q	235	PRO

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Mol	Chain	Res	Type
1	G	235	PRO
1	I	344	PRO
1	K	235	PRO
2	H	29	VAL
1	C	339	VAL

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	282/304 (93%)	195 (69%)	87 (31%)	0 2
1	C	282/304 (93%)	215 (76%)	67 (24%)	0 4
1	E	282/304 (93%)	208 (74%)	74 (26%)	0 3
1	G	282/304 (93%)	202 (72%)	80 (28%)	0 2
1	I	282/304 (93%)	197 (70%)	85 (30%)	0 2
1	K	282/304 (93%)	217 (77%)	65 (23%)	1 4
1	O	282/304 (93%)	208 (74%)	74 (26%)	0 3
1	Q	282/304 (93%)	212 (75%)	70 (25%)	0 3
2	B	279/279 (100%)	233 (84%)	46 (16%)	2 12
2	D	279/279 (100%)	207 (74%)	72 (26%)	0 3
2	F	279/279 (100%)	221 (79%)	58 (21%)	1 6
2	H	279/279 (100%)	207 (74%)	72 (26%)	0 3
2	J	279/279 (100%)	224 (80%)	55 (20%)	1 8
2	L	279/279 (100%)	209 (75%)	70 (25%)	0 3
2	P	279/279 (100%)	219 (78%)	60 (22%)	1 6
2	R	279/279 (100%)	218 (78%)	61 (22%)	1 5
All	All	4488/4664 (96%)	3392 (76%)	1096 (24%)	2 4

All (1096) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	I	0	LYS
1	I	8	PHE
1	I	10	ARG
1	I	16	LEU
1	I	20	ARG
1	I	21	LYS
1	I	23	SER
1	I	25	LEU
1	I	28	VAL
1	I	38	LYS
1	I	47	ASP
1	I	53	PHE
1	I	54	LYS
1	I	56	ASP
1	I	58	LYS
1	I	59	ILE
1	I	60	ILE
1	I	60(A)	ASP
1	I	62	GLU
1	I	66	ILE
1	I	72	LYS
1	I	74	VAL
1	I	81	LYS
1	I	86	GLU
1	I	90	ASP
1	I	100	VAL
1	I	108	HIS
1	I	110	GLN
1	I	133	ASN
1	I	134	GLU
1	I	136	ASP
1	I	139	HIS
1	I	139(A)	ASP
1	I	143	ILE
1	I	144	ILE
1	I	151	THR
1	I	152	ASN
1	I	158	VAL
1	I	161	LEU
1	I	162	ASP
1	I	165	LEU
1	I	167	ILE
1	I	169	LYS

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Mol	Chain	Res	Type
1	I	172	MET
1	I	176	HIS
1	I	181	ASP
1	I	182	GLN
1	I	183	ARG
1	I	190	HIS
1	I	191	ARG
1	I	192	ASP
1	I	193	LEU
1	I	201	LEU
1	I	202	ASN
1	I	206	THR
1	I	208	THR
1	I	228	ILE
1	I	231	ARG
1	I	234	THR
1	I	241	ASP
1	I	244	VAL
1	I	248(A)	VAL
1	I	253	GLU
1	I	254	ASP
1	I	261	LYS
1	I	268	LYS
1	I	272	ASP
1	I	273	VAL
1	I	282	ASP
1	I	283	PHE
1	I	284	ARG
1	I	287	ASP
1	I	288	PHE
1	I	289	SER
1	I	290	SER
1	I	292	ILE
1	I	299	VAL
1	I	300	MET
1	I	312	ASP
1	I	313	ASN
1	I	319	GLN
1	I	322	VAL
1	I	323	ASP
1	I	327	LEU
1	I	328	VAL

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Mol	Chain	Res	Type
2	J	0	LYS
2	J	13	ARG
2	J	15	PHE
2	J	32	ILE
2	J	35	THR
2	J	39	LYS
2	J	44	LEU
2	J	48	ASP
2	J	51	LEU
2	J	69	ASP
2	J	78	ASP
2	J	86	TRP
2	J	89	MET
2	J	94	VAL
2	J	98	THR
2	J	102	VAL
2	J	105	ASP
2	J	121	THR
2	J	130	THR
2	J	131	TYR
2	J	135	VAL
2	J	136	ASN
2	J	138	GLU
2	J	141	THR
2	J	145	THR
2	J	154	THR
2	J	155	ASN
2	J	162	LYS
2	J	164	LEU
2	J	165	ASP
2	J	168	PHE
2	J	175	MET
2	J	177	THR
2	J	181	TYR
2	J	184	ASP
2	J	185	GLN
2	J	193	ARG
2	J	197	ARG
2	J	208	THR
2	J	210	THR
2	J	236	THR
2	J	242	VAL

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Mol	Chain	Res	Type
2	J	246	VAL
2	J	252	THR
2	J	261	PHE
2	J	269	LEU
2	J	286	ARG
2	J	289	ASP
2	J	295	ASP
2	J	296	SER
2	J	299	THR
2	J	306	MET
2	J	315	ASN
2	J	321	GLN
2	J	335	GLN
1	K	1	LEU
1	K	6	ASN
1	K	10	ARG
1	K	13	ARG
1	K	14	ASN
1	K	16	LEU
1	K	18	CYS
1	K	20	ARG
1	K	38	LYS
1	K	47	ASP
1	K	53	PHE
1	K	58	LYS
1	K	60(A)	ASP
1	K	62	GLU
1	K	74	VAL
1	K	81	LYS
1	K	82	LEU
1	K	84	TRP
1	K	86	GLU
1	K	90	ASP
1	K	100	VAL
1	K	108	HIS
1	K	125	ILE
1	K	136	ASP
1	K	137	TYR
1	K	139	HIS
1	K	139(A)	ASP
1	K	142	ASN
1	K	145	SER

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Mol	Chain	Res	Type
1	K	146	ASN
1	K	151	THR
1	K	169	LYS
1	K	171	THR
1	K	172	MET
1	K	176	HIS
1	K	181	ASP
1	K	182	GLN
1	K	191	ARG
1	K	192	ASP
1	K	193	LEU
1	K	201	LEU
1	K	202	ASN
1	K	217	VAL
1	K	221	LEU
1	K	225	LEU
1	K	228	ILE
1	K	234	THR
1	K	243	VAL
1	K	245	ASN
1	K	248(A)	VAL
1	K	254	ASP
1	K	256	ASN
1	K	282	ASP
1	K	287	ASP
1	K	289	SER
1	K	293	ASP
1	K	300	MET
1	K	304	MET
1	K	312	ASP
1	K	314	GLU
1	K	315	TRP
1	K	319	GLN
1	K	323	ASP
1	K	324	LEU
1	K	326	ASP
2	L	0	LYS
2	L	1	LEU
2	L	2	LYS
2	L	10	ARG
2	L	14	ASN
2	L	15	PHE

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Mol	Chain	Res	Type
2	L	20	HIS
2	L	23	LYS
2	L	27	LEU
2	L	30	VAL
2	L	32	ILE
2	L	39	LYS
2	L	43	HIS
2	L	48	ASP
2	L	54	PHE
2	L	57	ASP
2	L	60	THR
2	L	66	ILE
2	L	71	LYS
2	L	72	VAL
2	L	75	VAL
2	L	76	VAL
2	L	82	VAL
2	L	86	TRP
2	L	88	ASP
2	L	89	MET
2	L	98	THR
2	L	100	VAL
2	L	105	ASP
2	L	119	LEU
2	L	121	THR
2	L	125	LYS
2	L	131	TYR
2	L	136	ASN
2	L	141	THR
2	L	144	ASP
2	L	145	THR
2	L	147	ILE
2	L	154	THR
2	L	155	ASN
2	L	162	LYS
2	L	177	THR
2	L	180	SER
2	L	185	GLN
2	L	193	ARG
2	L	203	LEU
2	L	204	ASN
2	L	205	ILE

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Mol	Chain	Res	Type
2	L	208	THR
2	L	214	LYS
2	L	222	ASN
2	L	226	LYS
2	L	243	ASP
2	L	244	LEU
2	L	246	VAL
2	L	252	THR
2	L	253	PHE
2	L	257	VAL
2	L	261	PHE
2	L	263	GLU
2	L	268	GLU
2	L	283	ILE
2	L	284	ASP
2	L	289	ASP
2	L	290	VAL
2	L	293	THR
2	L	310	ILE
2	L	315	ASN
2	L	317	TRP
2	L	332	ASN
1	A	0	LYS
1	A	2	LYS
1	A	8	PHE
1	A	11	ILE
1	A	14	ASN
1	A	16	LEU
1	A	17	ARG
1	A	20	ARG
1	A	21	LYS
1	A	25	LEU
1	A	32	ASP
1	A	38	LYS
1	A	47	ASP
1	A	49	ILE
1	A	53	PHE
1	A	54	LYS
1	A	56	ASP
1	A	58	LYS
1	A	59	ILE
1	A	60	ILE

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Mol	Chain	Res	Type
1	A	60(A)	ASP
1	A	62	GLU
1	A	66	ILE
1	A	72	LYS
1	A	74	VAL
1	A	77	ARG
1	A	81	LYS
1	A	90	ASP
1	A	96	THR
1	A	100	VAL
1	A	108	HIS
1	A	110	GLN
1	A	114	LYS
1	A	127	THR
1	A	134	GLU
1	A	136	ASP
1	A	139	HIS
1	A	139(A)	ASP
1	A	144	ILE
1	A	152	ASN
1	A	158	VAL
1	A	161	LEU
1	A	165	LEU
1	A	167	ILE
1	A	169	LYS
1	A	172	MET
1	A	176	HIS
1	A	182	GLN
1	A	183	ARG
1	A	191	ARG
1	A	193	LEU
1	A	201	LEU
1	A	202	ASN
1	A	206	THR
1	A	208	THR
1	A	216	LEU
1	A	217	VAL
1	A	228	ILE
1	A	231	ARG
1	A	234	THR
1	A	239	VAL
1	A	243	VAL

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Mol	Chain	Res	Type
1	A	244	VAL
1	A	248(A)	VAL
1	A	253	GLU
1	A	254	ASP
1	A	261	LYS
1	A	268	LYS
1	A	272	ASP
1	A	273	VAL
1	A	279	VAL
1	A	280	SER
1	A	282	ASP
1	A	287	ASP
1	A	288	PHE
1	A	290	SER
1	A	292	ILE
1	A	299	VAL
1	A	312	ASP
1	A	313	ASN
1	A	319	GLN
1	A	320	ARG
1	A	322	VAL
1	A	323	ASP
1	A	326	ASP
1	A	327	LEU
1	A	328	VAL
2	B	0	LYS
2	B	32	ILE
2	B	39	LYS
2	B	48	ASP
2	B	59	LYS
2	B	69	ASP
2	B	75	VAL
2	B	78	ASP
2	B	86	TRP
2	B	89	MET
2	B	94	VAL
2	B	98	THR
2	B	105	ASP
2	B	121	THR
2	B	130	THR
2	B	131	TYR
2	B	135	VAL

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Mol	Chain	Res	Type
2	B	136	ASN
2	B	138	GLU
2	B	141	THR
2	B	145	THR
2	B	154	THR
2	B	155	ASN
2	B	162	LYS
2	B	164	LEU
2	B	165	ASP
2	B	168	PHE
2	B	175	MET
2	B	177	THR
2	B	184	ASP
2	B	185	GLN
2	B	193	ARG
2	B	197	ARG
2	B	208	THR
2	B	210	THR
2	B	236	THR
2	B	246	VAL
2	B	252	THR
2	B	261	PHE
2	B	289	ASP
2	B	295	ASP
2	B	296	SER
2	B	299	THR
2	B	306	MET
2	B	315	ASN
2	B	335	GLN
1	C	0	LYS
1	C	13	ARG
1	C	20	ARG
1	C	21	LYS
1	C	38	LYS
1	C	47	ASP
1	C	53	PHE
1	C	56	ASP
1	C	58	LYS
1	C	60(A)	ASP
1	C	67	ASP
1	C	74	VAL
1	C	81	LYS

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Mol	Chain	Res	Type
1	C	82	LEU
1	C	84	TRP
1	C	86	GLU
1	C	90	ASP
1	C	92	VAL
1	C	96	THR
1	C	100	VAL
1	C	101	ASP
1	C	108	HIS
1	C	125	ILE
1	C	136	ASP
1	C	137	TYR
1	C	139	HIS
1	C	139(A)	ASP
1	C	142	ASN
1	C	145	SER
1	C	146	ASN
1	C	169	LYS
1	C	171	THR
1	C	172	MET
1	C	175	THR
1	C	181	ASP
1	C	182	GLN
1	C	191	ARG
1	C	193	LEU
1	C	197	ARG
1	C	201	LEU
1	C	217	VAL
1	C	221	LEU
1	C	222	LYS
1	C	225	LEU
1	C	228	ILE
1	C	231	ARG
1	C	234	THR
1	C	243	VAL
1	C	245	ASN
1	C	248(A)	VAL
1	C	254	ASP
1	C	256	ASN
1	C	274	CYS
1	C	282	ASP
1	C	289	SER

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Mol	Chain	Res	Type
1	C	293	ASP
1	C	300	MET
1	C	304	MET
1	C	312	ASP
1	C	313	ASN
1	C	314	GLU
1	C	319	GLN
1	C	323	ASP
1	C	324	LEU
1	C	326	ASP
1	C	332	TRP
1	C	358	CYS
2	D	0	LYS
2	D	1	LEU
2	D	2	LYS
2	D	10	ARG
2	D	15	PHE
2	D	16	LEU
2	D	20	HIS
2	D	23	LYS
2	D	27	LEU
2	D	32	ILE
2	D	38	VAL
2	D	39	LYS
2	D	43	HIS
2	D	48	ASP
2	D	54	PHE
2	D	55	ASP
2	D	57	ASP
2	D	58	VAL
2	D	63	ASP
2	D	66	ILE
2	D	68	VAL
2	D	82	VAL
2	D	86	TRP
2	D	88	ASP
2	D	89	MET
2	D	98	THR
2	D	100	VAL
2	D	105	ASP
2	D	116	LYS
2	D	121	THR

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Mol	Chain	Res	Type
2	D	125	LYS
2	D	131	TYR
2	D	136	ASN
2	D	141	THR
2	D	144	ASP
2	D	145	THR
2	D	147	ILE
2	D	153	THR
2	D	154	THR
2	D	155	ASN
2	D	162	LYS
2	D	176	THR
2	D	180	SER
2	D	184	ASP
2	D	185	GLN
2	D	193	ARG
2	D	196	ARG
2	D	203	LEU
2	D	204	ASN
2	D	205	ILE
2	D	208	THR
2	D	214	LYS
2	D	222	ASN
2	D	232	LEU
2	D	243	ASP
2	D	244	LEU
2	D	246	VAL
2	D	252	THR
2	D	253	PHE
2	D	257	VAL
2	D	261	PHE
2	D	263	GLU
2	D	268	GLU
2	D	283	ILE
2	D	284	ASP
2	D	289	ASP
2	D	290	VAL
2	D	293	THR
2	D	310	ILE
2	D	315	ASN
2	D	317	TRP
2	D	332	ASN

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Mol	Chain	Res	Type
1	Q	14	ASN
1	Q	18	CYS
1	Q	20	ARG
1	Q	21	LYS
1	Q	25	LEU
1	Q	38	LYS
1	Q	47	ASP
1	Q	50	LEU
1	Q	53	PHE
1	Q	58	LYS
1	Q	60(A)	ASP
1	Q	61	ASN
1	Q	62	GLU
1	Q	63	THR
1	Q	65	SER
1	Q	67	ASP
1	Q	69	LYS
1	Q	74	VAL
1	Q	81	LYS
1	Q	91	ILE
1	Q	92	VAL
1	Q	93	ILE
1	Q	110	GLN
1	Q	114	LYS
1	Q	136	ASP
1	Q	137	TYR
1	Q	144	ILE
1	Q	148	SER
1	Q	152	ASN
1	Q	153	CYS
1	Q	154	LEU
1	Q	158	VAL
1	Q	159	LYS
1	Q	165	LEU
1	Q	169	LYS
1	Q	172	MET
1	Q	176	HIS
1	Q	182	GLN
1	Q	192	ASP
1	Q	201	LEU
1	Q	206	THR
1	Q	208	THR

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Mol	Chain	Res	Type
1	Q	218	LEU
1	Q	221	LEU
1	Q	222	LYS
1	Q	225	LEU
1	Q	228	ILE
1	Q	230	LEU
1	Q	231	ARG
1	Q	234	THR
1	Q	237	VAL
1	Q	239	VAL
1	Q	244	VAL
1	Q	247	GLU
1	Q	248(A)	VAL
1	Q	251	THR
1	Q	254	ASP
1	Q	261	LYS
1	Q	283	PHE
1	Q	287	ASP
1	Q	288	PHE
1	Q	289	SER
1	Q	290	SER
1	Q	291	THR
1	Q	307	VAL
1	Q	308	VAL
1	Q	312	ASP
1	Q	317	TYR
1	Q	322	VAL
1	Q	326	ASP
2	R	0	LYS
2	R	1	LEU
2	R	5	ILE
2	R	10	ARG
2	R	15	PHE
2	R	20	HIS
2	R	22	ARG
2	R	32	ILE
2	R	39	LYS
2	R	48	ASP
2	R	54	PHE
2	R	55	ASP
2	R	57	ASP
2	R	59	LYS

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Mol	Chain	Res	Type
2	R	60	THR
2	R	64	SER
2	R	66	ILE
2	R	67	SER
2	R	68	VAL
2	R	88	ASP
2	R	98	THR
2	R	100	VAL
2	R	103	ASP
2	R	105	ASP
2	R	121	THR
2	R	125	LYS
2	R	135	VAL
2	R	136	ASN
2	R	140	TYR
2	R	147	ILE
2	R	154	THR
2	R	161	VAL
2	R	162	LYS
2	R	179	HIS
2	R	182	THR
2	R	193	ARG
2	R	195	LEU
2	R	196	ARG
2	R	214	LYS
2	R	227	LEU
2	R	236	THR
2	R	238	ASN
2	R	242	VAL
2	R	243	ASP
2	R	244	LEU
2	R	246	VAL
2	R	252	THR
2	R	278	GLU
2	R	284	ASP
2	R	286	ARG
2	R	289	ASP
2	R	290	VAL
2	R	292	SER
2	R	293	THR
2	R	294	ILE
2	R	295	ASP

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Mol	Chain	Res	Type
2	R	299	THR
2	R	309	VAL
2	R	310	ILE
2	R	315	ASN
2	R	332	ASN
1	O	1	LEU
1	O	5	ILE
1	O	8	PHE
1	O	10	ARG
1	O	13	ARG
1	O	16	LEU
1	O	20	ARG
1	O	23	SER
1	O	25	LEU
1	O	28	VAL
1	O	30	VAL
1	O	32	ASP
1	O	38	LYS
1	O	47	ASP
1	O	53	PHE
1	O	60	ILE
1	O	60(A)	ASP
1	O	61	ASN
1	O	73	VAL
1	O	81	LYS
1	O	84	TRP
1	O	86	GLU
1	O	90	ASP
1	O	100	VAL
1	O	108	HIS
1	O	114	LYS
1	O	124	ASP
1	O	133	ASN
1	O	136	ASP
1	O	145	SER
1	O	151	THR
1	O	152	ASN
1	O	153	CYS
1	O	154	LEU
1	O	161	LEU
1	O	169	LYS
1	O	171	THR

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Mol	Chain	Res	Type
1	O	172	MET
1	O	173	THR
1	O	175	THR
1	O	176	HIS
1	O	181	ASP
1	O	182	GLN
1	O	193	LEU
1	O	208	THR
1	O	214	VAL
1	O	217	VAL
1	O	220	GLN
1	O	228	ILE
1	O	230	LEU
1	O	231	ARG
1	O	234	THR
1	O	239	VAL
1	O	243	VAL
1	O	244	VAL
1	O	246	ILE
1	O	248(A)	VAL
1	O	251	THR
1	O	253	GLU
1	O	254	ASP
1	O	255	VAL
1	O	261	LYS
1	O	275	ASP
1	O	279	VAL
1	O	282	ASP
1	O	288	PHE
1	O	289	SER
1	O	312	ASP
1	O	317	TYR
1	O	319	GLN
1	O	322	VAL
1	O	326	ASP
1	O	327	LEU
1	O	349	CYS
2	P	0	LYS
2	P	10	ARG
2	P	13	ARG
2	P	15	PHE
2	P	19	TRP

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Mol	Chain	Res	Type
2	P	20	HIS
2	P	38	VAL
2	P	39	LYS
2	P	48	ASP
2	P	54	PHE
2	P	57	ASP
2	P	59	LYS
2	P	68	VAL
2	P	71	LYS
2	P	73	ILE
2	P	74	LYS
2	P	78	ASP
2	P	86	TRP
2	P	88	ASP
2	P	89	MET
2	P	94	VAL
2	P	98	THR
2	P	102	VAL
2	P	128	ILE
2	P	130	THR
2	P	136	ASN
2	P	138	GLU
2	P	141	THR
2	P	145	THR
2	P	155	ASN
2	P	175	MET
2	P	181	TYR
2	P	182	THR
2	P	185	GLN
2	P	189	ASP
2	P	193	ARG
2	P	196	ARG
2	P	204	ASN
2	P	208	THR
2	P	210	THR
2	P	222	ASN
2	P	226	LYS
2	P	230	ILE
2	P	236	THR
2	P	243	ASP
2	P	252	THR
2	P	257	VAL

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Mol	Chain	Res	Type
2	P	262	ARG
2	P	268	GLU
2	P	284	ASP
2	P	289	ASP
2	P	291	SER
2	P	293	THR
2	P	294	ILE
2	P	296	SER
2	P	300	MET
2	P	301	VAL
2	P	316	GLU
2	P	326	LEU
2	P	335	GLN
1	G	14	ASN
1	G	18	CYS
1	G	20	ARG
1	G	21	LYS
1	G	25	LEU
1	G	38	LYS
1	G	47	ASP
1	G	50	LEU
1	G	53	PHE
1	G	58	LYS
1	G	60(A)	ASP
1	G	61	ASN
1	G	62	GLU
1	G	63	THR
1	G	67	ASP
1	G	69	LYS
1	G	74	VAL
1	G	81	LYS
1	G	86	GLU
1	G	90	ASP
1	G	91	ILE
1	G	93	ILE
1	G	94	GLU
1	G	108	HIS
1	G	110	GLN
1	G	114	LYS
1	G	129	VAL
1	G	136	ASP
1	G	137	TYR

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Mol	Chain	Res	Type
1	G	139	HIS
1	G	144	ILE
1	G	145	SER
1	G	148	SER
1	G	152	ASN
1	G	153	CYS
1	G	154	LEU
1	G	158	VAL
1	G	159	LYS
1	G	163	GLU
1	G	165	LEU
1	G	169	LYS
1	G	172	MET
1	G	182	GLN
1	G	191	ARG
1	G	192	ASP
1	G	193	LEU
1	G	201	LEU
1	G	206	THR
1	G	208	THR
1	G	218	LEU
1	G	221	LEU
1	G	222	LYS
1	G	225	LEU
1	G	228	ILE
1	G	230	LEU
1	G	231	ARG
1	G	234	THR
1	G	237	VAL
1	G	239	VAL
1	G	240	VAL
1	G	243	VAL
1	G	244	VAL
1	G	247	GLU
1	G	248(A)	VAL
1	G	251	THR
1	G	254	ASP
1	G	261	LYS
1	G	272	ASP
1	G	283	PHE
1	G	288	PHE
1	G	289	SER

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Mol	Chain	Res	Type
1	G	307	VAL
1	G	308	VAL
1	G	312	ASP
1	G	317	TYR
1	G	322	VAL
1	G	323	ASP
1	G	326	ASP
1	G	331	LYS
1	G	358	CYS
2	H	0	LYS
2	H	1	LEU
2	H	10	ARG
2	H	13	ARG
2	H	15	PHE
2	H	20	HIS
2	H	29	VAL
2	H	30	VAL
2	H	31	VAL
2	H	32	ILE
2	H	33	ASN
2	H	39	LYS
2	H	40	GLN
2	H	44	LEU
2	H	46	LYS
2	H	47	TYR
2	H	50	ILE
2	H	51	LEU
2	H	53	THR
2	H	55	ASP
2	H	58	VAL
2	H	59	LYS
2	H	60	THR
2	H	68	VAL
2	H	71	LYS
2	H	79	ARG
2	H	86	TRP
2	H	88	ASP
2	H	98	THR
2	H	100	VAL
2	H	103	ASP
2	H	105	ASP
2	H	121	THR

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Mol	Chain	Res	Type
2	H	125	LYS
2	H	135	VAL
2	H	136	ASN
2	H	140	TYR
2	H	141	THR
2	H	147	ILE
2	H	152	CYS
2	H	154	THR
2	H	156	CYS
2	H	161	VAL
2	H	162	LYS
2	H	175	MET
2	H	179	HIS
2	H	193	ARG
2	H	195	LEU
2	H	196	ARG
2	H	214	LYS
2	H	227	LEU
2	H	236	THR
2	H	238	ASN
2	H	242	VAL
2	H	243	ASP
2	H	244	LEU
2	H	246	VAL
2	H	252	THR
2	H	278	GLU
2	H	284	ASP
2	H	286	ARG
2	H	289	ASP
2	H	290	VAL
2	H	292	SER
2	H	293	THR
2	H	294	ILE
2	H	295	ASP
2	H	299	THR
2	H	309	VAL
2	H	310	ILE
2	H	315	ASN
2	H	317	TRP
1	E	10	ARG
1	E	13	ARG
1	E	16	LEU

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Mol	Chain	Res	Type
1	E	20	ARG
1	E	25	LEU
1	E	28	VAL
1	E	29	VAL
1	E	32	ASP
1	E	33	SER
1	E	38	LYS
1	E	47	ASP
1	E	53	PHE
1	E	60	ILE
1	E	60(A)	ASP
1	E	72	LYS
1	E	81	LYS
1	E	82	LEU
1	E	84	TRP
1	E	90	ASP
1	E	100	VAL
1	E	108	HIS
1	E	114	LYS
1	E	115	LYS
1	E	124	ASP
1	E	133	ASN
1	E	136	ASP
1	E	144	ILE
1	E	145	SER
1	E	149	CYS
1	E	151	THR
1	E	152	ASN
1	E	153	CYS
1	E	154	LEU
1	E	169	LYS
1	E	171	THR
1	E	172	MET
1	E	174	THR
1	E	176	HIS
1	E	181	ASP
1	E	182	GLN
1	E	183	ARG
1	E	186	ASP
1	E	191	ARG
1	E	193	LEU
1	E	201	LEU

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Mol	Chain	Res	Type
1	E	206	THR
1	E	208	THR
1	E	214	VAL
1	E	217	VAL
1	E	220	GLN
1	E	228	ILE
1	E	231	ARG
1	E	234	THR
1	E	239	VAL
1	E	241	ASP
1	E	242	LEU
1	E	243	VAL
1	E	248(A)	VAL
1	E	254	ASP
1	E	255	VAL
1	E	261	LYS
1	E	275	ASP
1	E	279	VAL
1	E	282	ASP
1	E	285	CYS
1	E	288	PHE
1	E	289	SER
1	E	312	ASP
1	E	317	TYR
1	E	319	GLN
1	E	320	ARG
1	E	322	VAL
1	E	326	ASP
1	E	327	LEU
2	F	0	LYS
2	F	2	LYS
2	F	10	ARG
2	F	15	PHE
2	F	16	LEU
2	F	20	HIS
2	F	34	ASP
2	F	39	LYS
2	F	48	ASP
2	F	54	PHE
2	F	55	ASP
2	F	58	VAL
2	F	60	THR

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Mol	Chain	Res	Type
2	F	66	ILE
2	F	74	LYS
2	F	78	ASP
2	F	83	ASN
2	F	86	TRP
2	F	88	ASP
2	F	89	MET
2	F	94	VAL
2	F	98	THR
2	F	102	VAL
2	F	128	ILE
2	F	130	THR
2	F	136	ASN
2	F	138	GLU
2	F	141	THR
2	F	145	THR
2	F	155	ASN
2	F	175	MET
2	F	177	THR
2	F	181	TYR
2	F	184	ASP
2	F	185	GLN
2	F	189	ASP
2	F	193	ARG
2	F	196	ARG
2	F	204	ASN
2	F	208	THR
2	F	210	THR
2	F	222	ASN
2	F	226	LYS
2	F	236	THR
2	F	243	ASP
2	F	252	THR
2	F	257	VAL
2	F	262	ARG
2	F	268	GLU
2	F	283	ILE
2	F	284	ASP
2	F	289	ASP
2	F	291	SER
2	F	293	THR
2	F	294	ILE

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Mol	Chain	Res	Type
2	F	296	SER
2	F	315	ASN
2	F	335	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (88) such sidechains are listed below:

Mol	Chain	Res	Type
1	I	18(B)	HIS
1	I	133	ASN
1	I	142	ASN
1	I	152	ASN
1	I	182	GLN
1	I	319	GLN
2	J	14	ASN
2	J	33	ASN
2	J	40	GLN
2	J	43	HIS
2	J	155	ASN
2	J	185	GLN
2	J	204	ASN
2	J	238	ASN
2	J	258	ASN
2	J	321	GLN
1	K	6	ASN
1	K	42	HIS
1	K	108	HIS
1	K	257	ASN
2	L	43	HIS
2	L	136	ASN
2	L	204	ASN
1	A	18(B)	HIS
1	A	142	ASN
1	A	152	ASN
1	A	319	GLN
2	B	33	ASN
2	B	40	GLN
2	B	155	ASN
2	B	185	GLN
2	B	204	ASN
2	B	238	ASN
2	B	258	ASN
2	B	321	GLN

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Mol	Chain	Res	Type
1	C	6	ASN
1	C	257	ASN
2	D	40	GLN
2	D	43	HIS
2	D	136	ASN
2	D	204	ASN
1	Q	6	ASN
1	Q	61	ASN
1	Q	146	ASN
2	R	43	HIS
2	R	83	ASN
2	R	204	ASN
2	R	238	ASN
2	R	258	ASN
1	O	6	ASN
1	O	61	ASN
1	O	133	ASN
1	O	152	ASN
1	O	226	ASN
1	O	257	ASN
1	O	319	GLN
2	P	20	HIS
2	P	33	ASN
2	P	43	HIS
2	P	83	ASN
2	P	204	ASN
2	P	222	ASN
2	P	321	GLN
2	P	332	ASN
1	G	6	ASN
1	G	14	ASN
1	G	61	ASN
1	G	139	HIS
1	G	146	ASN
1	G	176	HIS
1	G	319	GLN
2	H	83	ASN
2	H	179	HIS
2	H	204	ASN
2	H	238	ASN
2	H	258	ASN
1	E	6	ASN

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Mol	Chain	Res	Type
1	E	61	ASN
1	E	133	ASN
1	E	152	ASN
1	E	226	ASN
1	E	257	ASN
1	E	319	GLN
2	F	33	ASN
2	F	43	HIS
2	F	204	ASN
2	F	222	ASN
2	F	321	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

16 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	NAD	D	401	-	42,48,48	3.84	17 (40%)	50,73,73	2.37	9 (18%)
3	NAD	Q	401	-	42,48,48	3.84	18 (42%)	50,73,73	2.46	9 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
3	NAD	R	401	-	42,48,48	3.84	18 (42%)	50,73,73	2.25	7 (14%)
3	NAD	K	402	-	42,48,48	3.82	19 (45%)	50,73,73	2.24	8 (16%)
3	NAD	P	401	-	42,48,48	3.83	18 (42%)	50,73,73	2.22	7 (14%)
3	NAD	F	401	-	42,48,48	3.81	18 (42%)	50,73,73	2.15	7 (14%)
3	NAD	K	401	-	42,48,48	3.82	17 (40%)	50,73,73	2.29	7 (14%)
3	NAD	B	401	-	42,48,48	3.83	19 (45%)	50,73,73	2.32	8 (16%)
3	NAD	O	401	-	42,48,48	3.84	19 (45%)	50,73,73	2.36	7 (14%)
3	NAD	Q	402	-	42,48,48	3.83	19 (45%)	50,73,73	2.13	6 (12%)
3	NAD	C	401	-	42,48,48	3.82	16 (38%)	50,73,73	2.39	8 (16%)
3	NAD	G	401	-	42,48,48	3.85	19 (45%)	50,73,73	2.29	8 (16%)
3	NAD	J	401	-	42,48,48	3.82	17 (40%)	50,73,73	2.32	7 (14%)
3	NAD	A	401	-	42,48,48	3.85	18 (42%)	50,73,73	2.40	10 (20%)
3	NAD	L	401	-	42,48,48	3.84	18 (42%)	50,73,73	2.33	9 (18%)
3	NAD	H	401	-	42,48,48	3.85	17 (40%)	50,73,73	2.35	8 (16%)

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	NAD	D	401	-	-	11/26/62/62	0/5/5/5
3	NAD	Q	401	-	-	16/26/62/62	0/5/5/5
3	NAD	R	401	-	-	17/26/62/62	0/5/5/5
3	NAD	K	402	-	-	9/26/62/62	0/5/5/5
3	NAD	P	401	-	-	8/26/62/62	0/5/5/5
3	NAD	F	401	-	-	11/26/62/62	0/5/5/5
3	NAD	K	401	-	-	11/26/62/62	0/5/5/5
3	NAD	B	401	-	-	11/26/62/62	0/5/5/5
3	NAD	O	401	-	-	12/26/62/62	0/5/5/5
3	NAD	Q	402	-	-	19/26/62/62	0/5/5/5
3	NAD	C	401	-	-	13/26/62/62	0/5/5/5
3	NAD	G	401	-	-	15/26/62/62	0/5/5/5
3	NAD	J	401	-	-	13/26/62/62	0/5/5/5
3	NAD	A	401	-	-	14/26/62/62	0/5/5/5
3	NAD	L	401	-	-	12/26/62/62	0/5/5/5

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	NAD	H	401	-	-	17/26/62/62	0/5/5/5

All (287) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L	401	NAD	O4D-C1D	-10.45	1.26	1.41
3	G	401	NAD	O4D-C1D	-10.36	1.26	1.41
3	D	401	NAD	O4D-C1D	-10.30	1.26	1.41
3	K	402	NAD	O4D-C1D	-10.28	1.26	1.41
3	H	401	NAD	O4D-C1D	-10.24	1.26	1.41
3	O	401	NAD	O4D-C1D	-10.23	1.26	1.41
3	P	401	NAD	O4D-C1D	-10.19	1.26	1.41
3	Q	401	NAD	O4D-C1D	-10.08	1.27	1.41
3	C	401	NAD	O4D-C1D	-10.08	1.27	1.41
3	A	401	NAD	O4D-C1D	-10.04	1.27	1.41
3	K	401	NAD	O4D-C1D	-10.02	1.27	1.41
3	Q	402	NAD	O4D-C1D	-9.99	1.27	1.41
3	B	401	NAD	O4D-C1D	-9.96	1.27	1.41
3	J	401	NAD	O4D-C1D	-9.93	1.27	1.41
3	F	401	NAD	O4D-C1D	-9.91	1.27	1.41
3	R	401	NAD	O4D-C1D	-9.86	1.27	1.41
3	K	402	NAD	C3B-C4B	-9.47	1.28	1.53
3	Q	402	NAD	C3B-C4B	-9.43	1.28	1.53
3	A	401	NAD	C3B-C4B	-9.33	1.29	1.53
3	C	401	NAD	C3B-C4B	-9.33	1.29	1.53
3	G	401	NAD	C3B-C4B	-9.29	1.29	1.53
3	O	401	NAD	C3B-C4B	-9.21	1.29	1.53
3	Q	401	NAD	C3B-C4B	-9.18	1.29	1.53
3	K	401	NAD	C3B-C4B	-9.16	1.29	1.53
3	P	401	NAD	C3B-C4B	-9.14	1.29	1.53
3	F	401	NAD	C3B-C4B	-9.14	1.29	1.53
3	J	401	NAD	C3B-C4B	-9.05	1.29	1.53
3	R	401	NAD	C3B-C4B	-9.04	1.29	1.53
3	B	401	NAD	C3B-C4B	-8.98	1.30	1.53
3	H	401	NAD	C3B-C4B	-8.96	1.30	1.53
3	D	401	NAD	C3B-C4B	-8.96	1.30	1.53
3	L	401	NAD	C3B-C4B	-8.92	1.30	1.53
3	Q	402	NAD	C3D-C4D	-8.63	1.30	1.53
3	B	401	NAD	C3D-C4D	-8.63	1.30	1.53
3	F	401	NAD	C3D-C4D	-8.62	1.31	1.53
3	D	401	NAD	C3D-C4D	-8.60	1.31	1.53
3	J	401	NAD	C3D-C4D	-8.58	1.31	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L	401	NAD	C3D-C4D	-8.57	1.31	1.53
3	R	401	NAD	C3D-C4D	-8.48	1.31	1.53
3	P	401	NAD	C3D-C4D	-8.48	1.31	1.53
3	A	401	NAD	C3D-C4D	-8.46	1.31	1.53
3	Q	401	NAD	C7N-N7N	8.46	1.49	1.33
3	J	401	NAD	C7N-N7N	8.46	1.49	1.33
3	C	401	NAD	C7N-N7N	8.45	1.49	1.33
3	G	401	NAD	C7N-N7N	8.44	1.49	1.33
3	A	401	NAD	C7N-N7N	8.44	1.49	1.33
3	Q	401	NAD	C3D-C4D	-8.43	1.31	1.53
3	K	401	NAD	C7N-N7N	8.43	1.49	1.33
3	H	401	NAD	C3D-C4D	-8.42	1.31	1.53
3	R	401	NAD	C7N-N7N	8.42	1.49	1.33
3	H	401	NAD	C7N-N7N	8.40	1.49	1.33
3	B	401	NAD	C7N-N7N	8.40	1.49	1.33
3	D	401	NAD	C7N-N7N	8.39	1.49	1.33
3	L	401	NAD	C7N-N7N	8.39	1.49	1.33
3	F	401	NAD	C7N-N7N	8.38	1.49	1.33
3	Q	402	NAD	C7N-N7N	8.37	1.48	1.33
3	G	401	NAD	C3D-C4D	-8.35	1.31	1.53
3	P	401	NAD	C7N-N7N	8.34	1.48	1.33
3	K	402	NAD	C7N-N7N	8.34	1.48	1.33
3	K	401	NAD	C3D-C4D	-8.31	1.31	1.53
3	O	401	NAD	C7N-N7N	8.30	1.48	1.33
3	O	401	NAD	C3D-C4D	-8.25	1.31	1.53
3	C	401	NAD	C3D-C4D	-8.23	1.32	1.53
3	K	402	NAD	C3D-C4D	-8.12	1.32	1.53
3	O	401	NAD	O4B-C4B	7.64	1.62	1.45
3	O	401	NAD	O4D-C4D	7.58	1.61	1.45
3	K	402	NAD	O4D-C4D	7.55	1.61	1.45
3	A	401	NAD	O4D-C4D	7.55	1.61	1.45
3	G	401	NAD	O4D-C4D	7.52	1.61	1.45
3	L	401	NAD	O4B-C4B	7.52	1.61	1.45
3	Q	401	NAD	O4D-C4D	7.49	1.61	1.45
3	K	401	NAD	O4D-C4D	7.47	1.61	1.45
3	D	401	NAD	O4B-C4B	7.46	1.61	1.45
3	K	402	NAD	O4B-C4B	7.46	1.61	1.45
3	Q	402	NAD	O4B-C4B	7.46	1.61	1.45
3	C	401	NAD	O4D-C4D	7.45	1.61	1.45
3	P	401	NAD	O4D-C4D	7.44	1.61	1.45
3	A	401	NAD	O4B-C4B	7.44	1.61	1.45
3	G	401	NAD	O4B-C4B	7.43	1.61	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	P	401	NAD	O4B-C4B	7.43	1.61	1.45
3	K	401	NAD	O4B-C4B	7.40	1.61	1.45
3	H	401	NAD	O4B-C4B	7.40	1.61	1.45
3	B	401	NAD	O4B-C4B	7.38	1.61	1.45
3	J	401	NAD	O4D-C4D	7.38	1.61	1.45
3	R	401	NAD	O4B-C4B	7.36	1.61	1.45
3	F	401	NAD	O4D-C4D	7.36	1.61	1.45
3	C	401	NAD	O4B-C4B	7.35	1.61	1.45
3	J	401	NAD	O4B-C4B	7.32	1.61	1.45
3	F	401	NAD	O4B-C4B	7.32	1.61	1.45
3	B	401	NAD	O4D-C4D	7.32	1.61	1.45
3	H	401	NAD	O4D-C4D	7.29	1.61	1.45
3	Q	402	NAD	O4D-C4D	7.29	1.61	1.45
3	Q	401	NAD	O4B-C4B	7.27	1.61	1.45
3	R	401	NAD	O4D-C4D	7.23	1.61	1.45
3	D	401	NAD	O4D-C4D	7.22	1.61	1.45
3	Q	401	NAD	O4B-C1B	-7.15	1.31	1.41
3	L	401	NAD	O4D-C4D	7.14	1.61	1.45
3	H	401	NAD	O4B-C1B	-7.05	1.31	1.41
3	K	401	NAD	O4B-C1B	-7.01	1.31	1.41
3	R	401	NAD	O4B-C1B	-6.94	1.31	1.41
3	C	401	NAD	O4B-C1B	-6.85	1.31	1.41
3	J	401	NAD	O4B-C1B	-6.78	1.31	1.41
3	B	401	NAD	O4B-C1B	-6.76	1.31	1.41
3	A	401	NAD	O4B-C1B	-6.74	1.31	1.41
3	O	401	NAD	O4B-C1B	-6.67	1.31	1.41
3	P	401	NAD	O4B-C1B	-6.65	1.31	1.41
3	L	401	NAD	O4B-C1B	-6.62	1.31	1.41
3	F	401	NAD	O4B-C1B	-6.60	1.31	1.41
3	D	401	NAD	O4B-C1B	-6.57	1.31	1.41
3	Q	402	NAD	O4B-C1B	-6.55	1.31	1.41
3	G	401	NAD	O4B-C1B	-6.46	1.32	1.41
3	K	402	NAD	O4B-C1B	-6.35	1.32	1.41
3	R	401	NAD	C3N-C7N	5.07	1.58	1.50
3	H	401	NAD	C3N-C7N	4.88	1.57	1.50
3	O	401	NAD	O3D-C3D	4.54	1.53	1.43
3	G	401	NAD	C3N-C7N	4.53	1.57	1.50
3	D	401	NAD	C3N-C7N	4.52	1.57	1.50
3	K	402	NAD	O3D-C3D	4.52	1.53	1.43
3	K	401	NAD	O3D-C3D	4.48	1.53	1.43
3	B	401	NAD	O3D-C3D	4.48	1.53	1.43
3	L	401	NAD	C3N-C7N	4.46	1.57	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	J	401	NAD	O3D-C3D	4.44	1.53	1.43
3	L	401	NAD	O3D-C3D	4.44	1.53	1.43
3	H	401	NAD	O3D-C3D	4.44	1.53	1.43
3	P	401	NAD	O3D-C3D	4.43	1.53	1.43
3	C	401	NAD	C3N-C7N	4.43	1.57	1.50
3	D	401	NAD	O3D-C3D	4.43	1.53	1.43
3	Q	401	NAD	O3D-C3D	4.42	1.53	1.43
3	B	401	NAD	C3N-C7N	4.41	1.57	1.50
3	A	401	NAD	O3D-C3D	4.40	1.53	1.43
3	R	401	NAD	O3D-C3D	4.39	1.53	1.43
3	C	401	NAD	O3D-C3D	4.38	1.53	1.43
3	J	401	NAD	C3N-C7N	4.38	1.57	1.50
3	Q	402	NAD	O3D-C3D	4.38	1.53	1.43
3	F	401	NAD	O3D-C3D	4.36	1.53	1.43
3	P	401	NAD	C3N-C7N	4.34	1.57	1.50
3	G	401	NAD	O3D-C3D	4.32	1.53	1.43
3	A	401	NAD	C3N-C7N	4.32	1.57	1.50
3	F	401	NAD	C3N-C7N	4.29	1.57	1.50
3	Q	401	NAD	C3N-C7N	4.21	1.56	1.50
3	O	401	NAD	C3N-C7N	4.20	1.56	1.50
3	K	401	NAD	C6A-N6A	4.19	1.49	1.34
3	P	401	NAD	C6A-N6A	4.18	1.49	1.34
3	O	401	NAD	C6A-N6A	4.18	1.49	1.34
3	F	401	NAD	C6A-N6A	4.17	1.49	1.34
3	K	402	NAD	C6A-N6A	4.16	1.49	1.34
3	K	401	NAD	C3N-C7N	4.15	1.56	1.50
3	B	401	NAD	C6A-N6A	4.15	1.49	1.34
3	A	401	NAD	C6A-N6A	4.14	1.49	1.34
3	C	401	NAD	C6A-N6A	4.13	1.49	1.34
3	Q	401	NAD	C6A-N6A	4.13	1.49	1.34
3	J	401	NAD	C6A-N6A	4.11	1.49	1.34
3	R	401	NAD	C6A-N6A	4.10	1.49	1.34
3	G	401	NAD	C6A-N6A	4.10	1.49	1.34
3	H	401	NAD	C6A-N6A	4.09	1.49	1.34
3	K	402	NAD	C3N-C7N	4.08	1.56	1.50
3	Q	402	NAD	C6A-N6A	4.07	1.48	1.34
3	Q	402	NAD	C3N-C7N	4.07	1.56	1.50
3	L	401	NAD	C6A-N6A	4.05	1.48	1.34
3	D	401	NAD	C6A-N6A	4.03	1.48	1.34
3	B	401	NAD	O3B-C3B	3.41	1.51	1.43
3	J	401	NAD	O3B-C3B	3.28	1.50	1.43
3	A	401	NAD	O3B-C3B	3.22	1.50	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	R	401	NAD	O3B-C3B	3.21	1.50	1.43
3	Q	401	NAD	O3B-C3B	3.20	1.50	1.43
3	F	401	NAD	O3B-C3B	3.20	1.50	1.43
3	L	401	NAD	O3B-C3B	3.20	1.50	1.43
3	O	401	NAD	O3B-C3B	3.20	1.50	1.43
3	P	401	NAD	O3B-C3B	3.20	1.50	1.43
3	H	401	NAD	O3B-C3B	3.19	1.50	1.43
3	Q	402	NAD	O3B-C3B	3.17	1.50	1.43
3	D	401	NAD	O3B-C3B	3.15	1.50	1.43
3	G	401	NAD	O3B-C3B	3.15	1.50	1.43
3	C	401	NAD	O3B-C3B	3.13	1.50	1.43
3	K	402	NAD	O3B-C3B	3.12	1.50	1.43
3	K	401	NAD	O3B-C3B	3.12	1.50	1.43
3	D	401	NAD	C2N-N1N	2.87	1.38	1.35
3	K	401	NAD	O2B-C2B	-2.82	1.36	1.43
3	C	401	NAD	O2B-C2B	-2.82	1.36	1.43
3	R	401	NAD	C2N-N1N	2.80	1.38	1.35
3	A	401	NAD	O2B-C2B	-2.80	1.36	1.43
3	K	402	NAD	O2B-C2B	-2.79	1.36	1.43
3	P	401	NAD	O2B-C2B	-2.79	1.36	1.43
3	H	401	NAD	O2B-C2B	-2.79	1.36	1.43
3	L	401	NAD	C2N-N1N	2.78	1.38	1.35
3	Q	401	NAD	C5A-C4A	-2.78	1.33	1.40
3	Q	402	NAD	O2B-C2B	-2.77	1.36	1.43
3	O	401	NAD	O2B-C2B	-2.77	1.36	1.43
3	F	401	NAD	O2B-C2B	-2.77	1.36	1.43
3	R	401	NAD	C5A-C4A	-2.76	1.33	1.40
3	Q	401	NAD	O2B-C2B	-2.75	1.36	1.43
3	C	401	NAD	C5A-C4A	-2.74	1.33	1.40
3	G	401	NAD	O2B-C2B	-2.74	1.36	1.43
3	R	401	NAD	O2B-C2B	-2.73	1.36	1.43
3	J	401	NAD	O2B-C2B	-2.71	1.36	1.43
3	O	401	NAD	C5A-C4A	-2.71	1.33	1.40
3	A	401	NAD	C5A-C4A	-2.70	1.33	1.40
3	L	401	NAD	O2B-C2B	-2.70	1.36	1.43
3	K	401	NAD	C5A-C4A	-2.69	1.33	1.40
3	H	401	NAD	C5A-C4A	-2.69	1.33	1.40
3	J	401	NAD	C5A-C4A	-2.69	1.33	1.40
3	B	401	NAD	O2B-C2B	-2.69	1.36	1.43
3	K	402	NAD	C5A-C4A	-2.68	1.33	1.40
3	D	401	NAD	O2B-C2B	-2.68	1.36	1.43
3	Q	402	NAD	C5A-C4A	-2.68	1.33	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	H	401	NAD	C2N-N1N	2.67	1.38	1.35
3	G	401	NAD	C5A-C4A	-2.66	1.33	1.40
3	B	401	NAD	C5A-C4A	-2.65	1.33	1.40
3	P	401	NAD	C5A-C4A	-2.63	1.34	1.40
3	D	401	NAD	C5A-C4A	-2.62	1.34	1.40
3	J	401	NAD	C2A-N1A	2.59	1.38	1.33
3	F	401	NAD	C5A-C4A	-2.59	1.34	1.40
3	B	401	NAD	C2A-N1A	2.59	1.38	1.33
3	G	401	NAD	C2N-N1N	2.56	1.38	1.35
3	L	401	NAD	C5A-C4A	-2.55	1.34	1.40
3	F	401	NAD	O7N-C7N	-2.55	1.19	1.24
3	P	401	NAD	O7N-C7N	-2.53	1.19	1.24
3	K	401	NAD	C2A-N1A	2.51	1.38	1.33
3	A	401	NAD	C2A-N1A	2.50	1.38	1.33
3	O	401	NAD	O7N-C7N	-2.50	1.19	1.24
3	Q	402	NAD	C2A-N1A	2.50	1.38	1.33
3	B	401	NAD	C2N-N1N	2.49	1.38	1.35
3	P	401	NAD	C2A-N1A	2.49	1.38	1.33
3	H	401	NAD	O7N-C7N	-2.48	1.19	1.24
3	Q	402	NAD	O7N-C7N	-2.48	1.19	1.24
3	R	401	NAD	C2A-N1A	2.48	1.38	1.33
3	K	401	NAD	O7N-C7N	-2.48	1.19	1.24
3	G	401	NAD	C2A-N1A	2.47	1.38	1.33
3	K	402	NAD	O7N-C7N	-2.46	1.19	1.24
3	K	402	NAD	C2A-N1A	2.45	1.38	1.33
3	B	401	NAD	O7N-C7N	-2.45	1.19	1.24
3	D	401	NAD	C2D-C1D	2.45	1.57	1.53
3	C	401	NAD	C2A-N1A	2.44	1.38	1.33
3	Q	401	NAD	O7N-C7N	-2.43	1.19	1.24
3	Q	401	NAD	C2A-N1A	2.42	1.38	1.33
3	G	401	NAD	O7N-C7N	-2.42	1.19	1.24
3	F	401	NAD	C2A-N1A	2.42	1.38	1.33
3	O	401	NAD	C2A-N1A	2.41	1.38	1.33
3	J	401	NAD	O7N-C7N	-2.41	1.19	1.24
3	C	401	NAD	O7N-C7N	-2.39	1.19	1.24
3	L	401	NAD	C2D-C1D	2.38	1.57	1.53
3	R	401	NAD	O7N-C7N	-2.38	1.19	1.24
3	D	401	NAD	O7N-C7N	-2.36	1.19	1.24
3	L	401	NAD	O7N-C7N	-2.35	1.19	1.24
3	A	401	NAD	C2N-N1N	2.33	1.37	1.35
3	Q	401	NAD	C2N-N1N	2.32	1.37	1.35
3	A	401	NAD	O7N-C7N	-2.31	1.19	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	J	401	NAD	C2N-N1N	2.31	1.37	1.35
3	H	401	NAD	C2A-N1A	2.31	1.38	1.33
3	P	401	NAD	C2A-N3A	2.23	1.35	1.32
3	L	401	NAD	C2A-N1A	2.21	1.38	1.33
3	Q	401	NAD	C2D-C1D	2.21	1.57	1.53
3	Q	402	NAD	C2A-N3A	2.19	1.35	1.32
3	K	402	NAD	C2N-N1N	2.18	1.37	1.35
3	K	402	NAD	C2A-N3A	2.17	1.35	1.32
3	F	401	NAD	PA-O5B	2.15	1.68	1.59
3	O	401	NAD	C2N-N1N	2.15	1.37	1.35
3	A	401	NAD	C2A-N3A	2.15	1.35	1.32
3	F	401	NAD	C2A-N3A	2.14	1.35	1.32
3	K	402	NAD	C2D-C1D	2.12	1.57	1.53
3	D	401	NAD	C2A-N1A	2.12	1.37	1.33
3	Q	402	NAD	PA-O5B	2.12	1.67	1.59
3	Q	402	NAD	C2N-N1N	2.11	1.37	1.35
3	Q	402	NAD	O2D-C2D	-2.11	1.38	1.43
3	O	401	NAD	C2D-C1D	2.11	1.57	1.53
3	K	401	NAD	PA-O5B	2.11	1.67	1.59
3	G	401	NAD	O2D-C2D	-2.10	1.38	1.43
3	G	401	NAD	PA-O5B	2.10	1.67	1.59
3	C	401	NAD	C2D-C1D	2.09	1.56	1.53
3	O	401	NAD	C2A-N3A	2.08	1.35	1.32
3	Q	401	NAD	O2D-C2D	-2.08	1.38	1.43
3	L	401	NAD	PA-O5B	2.06	1.67	1.59
3	K	402	NAD	PA-O5B	2.06	1.67	1.59
3	P	401	NAD	PA-O5B	2.06	1.67	1.59
3	F	401	NAD	C2N-N1N	2.06	1.37	1.35
3	B	401	NAD	C2D-C1D	2.06	1.56	1.53
3	H	401	NAD	C2D-C1D	2.05	1.56	1.53
3	B	401	NAD	C2A-N3A	2.04	1.35	1.32
3	O	401	NAD	PA-O5B	2.04	1.67	1.59
3	A	401	NAD	PA-O5B	2.04	1.67	1.59
3	R	401	NAD	C2D-C1D	2.03	1.56	1.53
3	G	401	NAD	C2A-N3A	2.03	1.35	1.32
3	J	401	NAD	C2A-N3A	2.02	1.35	1.32
3	R	401	NAD	PA-O5B	2.01	1.67	1.59
3	B	401	NAD	PA-O5B	2.01	1.67	1.59
3	P	401	NAD	C2N-N1N	2.01	1.37	1.35
3	K	401	NAD	O2D-C2D	-2.00	1.38	1.43

All (125) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	Q	401	NAD	C1B-N9A-C4A	-10.17	108.78	126.64
3	J	401	NAD	C1B-N9A-C4A	-10.00	109.07	126.64
3	B	401	NAD	C1B-N9A-C4A	-9.88	109.29	126.64
3	R	401	NAD	C1B-N9A-C4A	-9.84	109.34	126.64
3	C	401	NAD	C1B-N9A-C4A	-9.84	109.36	126.64
3	H	401	NAD	C1B-N9A-C4A	-9.67	109.65	126.64
3	O	401	NAD	C1B-N9A-C4A	-9.43	110.08	126.64
3	A	401	NAD	C1B-N9A-C4A	-9.39	110.15	126.64
3	G	401	NAD	C1B-N9A-C4A	-9.19	110.49	126.64
3	K	401	NAD	C1B-N9A-C4A	-9.10	110.65	126.64
3	K	402	NAD	C1B-N9A-C4A	-9.00	110.83	126.64
3	L	401	NAD	C1B-N9A-C4A	-8.98	110.86	126.64
3	D	401	NAD	C1B-N9A-C4A	-8.90	111.01	126.64
3	P	401	NAD	C1B-N9A-C4A	-8.85	111.10	126.64
3	D	401	NAD	C5A-C6A-N6A	8.59	133.41	120.35
3	Q	402	NAD	C1B-N9A-C4A	-8.52	111.68	126.64
3	L	401	NAD	C5A-C6A-N6A	8.42	133.15	120.35
3	H	401	NAD	C5A-C6A-N6A	8.19	132.80	120.35
3	K	401	NAD	C5A-C6A-N6A	8.18	132.78	120.35
3	Q	401	NAD	C5A-C6A-N6A	8.14	132.72	120.35
3	F	401	NAD	C5A-C6A-N6A	8.12	132.69	120.35
3	C	401	NAD	C5A-C6A-N6A	8.10	132.65	120.35
3	F	401	NAD	C1B-N9A-C4A	-8.08	112.45	126.64
3	O	401	NAD	C5A-C6A-N6A	8.04	132.56	120.35
3	P	401	NAD	C5A-C6A-N6A	7.96	132.45	120.35
3	K	402	NAD	C5A-C6A-N6A	7.89	132.35	120.35
3	A	401	NAD	C5A-C6A-N6A	7.76	132.15	120.35
3	J	401	NAD	C5A-C6A-N6A	7.71	132.07	120.35
3	B	401	NAD	C5A-C6A-N6A	7.69	132.04	120.35
3	G	401	NAD	C5A-C6A-N6A	7.67	132.01	120.35
3	Q	402	NAD	C5A-C6A-N6A	7.56	131.84	120.35
3	R	401	NAD	C5A-C6A-N6A	7.50	131.75	120.35
3	D	401	NAD	N6A-C6A-N1A	-6.00	106.11	118.57
3	L	401	NAD	N6A-C6A-N1A	-5.83	106.47	118.57
3	A	401	NAD	N3A-C2A-N1A	-5.83	119.57	128.68
3	B	401	NAD	N3A-C2A-N1A	-5.75	119.69	128.68
3	J	401	NAD	N3A-C2A-N1A	-5.73	119.73	128.68
3	Q	401	NAD	N3A-C2A-N1A	-5.70	119.77	128.68
3	O	401	NAD	N3A-C2A-N1A	-5.66	119.84	128.68
3	C	401	NAD	N3A-C2A-N1A	-5.63	119.88	128.68
3	F	401	NAD	N3A-C2A-N1A	-5.63	119.88	128.68
3	H	401	NAD	N6A-C6A-N1A	-5.60	106.95	118.57
3	Q	402	NAD	N3A-C2A-N1A	-5.60	119.93	128.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	P	401	NAD	N3A-C2A-N1A	-5.58	119.95	128.68
3	F	401	NAD	N6A-C6A-N1A	-5.57	107.01	118.57
3	G	401	NAD	N3A-C2A-N1A	-5.55	120.01	128.68
3	D	401	NAD	N3A-C2A-N1A	-5.53	120.04	128.68
3	R	401	NAD	N3A-C2A-N1A	-5.50	120.08	128.68
3	Q	401	NAD	N6A-C6A-N1A	-5.48	107.21	118.57
3	P	401	NAD	N6A-C6A-N1A	-5.42	107.33	118.57
3	C	401	NAD	N6A-C6A-N1A	-5.41	107.34	118.57
3	K	402	NAD	N3A-C2A-N1A	-5.39	120.25	128.68
3	O	401	NAD	N6A-C6A-N1A	-5.38	107.41	118.57
3	H	401	NAD	N3A-C2A-N1A	-5.36	120.31	128.68
3	K	402	NAD	N6A-C6A-N1A	-5.31	107.55	118.57
3	K	401	NAD	N6A-C6A-N1A	-5.30	107.58	118.57
3	A	401	NAD	N6A-C6A-N1A	-5.24	107.69	118.57
3	L	401	NAD	N3A-C2A-N1A	-5.24	120.49	128.68
3	J	401	NAD	N6A-C6A-N1A	-5.14	107.91	118.57
3	B	401	NAD	N6A-C6A-N1A	-5.12	107.94	118.57
3	Q	402	NAD	N6A-C6A-N1A	-5.04	108.10	118.57
3	K	401	NAD	N3A-C2A-N1A	-5.03	120.82	128.68
3	R	401	NAD	N6A-C6A-N1A	-5.03	108.14	118.57
3	G	401	NAD	N6A-C6A-N1A	-5.03	108.14	118.57
3	G	401	NAD	O4D-C1D-C2D	-4.05	101.01	106.93
3	K	401	NAD	PN-O3-PA	-3.91	119.41	132.83
3	Q	401	NAD	PN-O3-PA	-3.79	119.81	132.83
3	C	401	NAD	C3D-C2D-C1D	3.50	106.25	100.98
3	A	401	NAD	C3D-C2D-C1D	3.46	106.19	100.98
3	B	401	NAD	C3B-C2B-C1B	3.20	105.79	100.98
3	J	401	NAD	C3B-C2B-C1B	3.19	105.77	100.98
3	O	401	NAD	PN-O3-PA	-3.12	122.11	132.83
3	C	401	NAD	PN-O3-PA	-3.08	122.25	132.83
3	K	402	NAD	PN-O3-PA	-3.07	122.29	132.83
3	G	401	NAD	PN-O3-PA	-2.95	122.70	132.83
3	D	401	NAD	PN-O3-PA	-2.92	122.80	132.83
3	Q	401	NAD	C3D-C2D-C1D	2.88	105.32	100.98
3	Q	402	NAD	PN-O3-PA	-2.87	122.97	132.83
3	G	401	NAD	C3D-C2D-C1D	-2.86	96.67	100.98
3	O	401	NAD	C3D-C2D-C1D	2.83	105.25	100.98
3	B	401	NAD	PN-O3-PA	-2.77	123.31	132.83
3	J	401	NAD	PN-O3-PA	-2.75	123.40	132.83
3	H	401	NAD	C3D-C2D-C1D	2.73	105.08	100.98
3	C	401	NAD	C2D-C3D-C4D	2.71	107.92	102.64
3	H	401	NAD	O4B-C1B-C2B	-2.70	102.98	106.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A	401	NAD	C6N-N1N-C2N	-2.69	119.52	121.97
3	K	401	NAD	C3D-C2D-C1D	2.68	105.01	100.98
3	Q	402	NAD	C2N-C3N-C4N	2.66	121.28	118.26
3	F	401	NAD	C3B-C2B-C1B	2.59	104.87	100.98
3	D	401	NAD	O4B-C1B-C2B	-2.58	103.15	106.93
3	P	401	NAD	C3D-C2D-C1D	2.49	104.73	100.98
3	Q	401	NAD	C2N-C3N-C4N	2.48	121.07	118.26
3	L	401	NAD	C3D-C2D-C1D	2.45	104.67	100.98
3	L	401	NAD	PN-O3-PA	-2.43	124.50	132.83
3	D	401	NAD	C3D-C2D-C1D	2.41	104.61	100.98
3	O	401	NAD	C2N-C3N-C4N	2.40	120.98	118.26
3	B	401	NAD	C2N-C3N-C4N	2.39	120.97	118.26
3	K	402	NAD	C3D-C2D-C1D	2.37	104.54	100.98
3	A	401	NAD	PN-O3-PA	-2.31	124.91	132.83
3	J	401	NAD	C2N-C3N-C4N	2.28	120.84	118.26
3	K	402	NAD	C2N-C3N-C4N	2.28	120.84	118.26
3	R	401	NAD	O7N-C7N-N7N	-2.27	119.36	122.58
3	R	401	NAD	PN-O3-PA	-2.27	125.05	132.83
3	C	401	NAD	C6N-N1N-C2N	-2.25	119.92	121.97
3	P	401	NAD	C3B-C2B-C1B	2.24	104.35	100.98
3	K	402	NAD	C3B-C2B-C1B	2.24	104.35	100.98
3	A	401	NAD	C2D-C3D-C4D	2.23	106.98	102.64
3	G	401	NAD	C2N-C3N-C4N	2.22	120.77	118.26
3	P	401	NAD	O4B-C1B-C2B	-2.21	103.70	106.93
3	F	401	NAD	O4B-C1B-C2B	-2.20	103.71	106.93
3	Q	401	NAD	C3B-C2B-C1B	2.19	104.27	100.98
3	R	401	NAD	C3N-C7N-N7N	2.14	120.32	117.75
3	D	401	NAD	C2N-C3N-C4N	2.14	120.68	118.26
3	F	401	NAD	C2N-C3N-C4N	2.13	120.68	118.26
3	A	401	NAD	C3B-C2B-C1B	2.13	104.19	100.98
3	D	401	NAD	C6N-N1N-C2N	-2.09	120.07	121.97
3	B	401	NAD	C2B-C3B-C4B	2.09	106.69	102.64
3	H	401	NAD	C2D-C3D-C4D	2.07	106.67	102.64
3	Q	401	NAD	C2D-C3D-C4D	2.06	106.64	102.64
3	K	401	NAD	C2N-C3N-C4N	2.06	120.59	118.26
3	H	401	NAD	O7N-C7N-N7N	-2.05	119.67	122.58
3	L	401	NAD	C3B-C2B-C1B	2.04	104.05	100.98
3	L	401	NAD	C2N-C3N-C4N	2.03	120.56	118.26
3	L	401	NAD	C2B-C3B-C4B	2.02	106.58	102.64
3	A	401	NAD	O4D-C1D-C2D	-2.01	103.99	106.93

There are no chirality outliers.

All (209) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	J	401	NAD	C5B-O5B-PA-O1A
3	J	401	NAD	C5B-O5B-PA-O2A
3	J	401	NAD	C5B-O5B-PA-O3
3	J	401	NAD	PN-O3-PA-O5B
3	J	401	NAD	C5D-O5D-PN-O3
3	J	401	NAD	C5D-O5D-PN-O2N
3	J	401	NAD	C4D-C5D-O5D-PN
3	K	401	NAD	C5B-O5B-PA-O3
3	K	401	NAD	C4B-C5B-O5B-PA
3	K	401	NAD	C3B-C4B-C5B-O5B
3	K	401	NAD	C5D-O5D-PN-O1N
3	K	401	NAD	O4D-C4D-C5D-O5D
3	K	401	NAD	C3D-C4D-C5D-O5D
3	K	402	NAD	PN-O3-PA-O5B
3	K	402	NAD	C2D-C1D-N1N-C2N
3	K	402	NAD	C2D-C1D-N1N-C6N
3	L	401	NAD	C3B-C4B-C5B-O5B
3	L	401	NAD	C5D-O5D-PN-O3
3	L	401	NAD	C3D-C4D-C5D-O5D
3	L	401	NAD	C2D-C1D-N1N-C2N
3	L	401	NAD	C2D-C1D-N1N-C6N
3	A	401	NAD	C3B-C4B-C5B-O5B
3	A	401	NAD	C5D-O5D-PN-O1N
3	A	401	NAD	C5D-O5D-PN-O2N
3	A	401	NAD	O4D-C4D-C5D-O5D
3	A	401	NAD	O4D-C1D-N1N-C2N
3	A	401	NAD	O4D-C1D-N1N-C6N
3	A	401	NAD	C2D-C1D-N1N-C6N
3	B	401	NAD	C5B-O5B-PA-O2A
3	B	401	NAD	C5B-O5B-PA-O3
3	B	401	NAD	O4B-C4B-C5B-O5B
3	B	401	NAD	C5D-O5D-PN-O3
3	B	401	NAD	C5D-O5D-PN-O2N
3	B	401	NAD	C4D-C5D-O5D-PN
3	C	401	NAD	O4B-C4B-C5B-O5B
3	C	401	NAD	C3B-C4B-C5B-O5B
3	C	401	NAD	O4D-C1D-N1N-C2N
3	C	401	NAD	O4D-C1D-N1N-C6N
3	D	401	NAD	C3B-C4B-C5B-O5B
3	D	401	NAD	C5D-O5D-PN-O3
3	D	401	NAD	C2D-C1D-N1N-C2N
3	D	401	NAD	C2D-C1D-N1N-C6N

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Mol	Chain	Res	Type	Atoms
3	Q	401	NAD	PN-O3-PA-O5B
3	Q	401	NAD	O4B-C4B-C5B-O5B
3	Q	401	NAD	C3B-C4B-C5B-O5B
3	Q	401	NAD	C5D-O5D-PN-O2N
3	Q	401	NAD	C2D-C1D-N1N-C2N
3	Q	401	NAD	C2D-C1D-N1N-C6N
3	Q	402	NAD	C5B-O5B-PA-O3
3	Q	402	NAD	PN-O3-PA-O5B
3	Q	402	NAD	C4B-C5B-O5B-PA
3	Q	402	NAD	C5D-O5D-PN-O1N
3	Q	402	NAD	C5D-O5D-PN-O2N
3	Q	402	NAD	O4D-C4D-C5D-O5D
3	Q	402	NAD	O4D-C1D-N1N-C2N
3	Q	402	NAD	O4D-C1D-N1N-C6N
3	Q	402	NAD	C2D-C1D-N1N-C2N
3	Q	402	NAD	C2D-C1D-N1N-C6N
3	R	401	NAD	C5B-O5B-PA-O3
3	R	401	NAD	C4D-C5D-O5D-PN
3	R	401	NAD	C2D-C1D-N1N-C2N
3	R	401	NAD	C2D-C1D-N1N-C6N
3	O	401	NAD	C5B-O5B-PA-O3
3	O	401	NAD	PN-O3-PA-O5B
3	O	401	NAD	C5D-O5D-PN-O3
3	O	401	NAD	C2D-C1D-N1N-C2N
3	O	401	NAD	C2D-C1D-N1N-C6N
3	P	401	NAD	C4B-C5B-O5B-PA
3	P	401	NAD	C3B-C4B-C5B-O5B
3	G	401	NAD	PN-O3-PA-O5B
3	G	401	NAD	C3B-C4B-C5B-O5B
3	G	401	NAD	O4D-C1D-N1N-C2N
3	G	401	NAD	O4D-C1D-N1N-C6N
3	G	401	NAD	C2D-C1D-N1N-C2N
3	G	401	NAD	C2D-C1D-N1N-C6N
3	H	401	NAD	C5B-O5B-PA-O3
3	H	401	NAD	O4B-C4B-C5B-O5B
3	H	401	NAD	C4D-C5D-O5D-PN
3	H	401	NAD	C2D-C1D-N1N-C2N
3	H	401	NAD	C2D-C1D-N1N-C6N
3	H	401	NAD	C2N-C3N-C7N-O7N
3	H	401	NAD	C2N-C3N-C7N-N7N
3	F	401	NAD	C5B-O5B-PA-O1A
3	F	401	NAD	C4B-C5B-O5B-PA

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Mol	Chain	Res	Type	Atoms
3	F	401	NAD	C5D-O5D-PN-O3
3	F	401	NAD	C5D-O5D-PN-O1N
3	F	401	NAD	C5D-O5D-PN-O2N
3	F	401	NAD	C4D-C5D-O5D-PN
3	H	401	NAD	C4N-C3N-C7N-O7N
3	H	401	NAD	C4N-C3N-C7N-N7N
3	J	401	NAD	O4B-C4B-C5B-O5B
3	J	401	NAD	C3B-C4B-C5B-O5B
3	K	402	NAD	O4B-C4B-C5B-O5B
3	K	402	NAD	C3B-C4B-C5B-O5B
3	A	401	NAD	O4B-C4B-C5B-O5B
3	A	401	NAD	C3D-C4D-C5D-O5D
3	B	401	NAD	C3B-C4B-C5B-O5B
3	Q	402	NAD	C3B-C4B-C5B-O5B
3	R	401	NAD	O4B-C4B-C5B-O5B
3	O	401	NAD	O4B-C4B-C5B-O5B
3	O	401	NAD	C3B-C4B-C5B-O5B
3	G	401	NAD	C3D-C4D-C5D-O5D
3	Q	401	NAD	C4B-C5B-O5B-PA
3	R	401	NAD	C2N-C3N-C7N-O7N
3	R	401	NAD	C2N-C3N-C7N-N7N
3	K	401	NAD	O4B-C4B-C5B-O5B
3	L	401	NAD	O4B-C4B-C5B-O5B
3	L	401	NAD	O4D-C4D-C5D-O5D
3	D	401	NAD	O4B-C4B-C5B-O5B
3	Q	402	NAD	C3D-C4D-C5D-O5D
3	P	401	NAD	O4B-C4B-C5B-O5B
3	G	401	NAD	O4B-C4B-C5B-O5B
3	G	401	NAD	O4D-C4D-C5D-O5D
3	H	401	NAD	C3B-C4B-C5B-O5B
3	G	401	NAD	C4B-C5B-O5B-PA
3	R	401	NAD	C4N-C3N-C7N-O7N
3	R	401	NAD	C4N-C3N-C7N-N7N
3	R	401	NAD	C3B-C4B-C5B-O5B
3	Q	401	NAD	C4N-C3N-C7N-N7N
3	C	401	NAD	O4D-C4D-C5D-O5D
3	Q	401	NAD	O4D-C4D-C5D-O5D
3	Q	402	NAD	O4B-C4B-C5B-O5B
3	B	401	NAD	C4B-C5B-O5B-PA
3	C	401	NAD	C4B-C5B-O5B-PA
3	Q	401	NAD	C4N-C3N-C7N-O7N
3	Q	401	NAD	C2N-C3N-C7N-N7N

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Mol	Chain	Res	Type	Atoms
3	Q	401	NAD	C2N-C3N-C7N-O7N
3	C	401	NAD	PN-O3-PA-O1A
3	Q	402	NAD	PA-O3-PN-O1N
3	R	401	NAD	PN-O3-PA-O1A
3	D	401	NAD	C3D-C4D-C5D-O5D
3	J	401	NAD	C4B-C5B-O5B-PA
3	L	401	NAD	C4D-C5D-O5D-PN
3	Q	402	NAD	C4D-C5D-O5D-PN
3	O	401	NAD	C4B-C5B-O5B-PA
3	A	401	NAD	C4B-C5B-O5B-PA
3	D	401	NAD	C4D-C5D-O5D-PN
3	O	401	NAD	C4D-C5D-O5D-PN
3	K	401	NAD	PN-O3-PA-O5B
3	A	401	NAD	PN-O3-PA-O5B
3	B	401	NAD	PN-O3-PA-O5B
3	C	401	NAD	PN-O3-PA-O5B
3	Q	401	NAD	PA-O3-PN-O5D
3	R	401	NAD	PN-O3-PA-O5B
3	P	401	NAD	PN-O3-PA-O5B
3	P	401	NAD	PA-O3-PN-O5D
3	H	401	NAD	PN-O3-PA-O5B
3	F	401	NAD	PN-O3-PA-O5B
3	C	401	NAD	C3D-C4D-C5D-O5D
3	Q	401	NAD	C3D-C4D-C5D-O5D
3	K	402	NAD	C4B-C5B-O5B-PA
3	K	401	NAD	C5D-O5D-PN-O3
3	A	401	NAD	C5D-O5D-PN-O3
3	Q	401	NAD	C5D-O5D-PN-O3
3	Q	402	NAD	C5D-O5D-PN-O3
3	G	401	NAD	C5D-O5D-PN-O3
3	D	401	NAD	O4D-C4D-C5D-O5D
3	H	401	NAD	PN-O3-PA-O1A
3	R	401	NAD	C4B-C5B-O5B-PA
3	H	401	NAD	C4B-C5B-O5B-PA
3	J	401	NAD	C5D-O5D-PN-O1N
3	K	401	NAD	C5B-O5B-PA-O2A
3	L	401	NAD	C5D-O5D-PN-O1N
3	L	401	NAD	C5D-O5D-PN-O2N
3	B	401	NAD	C5D-O5D-PN-O1N
3	D	401	NAD	C5D-O5D-PN-O1N
3	D	401	NAD	C5D-O5D-PN-O2N
3	Q	401	NAD	C5D-O5D-PN-O1N

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Mol	Chain	Res	Type	Atoms
3	R	401	NAD	C5B-O5B-PA-O2A
3	O	401	NAD	C5D-O5D-PN-O2N
3	G	401	NAD	C5D-O5D-PN-O1N
3	H	401	NAD	C5B-O5B-PA-O2A
3	K	402	NAD	C4D-C5D-O5D-PN
3	J	401	NAD	PA-O3-PN-O2N
3	L	401	NAD	PN-O3-PA-O2A
3	R	401	NAD	PA-O3-PN-O2N
3	H	401	NAD	PA-O3-PN-O2N
3	F	401	NAD	PA-O3-PN-O1N
3	D	401	NAD	C4B-C5B-O5B-PA
3	G	401	NAD	C4D-C5D-O5D-PN
3	P	401	NAD	C4D-C5D-O5D-PN
3	A	401	NAD	PN-O3-PA-O2A
3	B	401	NAD	PA-O3-PN-O2N
3	K	402	NAD	C5D-O5D-PN-O3
3	A	401	NAD	C2D-C1D-N1N-C2N
3	C	401	NAD	C5B-O5B-PA-O3
3	C	401	NAD	C2D-C1D-N1N-C2N
3	C	401	NAD	C2D-C1D-N1N-C6N
3	P	401	NAD	C5B-O5B-PA-O3
3	F	401	NAD	C5B-O5B-PA-O3
3	C	401	NAD	C4D-C5D-O5D-PN
3	J	401	NAD	PA-O3-PN-O1N
3	K	401	NAD	PN-O3-PA-O1A
3	K	402	NAD	PN-O3-PA-O1A
3	L	401	NAD	PN-O3-PA-O1A
3	Q	402	NAD	PN-O3-PA-O1A
3	Q	402	NAD	PN-O3-PA-O2A
3	R	401	NAD	PA-O3-PN-O1N
3	G	401	NAD	PN-O3-PA-O1A
3	H	401	NAD	PA-O3-PN-O1N
3	F	401	NAD	PA-O3-PN-O2N
3	Q	402	NAD	C5B-O5B-PA-O2A
3	O	401	NAD	C5B-O5B-PA-O2A
3	O	401	NAD	C5D-O5D-PN-O1N
3	P	401	NAD	C5D-O5D-PN-O1N
3	G	401	NAD	C5B-O5B-PA-O1A
3	R	401	NAD	O4D-C4D-C5D-O5D
3	H	401	NAD	O4D-C4D-C5D-O5D
3	F	401	NAD	O4B-C4B-C5B-O5B

There are no ring outliers.

16 monomers are involved in 160 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	D	401	NAD	8	0
3	Q	401	NAD	8	0
3	R	401	NAD	7	0
3	K	402	NAD	9	0
3	P	401	NAD	9	0
3	F	401	NAD	9	0
3	K	401	NAD	9	0
3	B	401	NAD	12	0
3	O	401	NAD	14	0
3	Q	402	NAD	11	0
3	C	401	NAD	11	0
3	G	401	NAD	11	0
3	J	401	NAD	10	0
3	A	401	NAD	10	0
3	L	401	NAD	14	0
3	H	401	NAD	8	0

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

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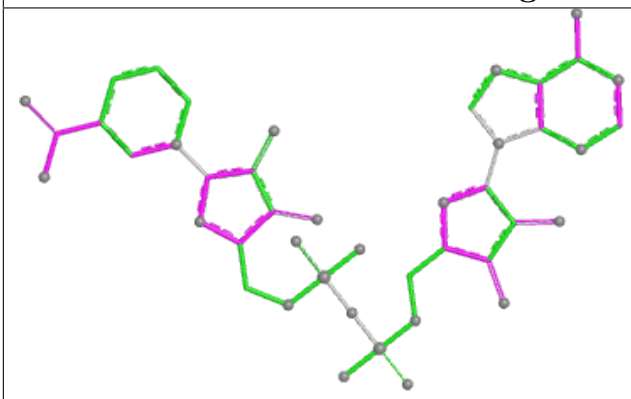	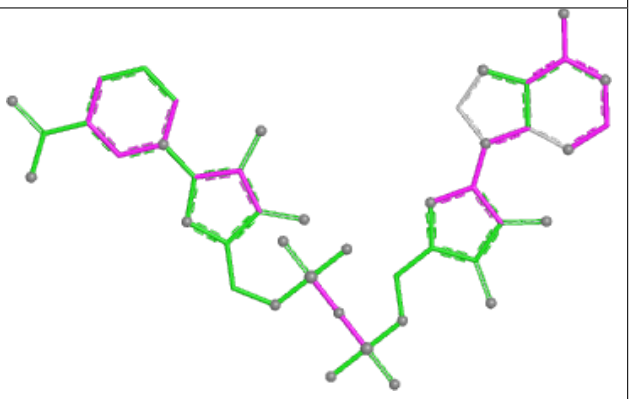
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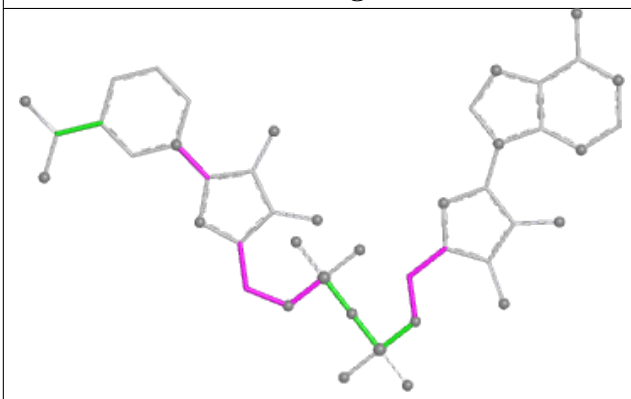	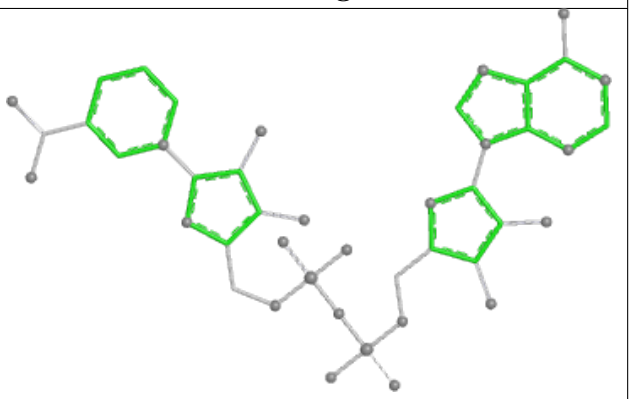
Torsions	**Rings**

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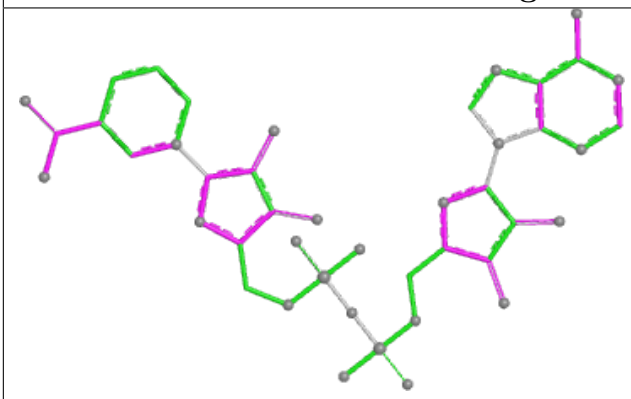
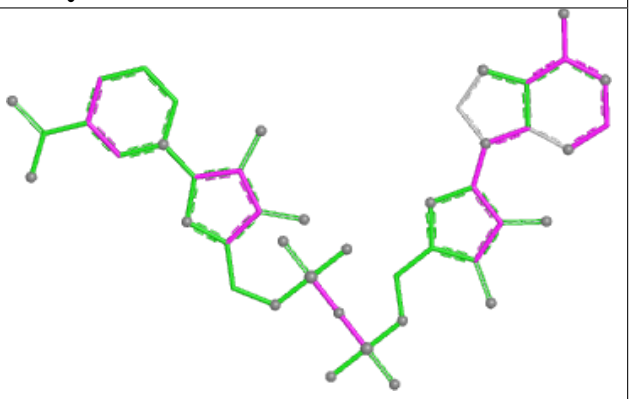
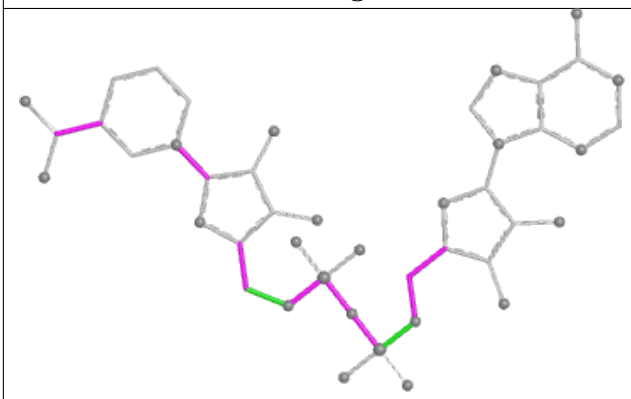
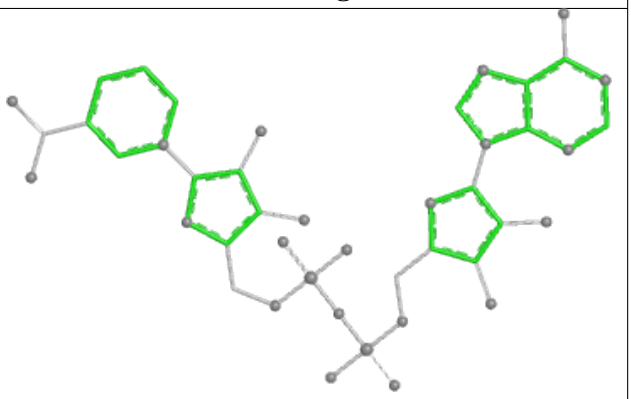
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

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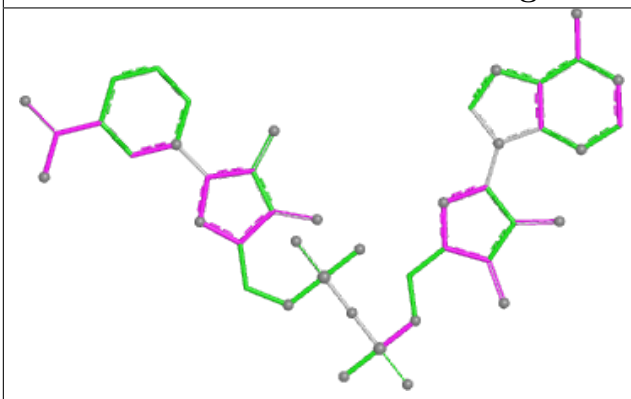
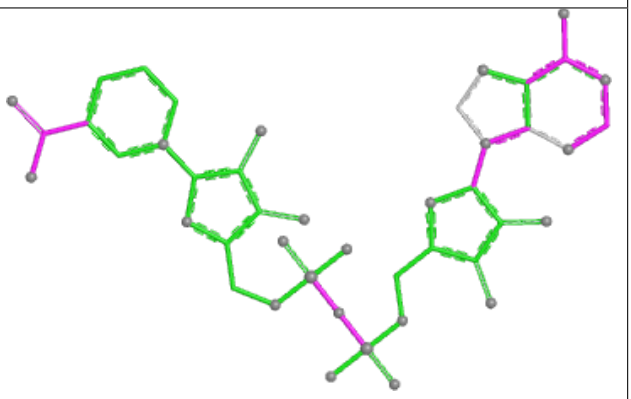
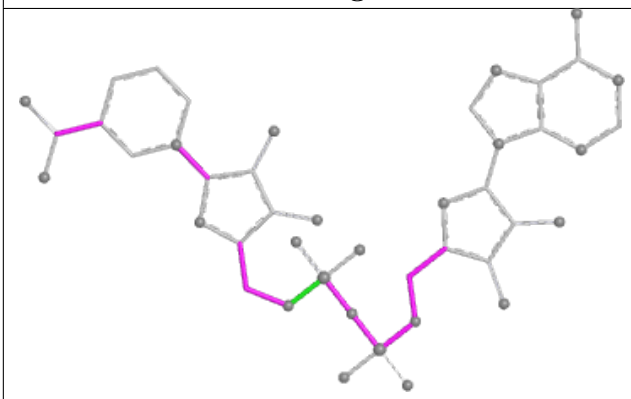
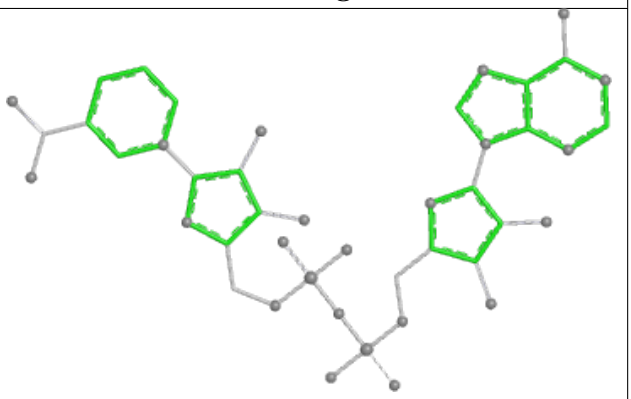
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

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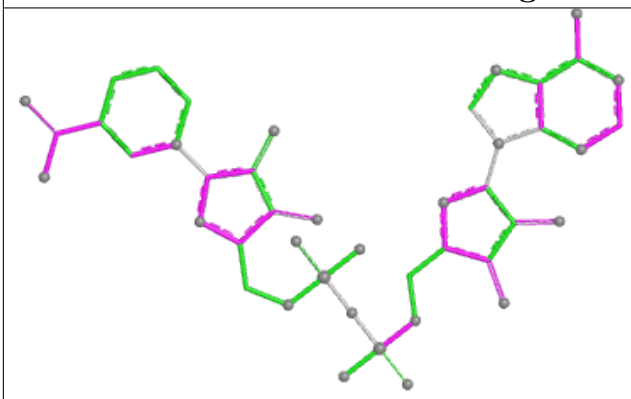
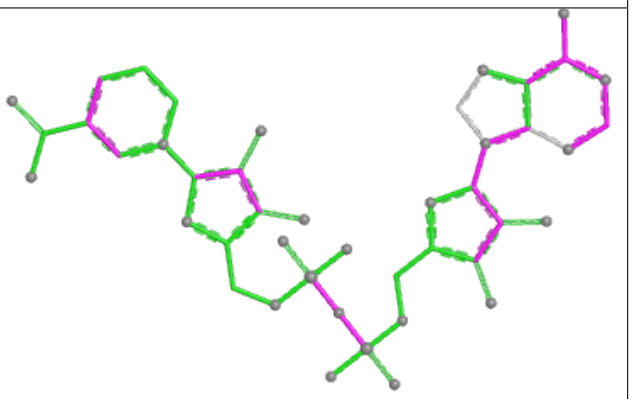
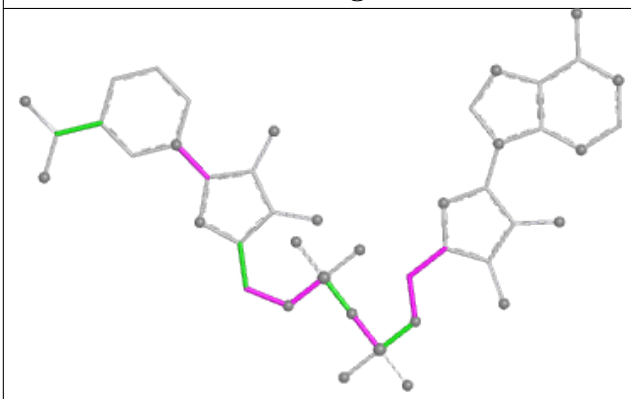
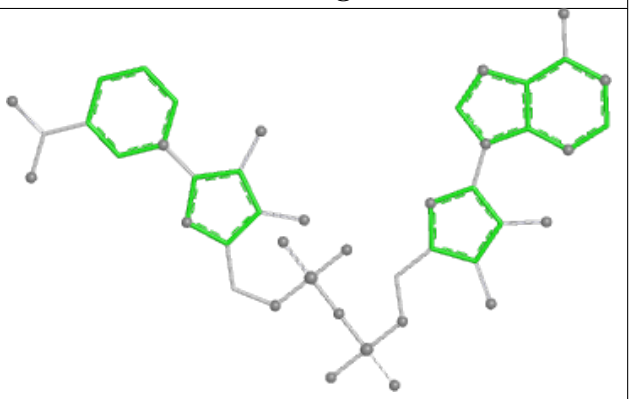
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

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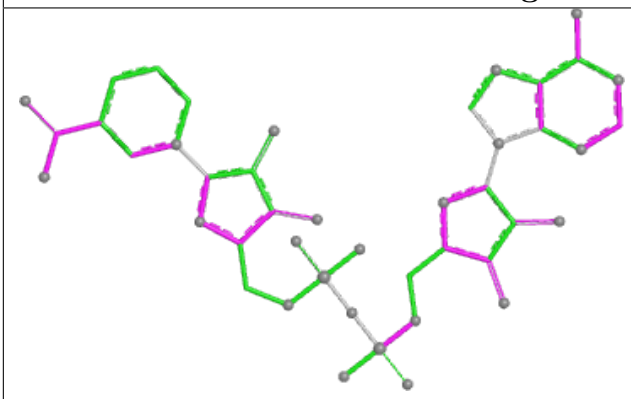
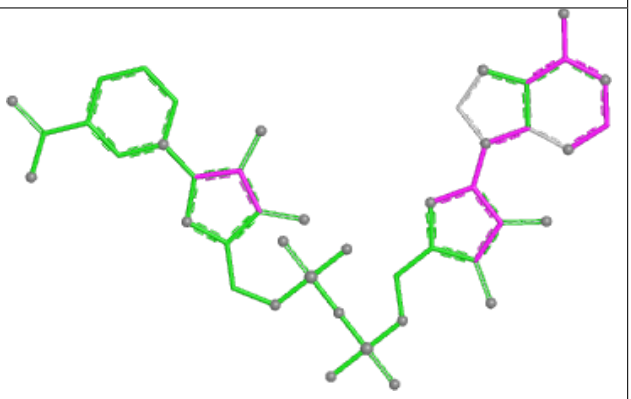
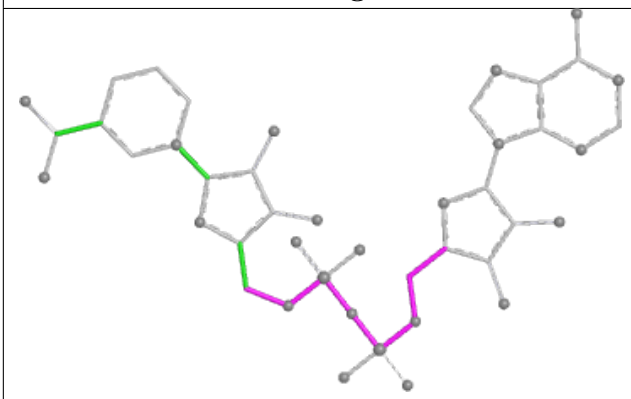
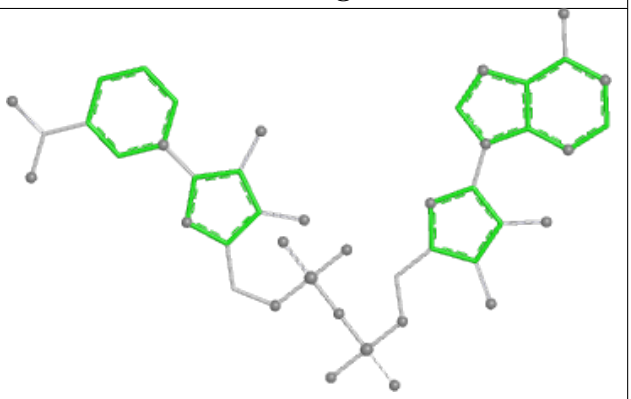
 Bond lengths	 Bond angles
 Torsions	 Rings

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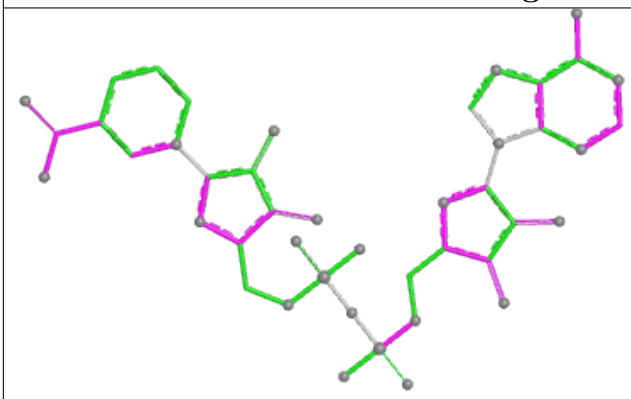
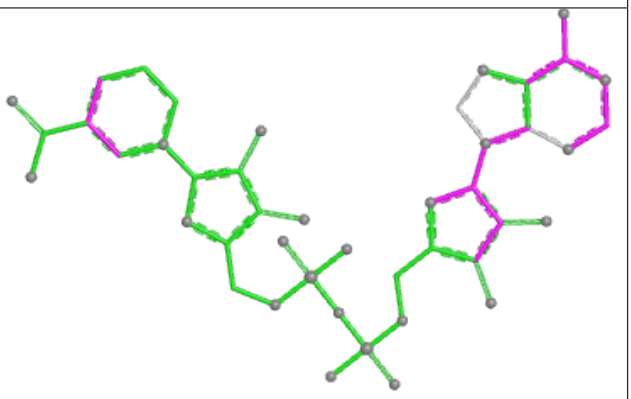
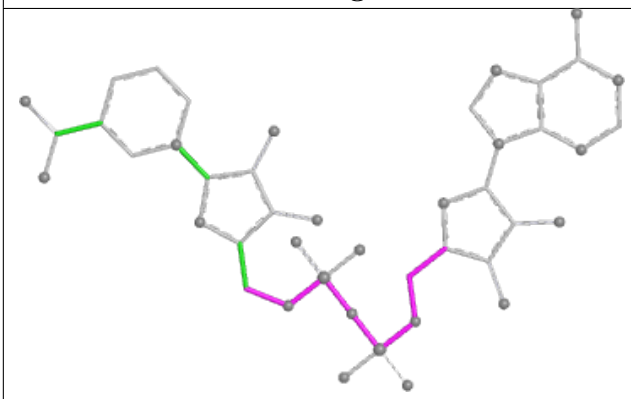
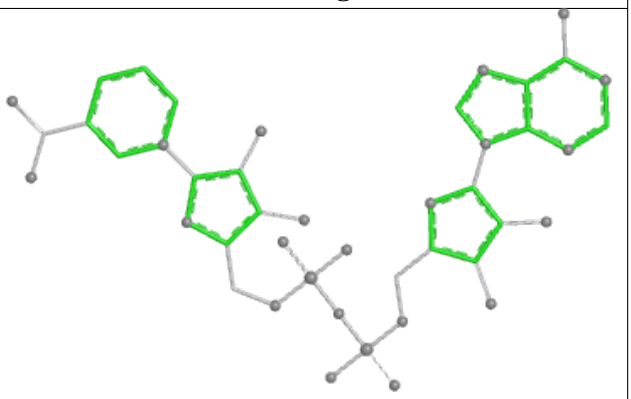
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

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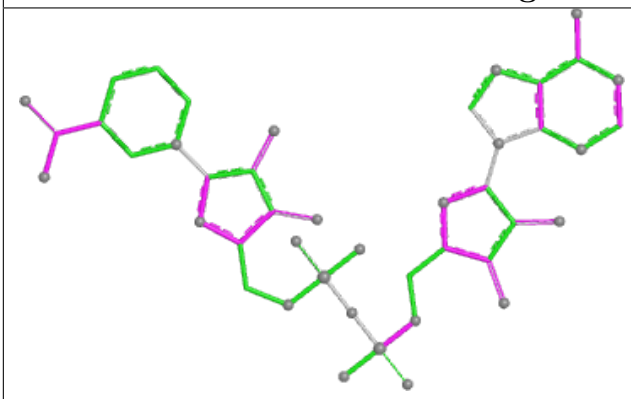
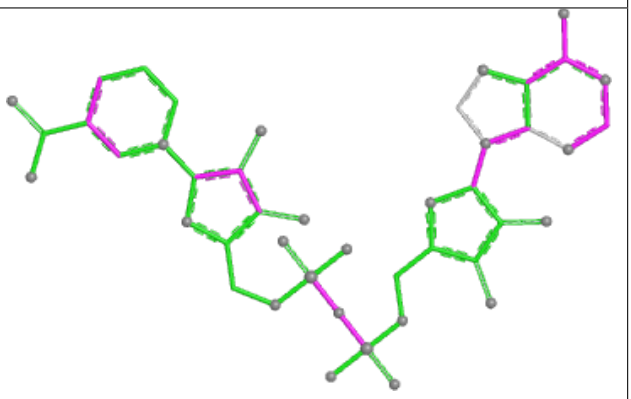
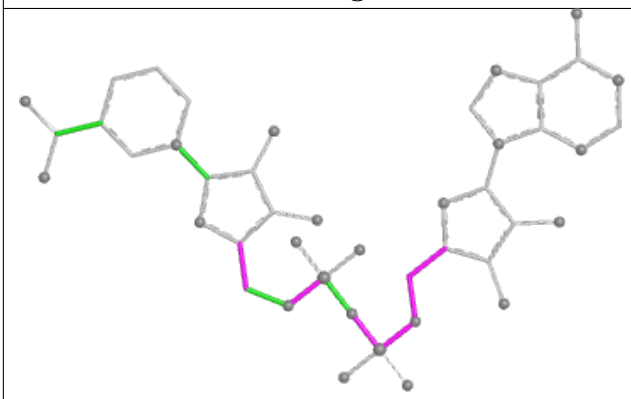
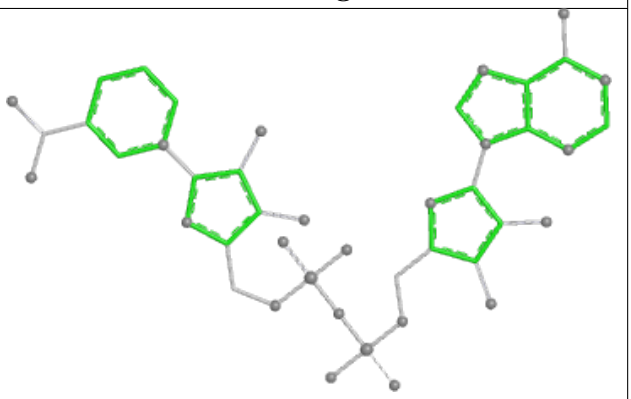
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

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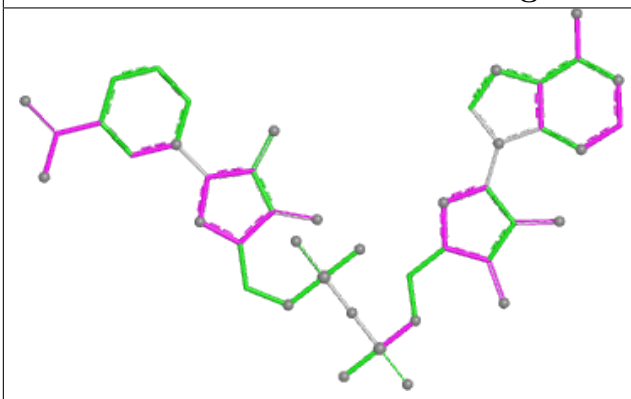
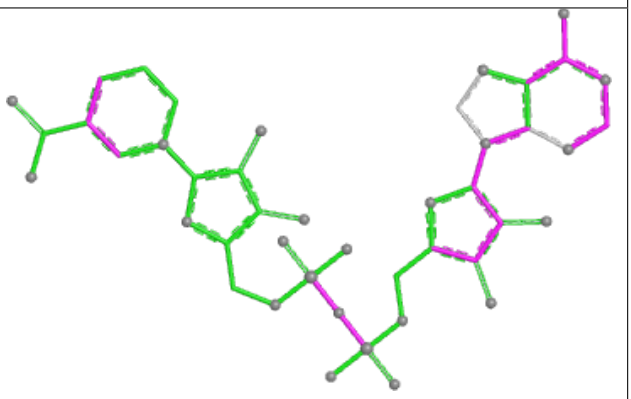
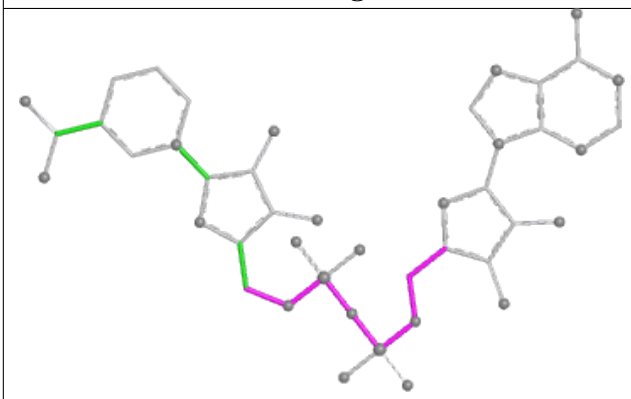


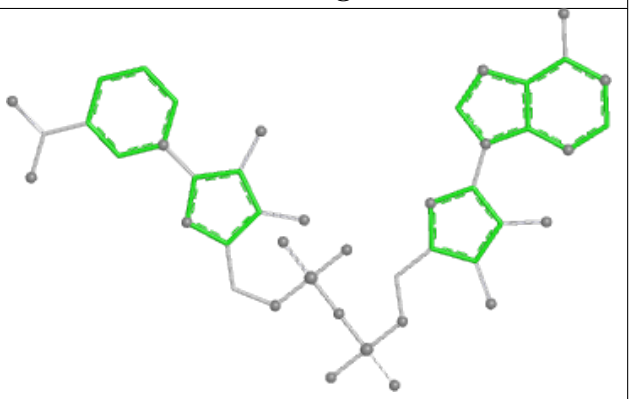
Bond lengths



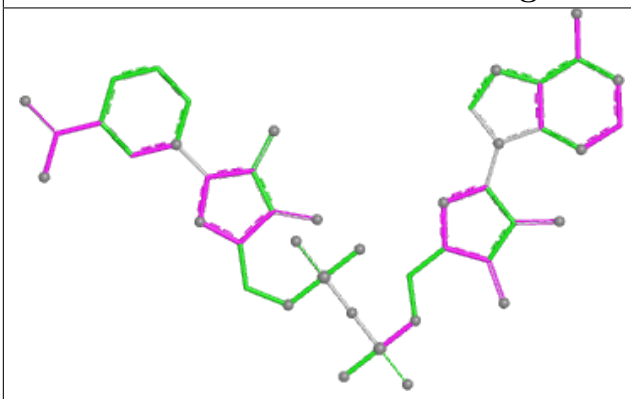
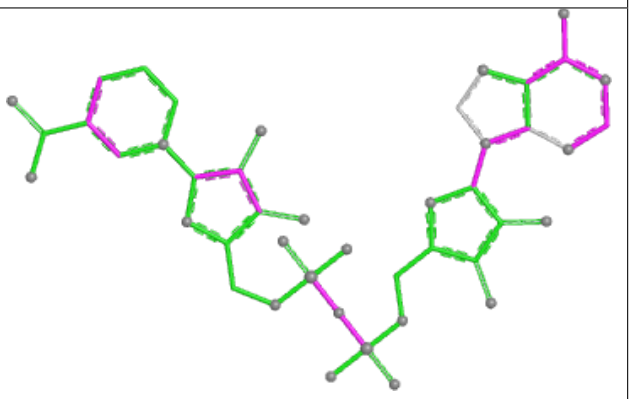
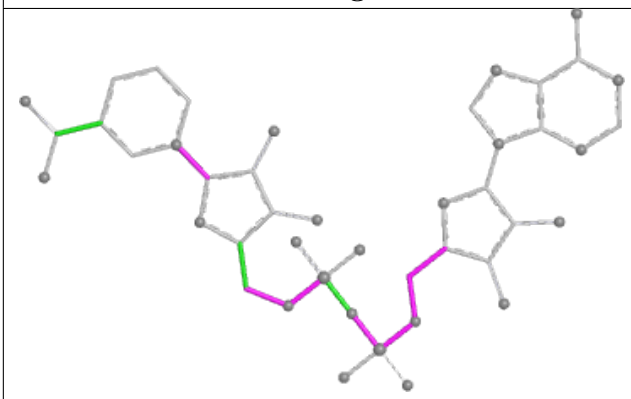
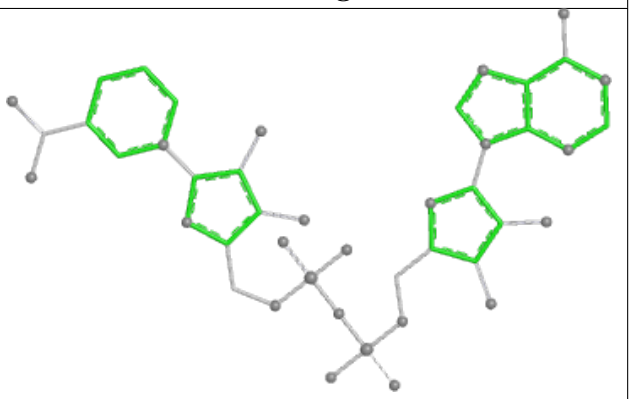
Bond angles



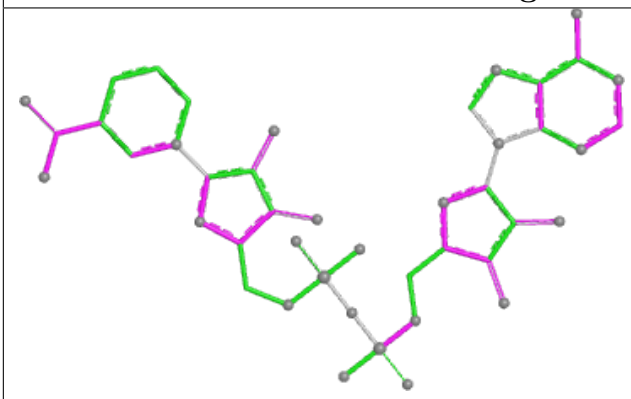
Torsions



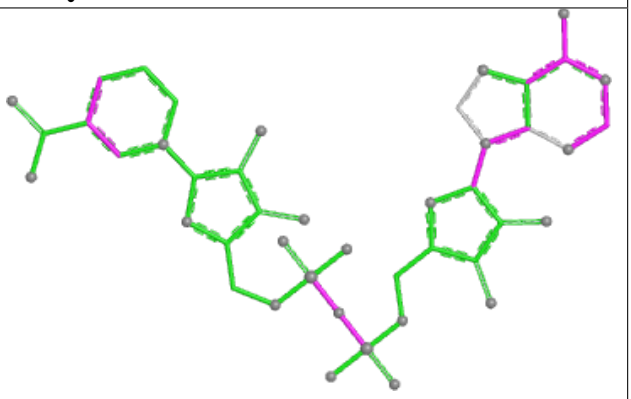
Rings

Ligand NAD O 401	
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

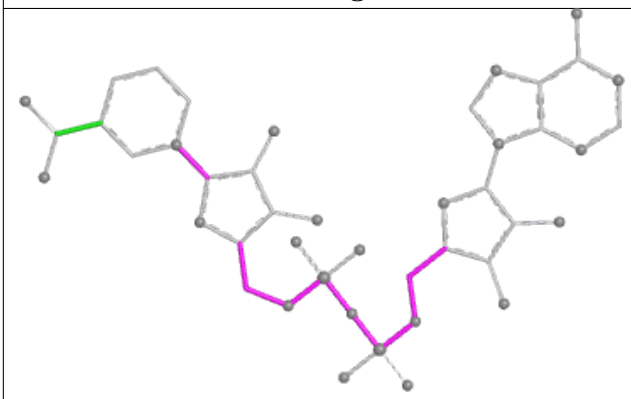
Ligand NAD Q 402



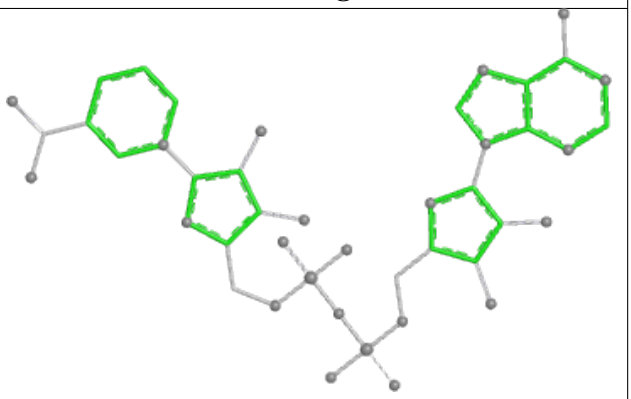
Bond lengths



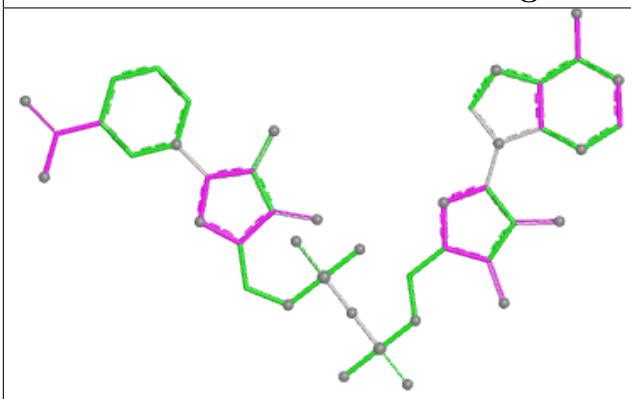
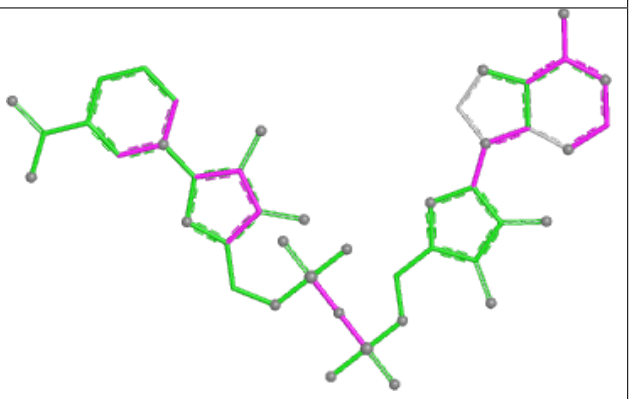
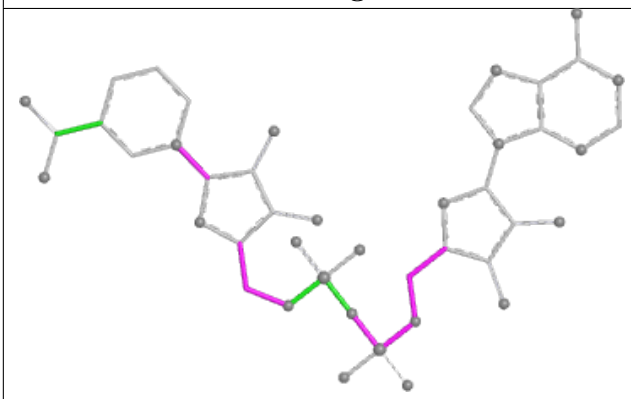
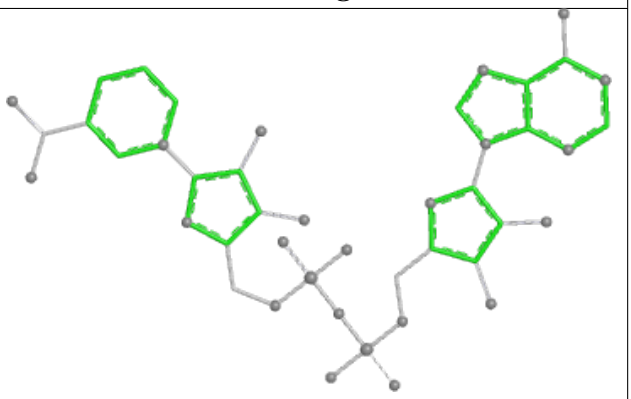
Bond angles

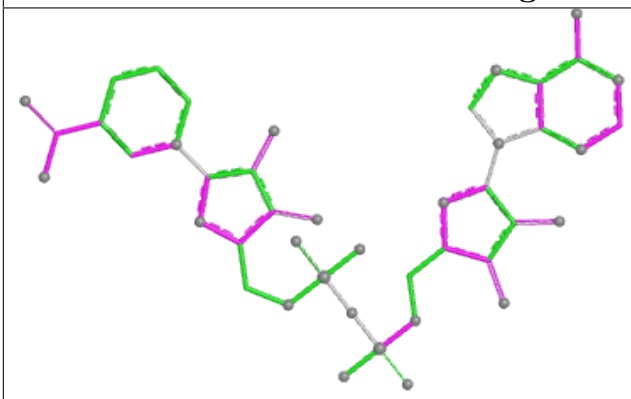
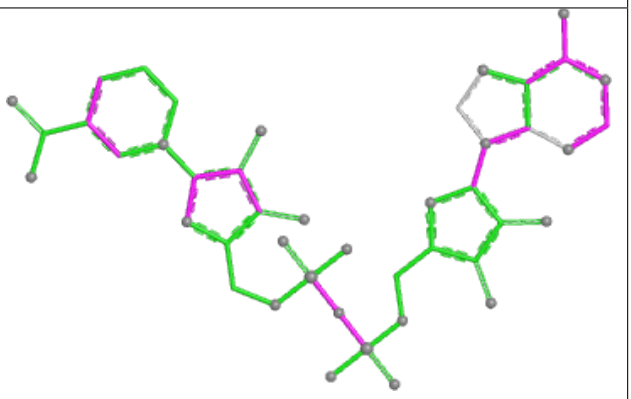
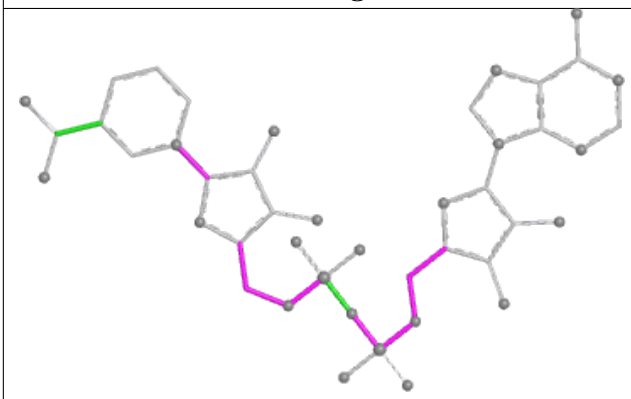
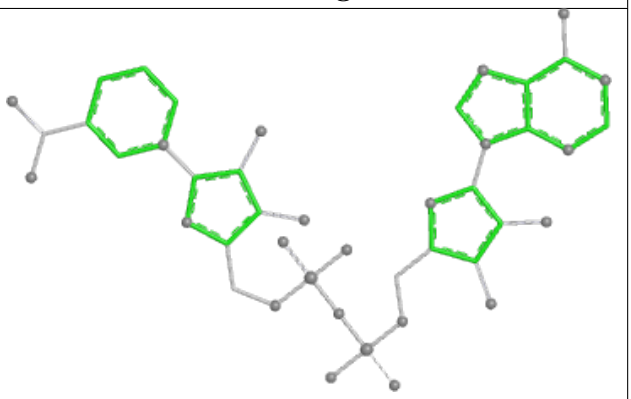


Torsions

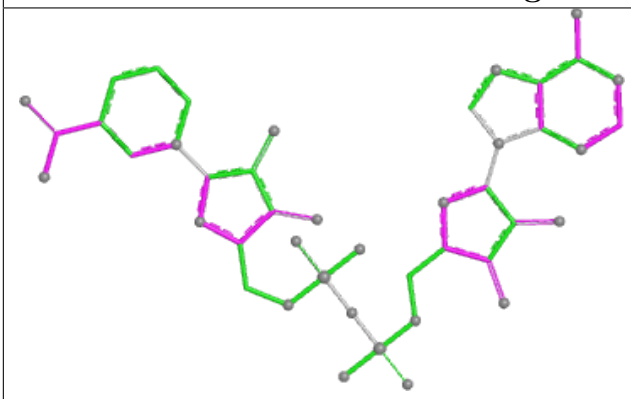


Rings

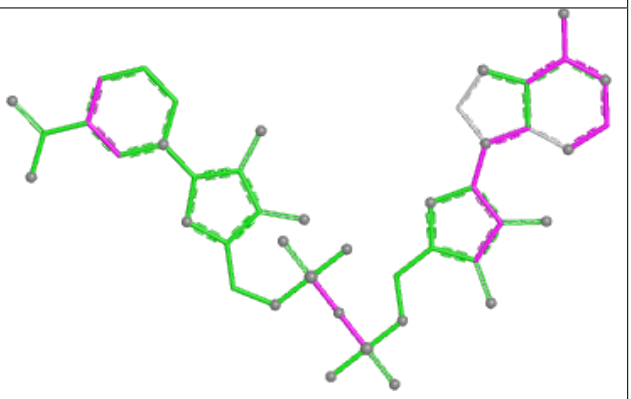
Ligand NAD C 401	
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

Ligand NAD G 401	
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

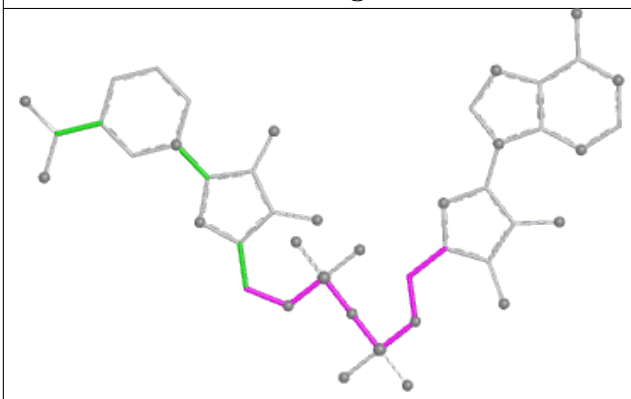
Ligand NAD J 401



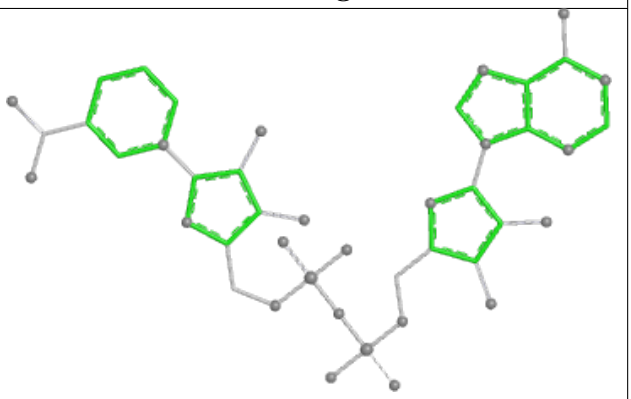
Bond lengths



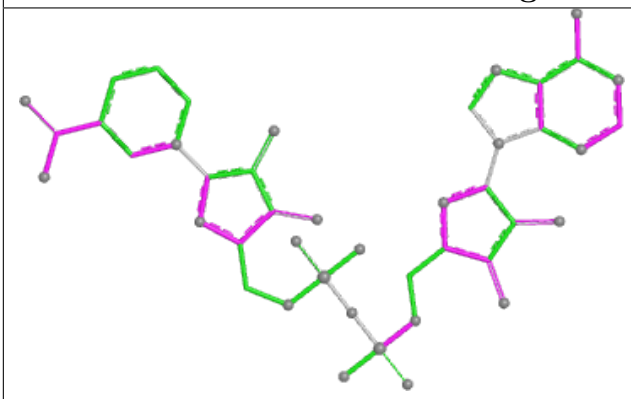
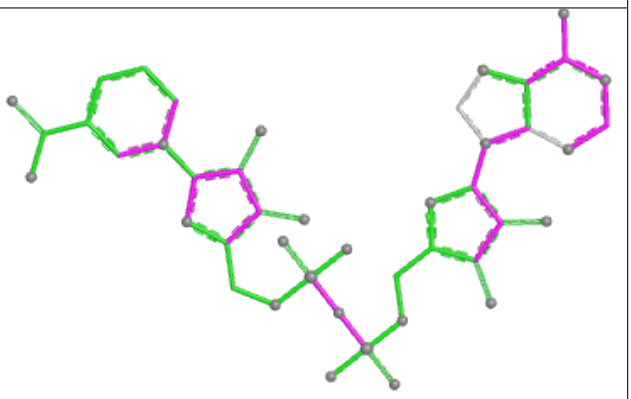
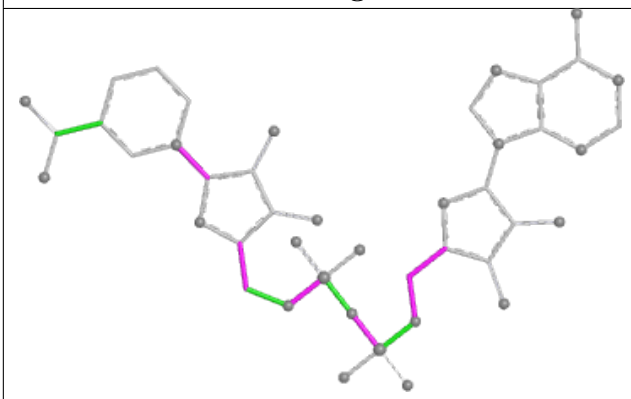
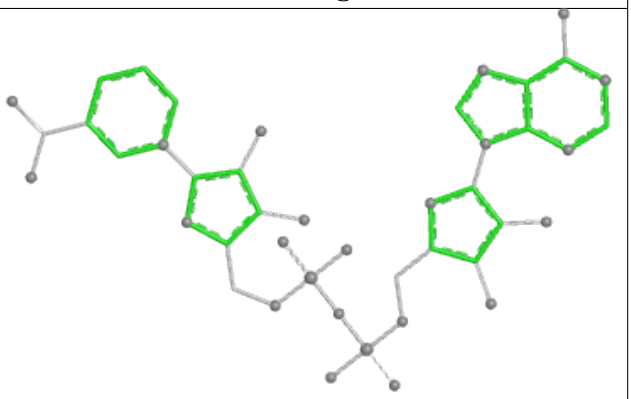
Bond angles

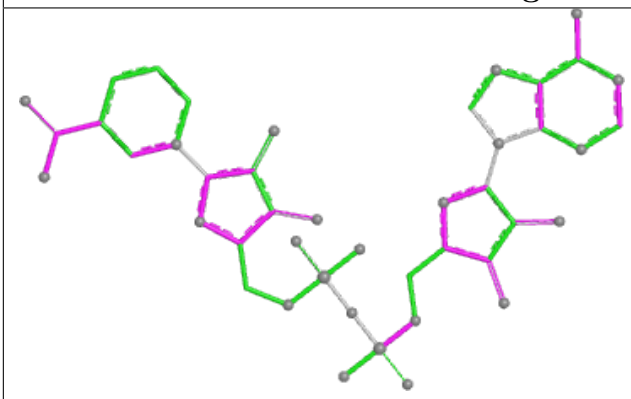
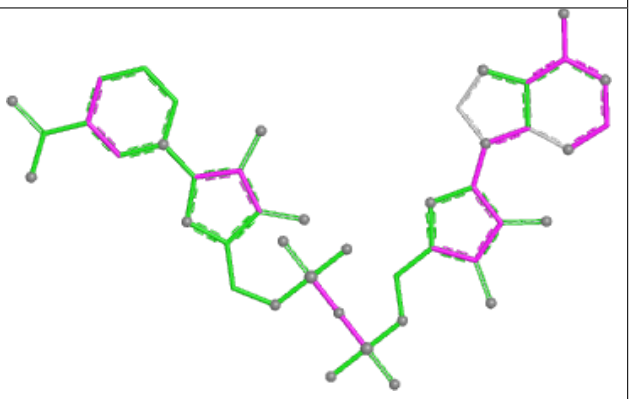
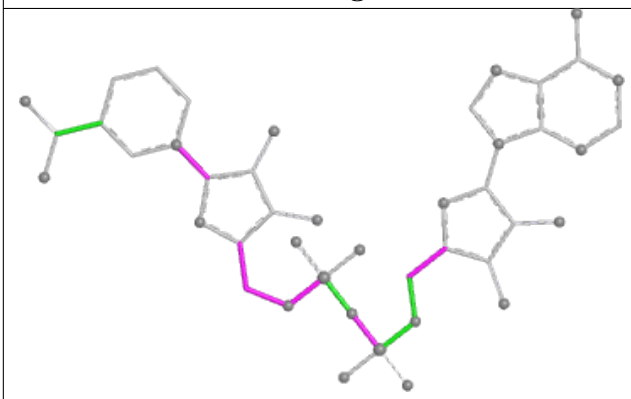
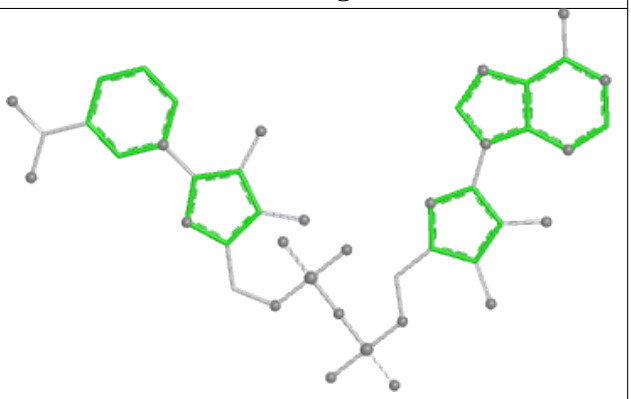


Torsions

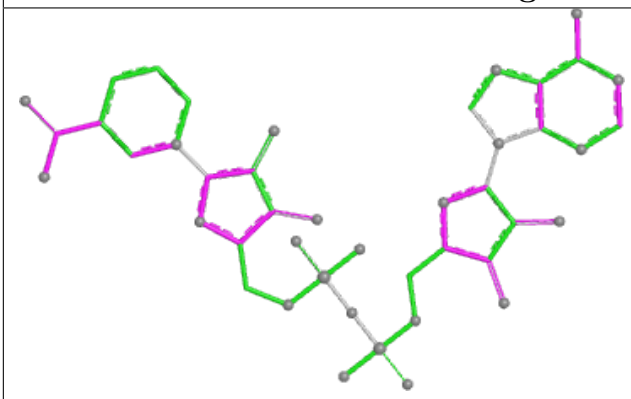


Rings

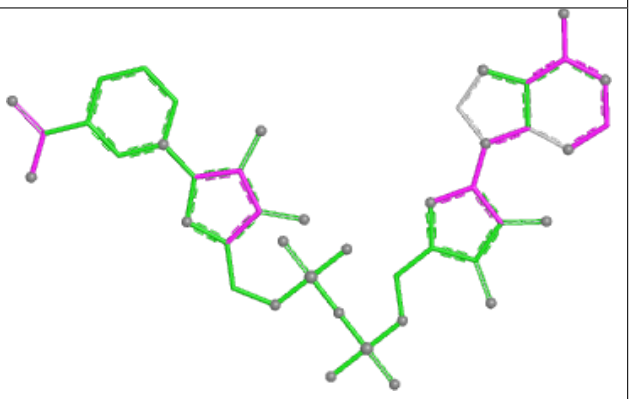
Ligand NAD A 401	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand NAD L 401	
	
Bond lengths	**Bond angles**
	
Torsions	**Rings**

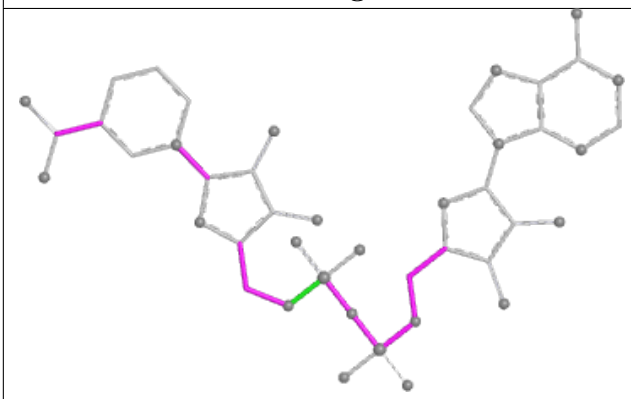
Ligand NAD H 401



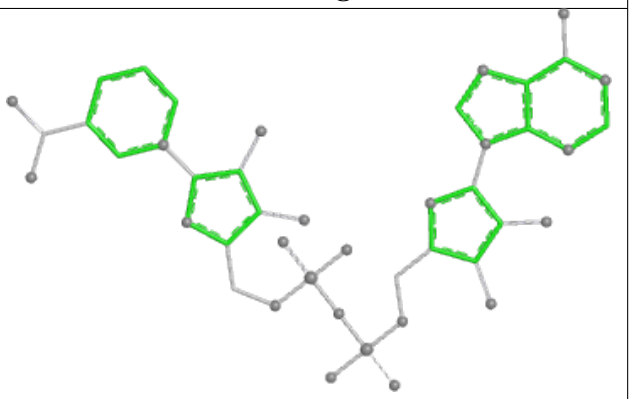
Bond lengths



Bond angles



Torsions



Rings

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 Map visualisation

This section contains visualisations of the EMDB entry EMD-13827. These allow visual inspection of the internal detail of the map and identification of artifacts.

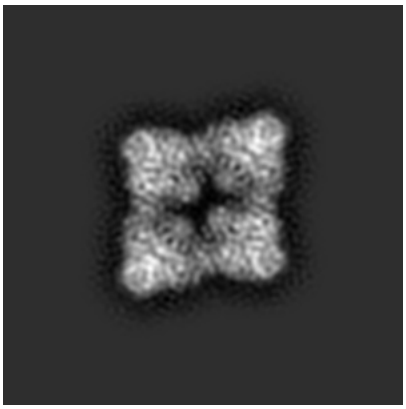
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

6.1.1 Primary map

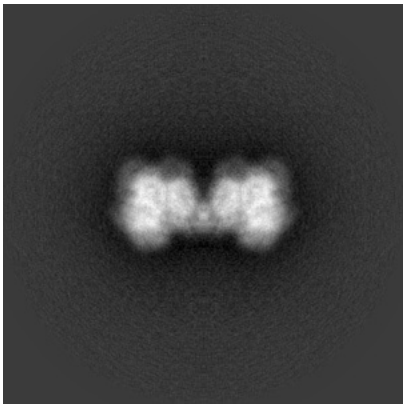
X

Y

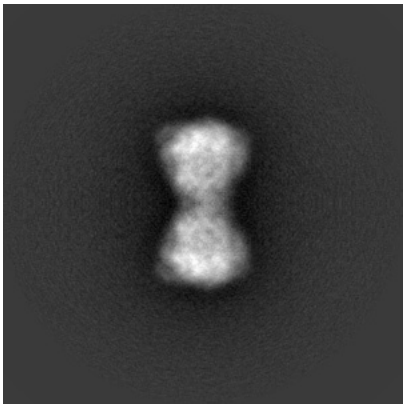


Z

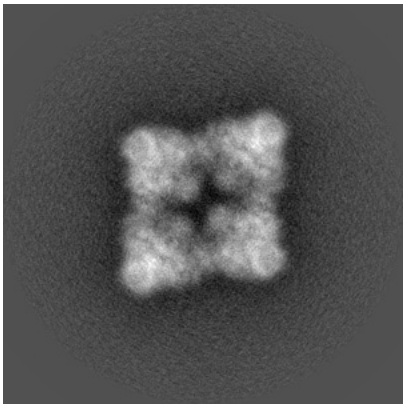
6.1.2 Raw map



X



Y



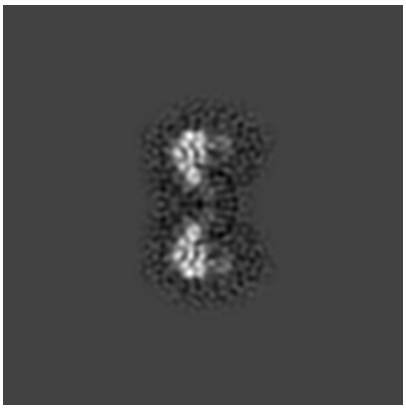
Z

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

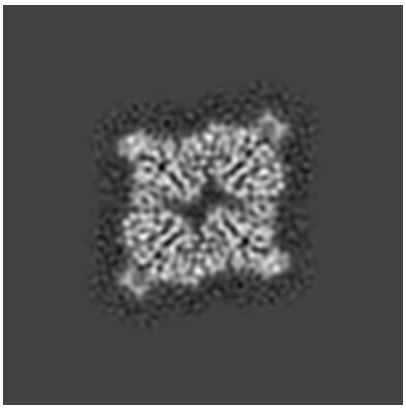
6.2 Central slices (i)

6.2.1 Primary map

X Index: 150

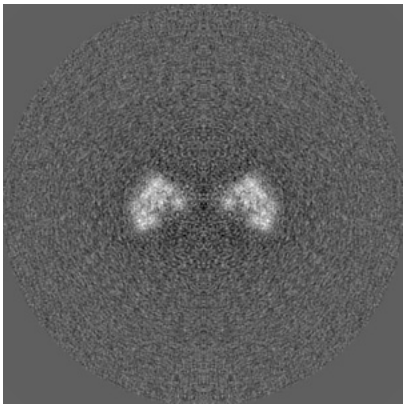


Y Index: 150

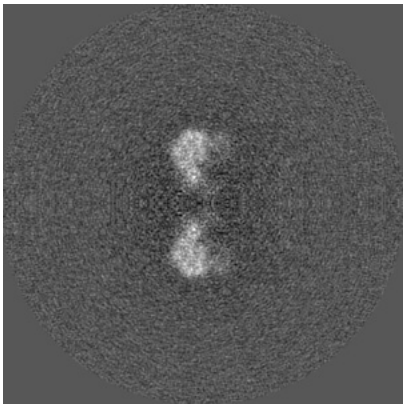


Z Index: 150

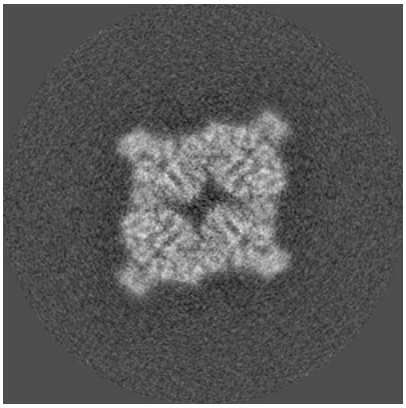
6.2.2 Raw map



X Index: 150



Y Index: 150



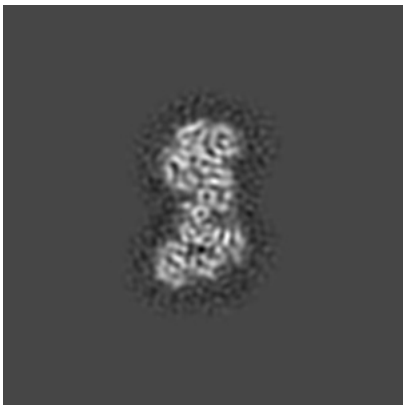
Z Index: 150

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

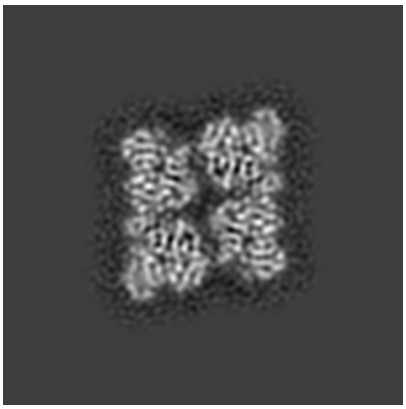
6.3 Largest variance slices (i)

6.3.1 Primary map

X Index: 110

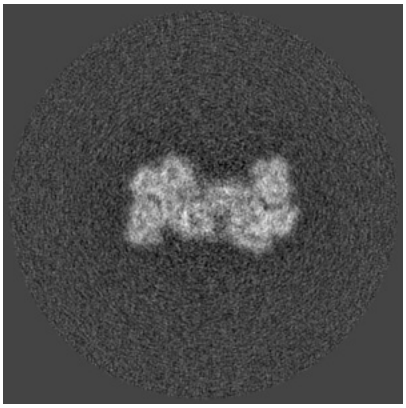


Y Index: 112

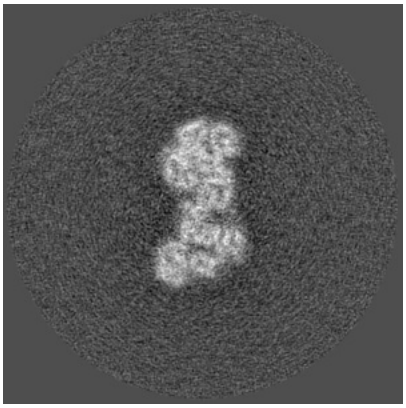


Z Index: 143

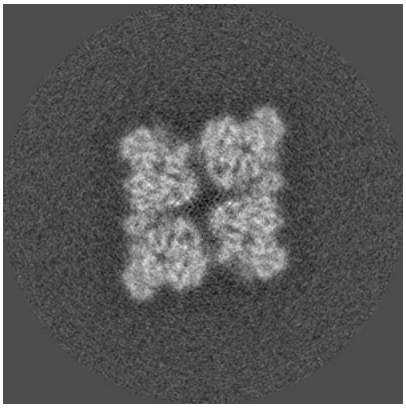
6.3.2 Raw map



X Index: 191



Y Index: 112

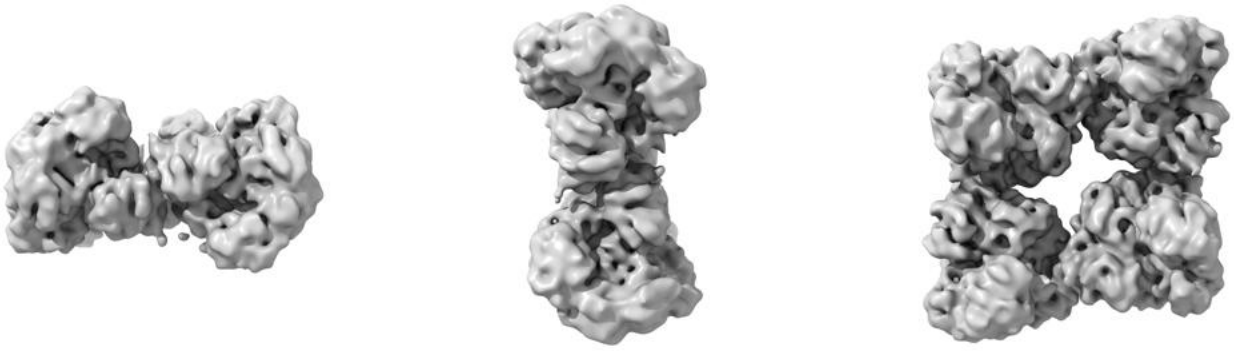


Z Index: 143

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

6.4 Orthogonal surface views (i)

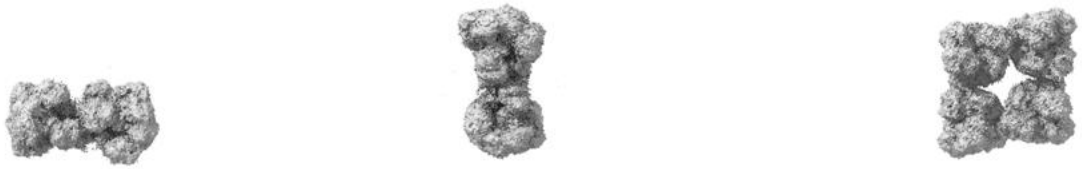
6.4.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.0125. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 Raw map



X Y Z

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

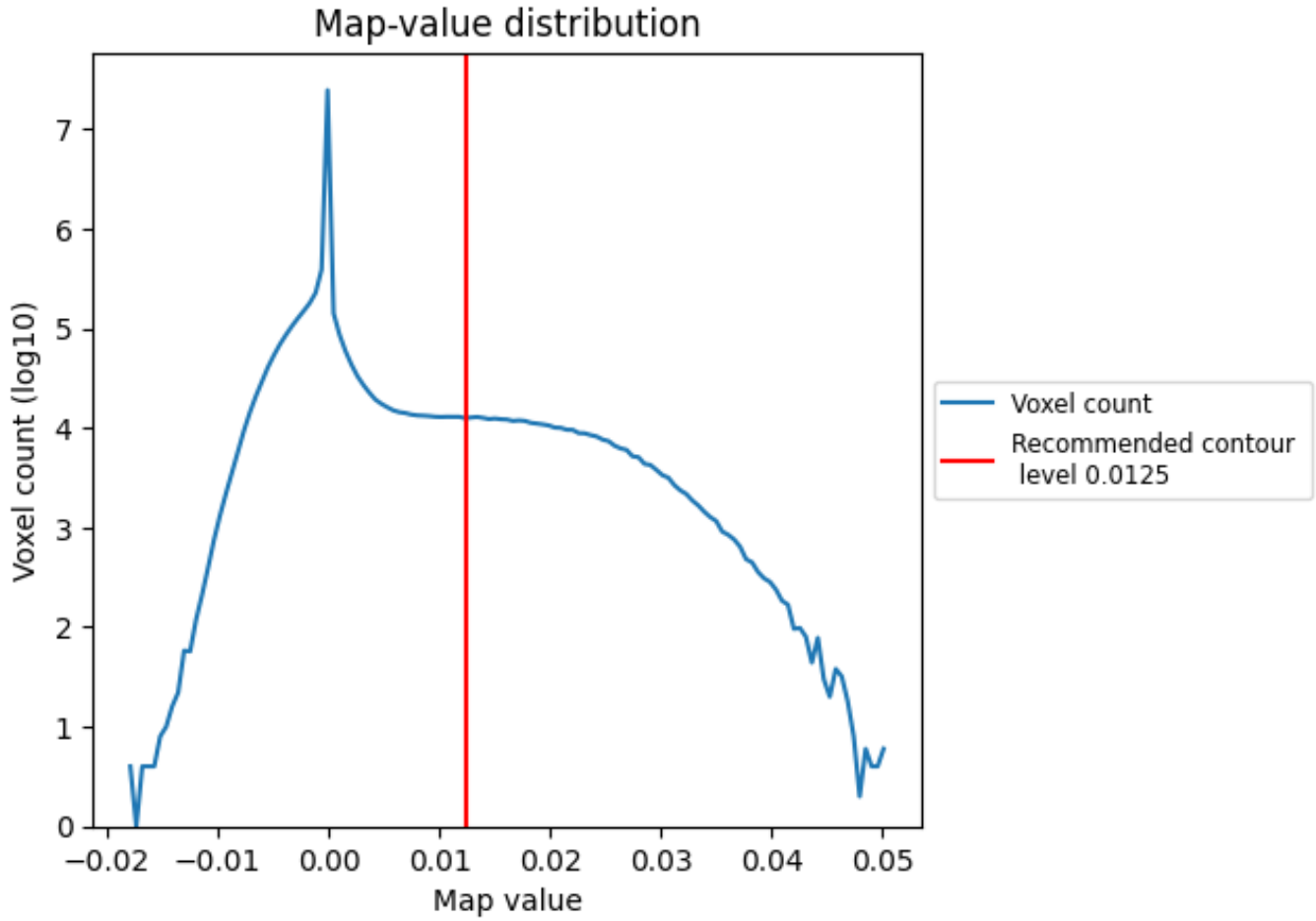
6.5 Mask visualisation (i)

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

7 Map analysis

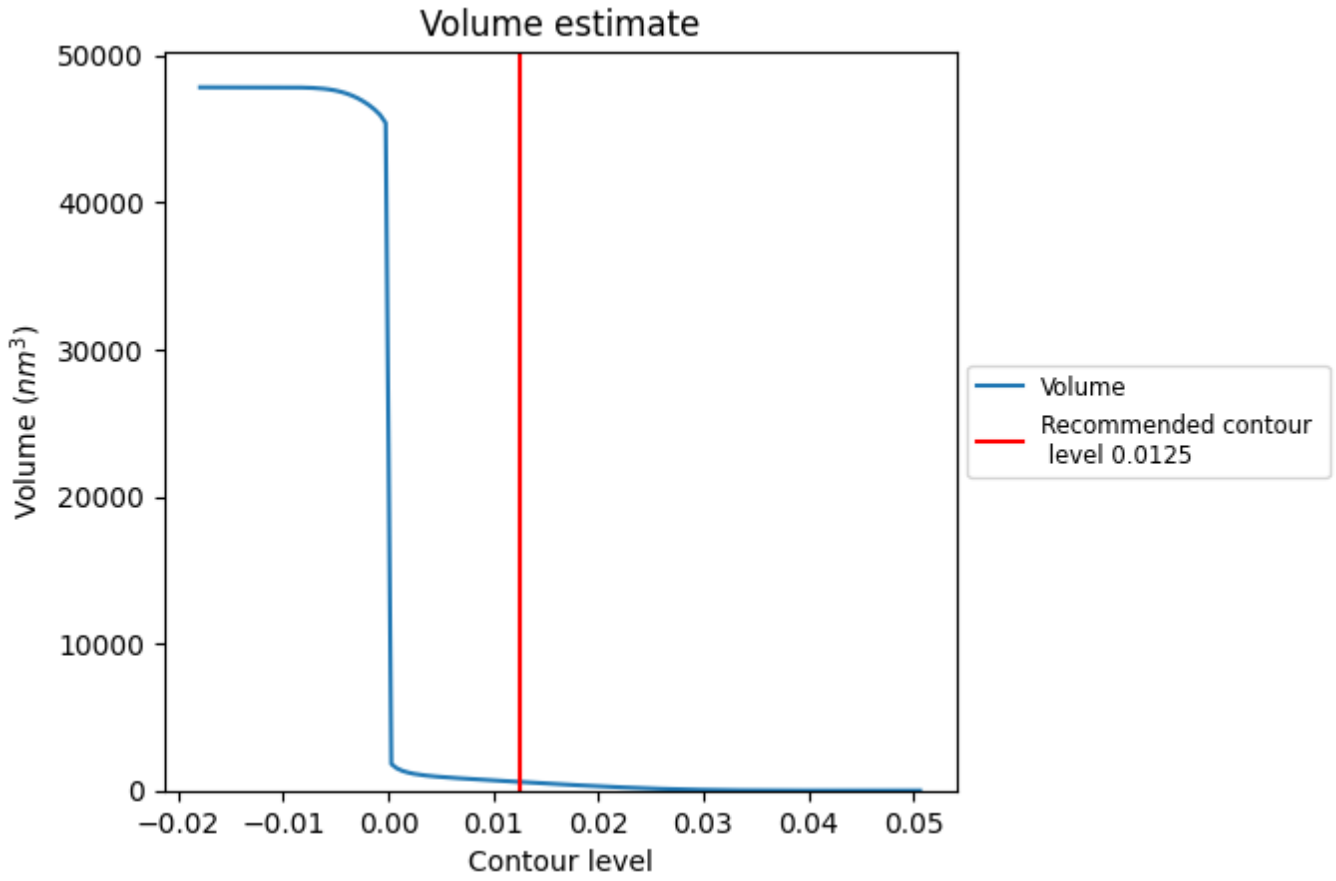
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

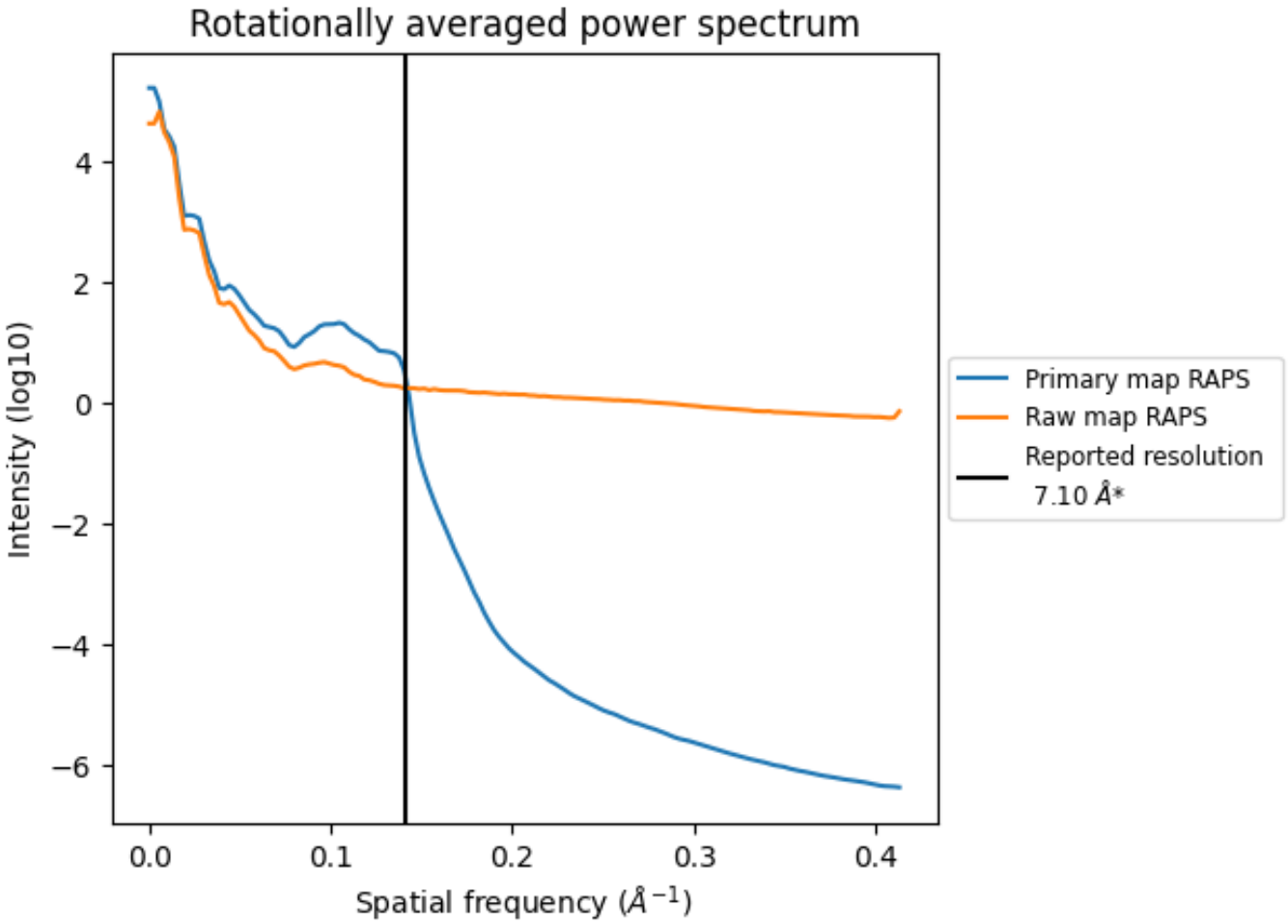
7.2 Volume estimate



The volume at the recommended contour level is 588 nm^3; this corresponds to an approximate mass of 531 kDa.

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

7.3 Rotationally averaged power spectrum (i)

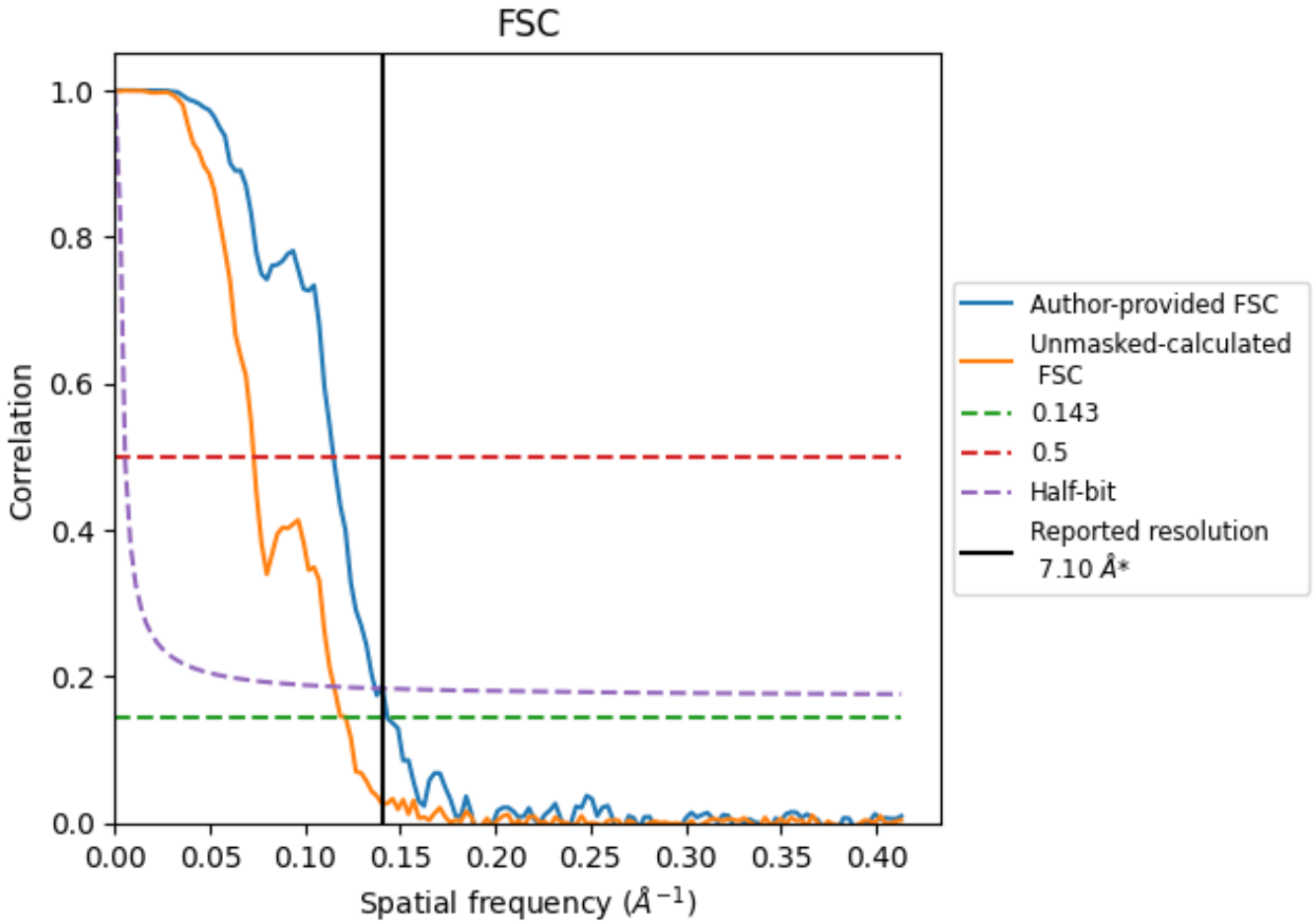


*Reported resolution corresponds to spatial frequency of 0.141 Å^{-1}

8 Fourier-Shell correlation

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

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.141 Å^{-1}

8.2 Resolution estimates (i)

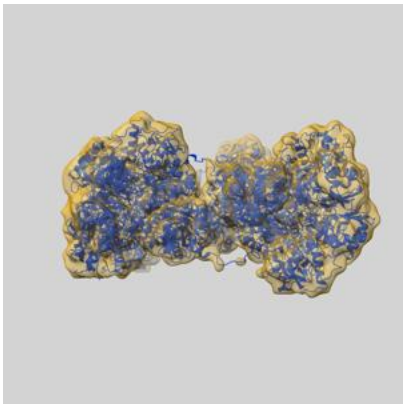
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.10	-	-
Author-provided FSC curve	6.98	8.70	7.31
Unmasked-calculated*	8.24	13.70	8.68

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 8.24 differs from the reported value 7.1 by more than 10 %

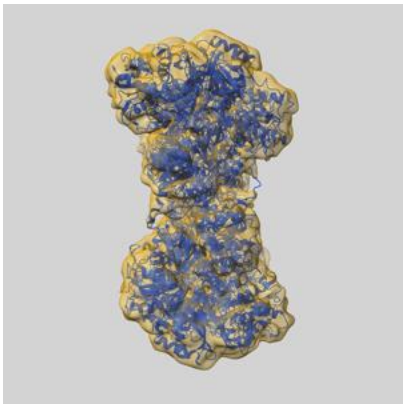
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-13827 and PDB model 7Q56. Per-residue inclusion information can be found in section 3 on page 7.

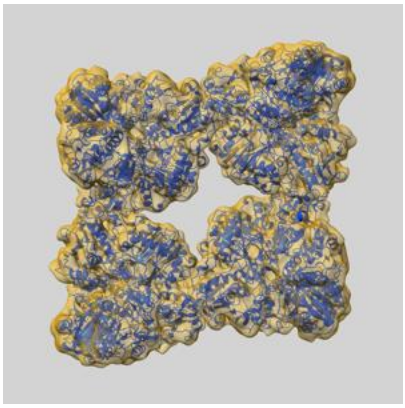
9.1 Map-model overlay



X



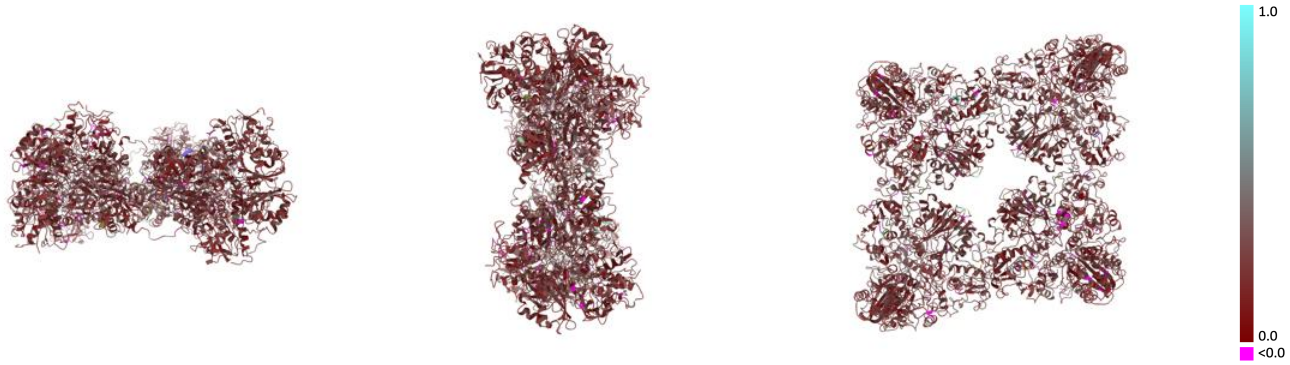
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0125 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

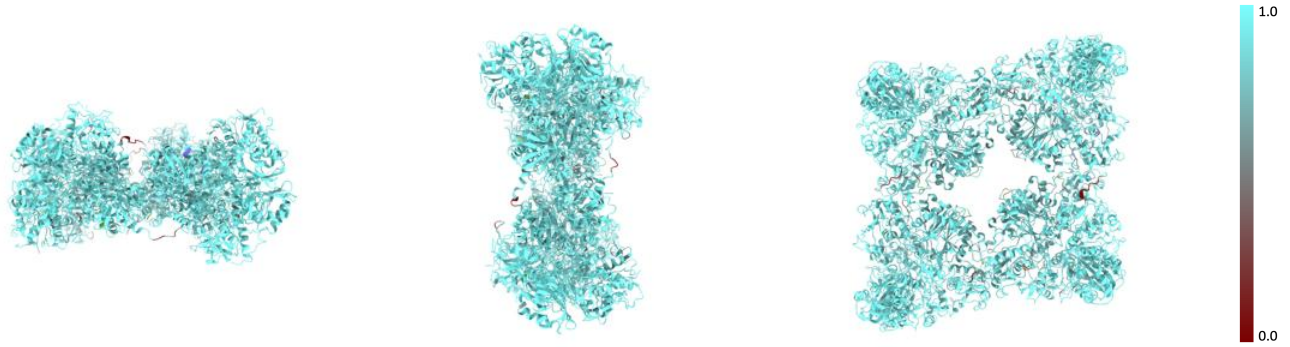
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

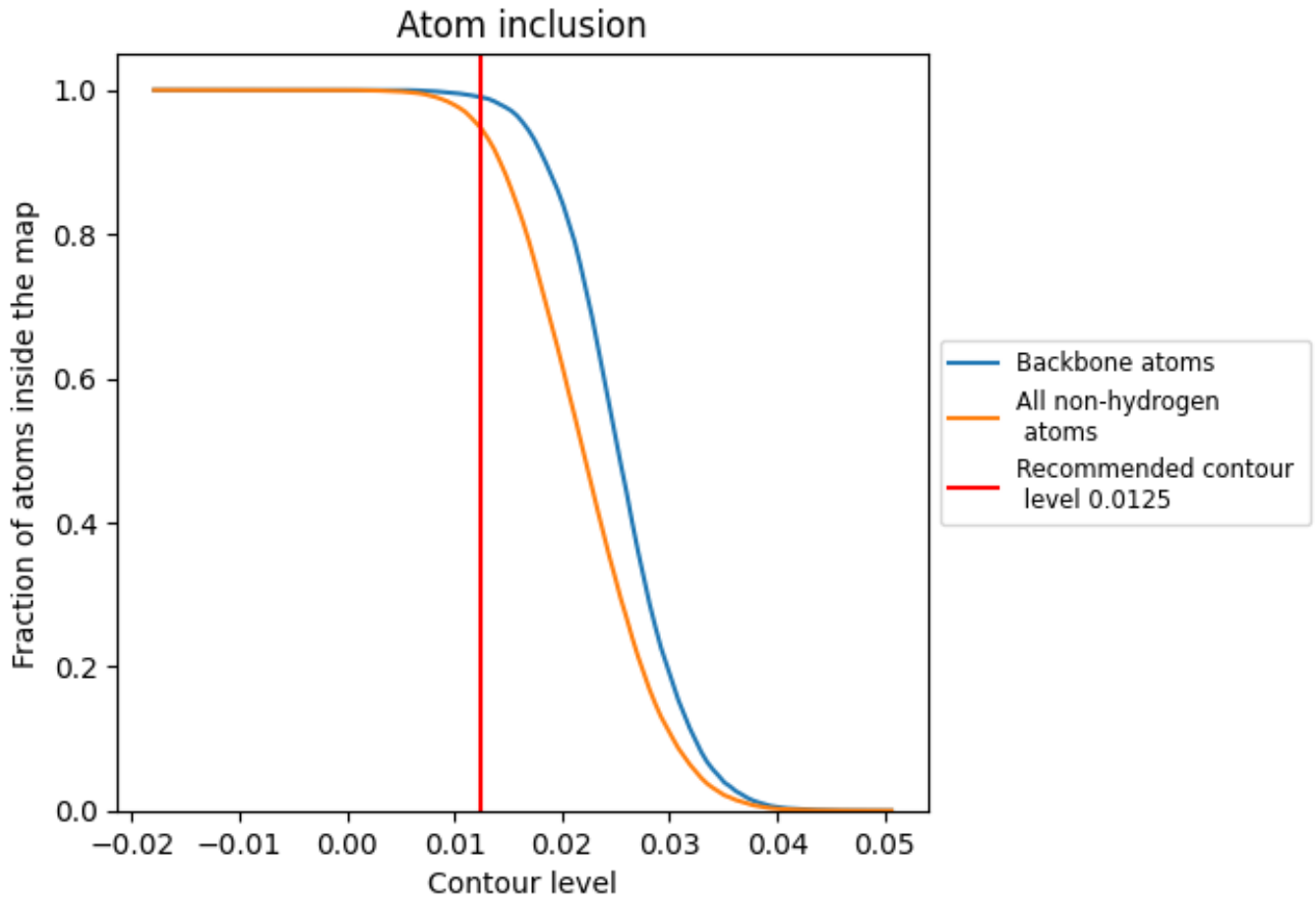
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.0125).

9.4 Atom inclusion (i)



At the recommended contour level, 99% of all backbone atoms, 95% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.0125) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9466	0.2310
A	0.9244	0.2430
B	0.9619	0.2250
C	0.9333	0.2360
D	0.9627	0.2270
E	0.9299	0.2340
F	0.9651	0.2200
G	0.9459	0.2380
H	0.9466	0.2130
I	0.9284	0.2400
J	0.9627	0.2260
K	0.9362	0.2380
L	0.9615	0.2250
O	0.9289	0.2360
P	0.9615	0.2190
Q	0.9420	0.2410
R	0.9607	0.2230