



Full wwPDB X-ray Structure Validation Report ⓘ

May 18, 2021 – 06:05 PM EDT

PDB ID : 7LZ4
Title : Crystal structure of A211D mutant of Protein Kinase A RIa subunit, a Carney Complex mutation
Authors : Del Rio, J.; Wu, J.; Taylor, S.S.
Deposited on : 2021-03-08
Resolution : 4.16 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

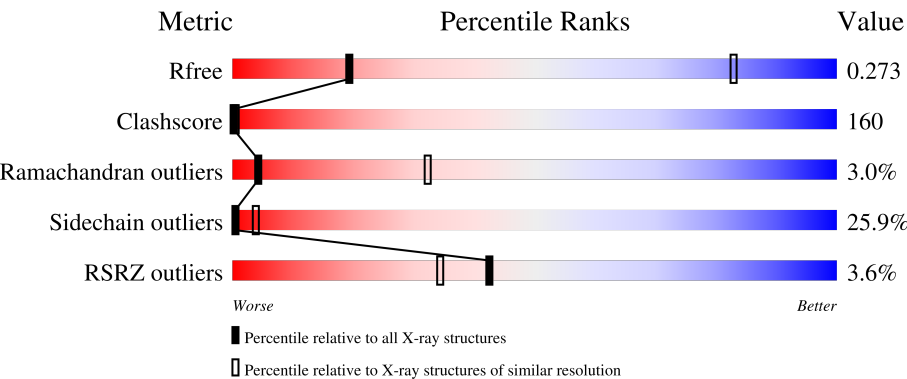
MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.18
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.18

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 4.16 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	130704	1020 (4.54-3.76)
Clashscore	141614	1028 (4.52-3.80)
Ramachandran outliers	138981	1005 (4.54-3.78)
Sidechain outliers	138945	1024 (4.54-3.76)
RSRZ outliers	127900	1055 (4.62-3.70)

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

Mol	Chain	Length	Quality of chain
1	A	269	<div><div>5%</div><div>14%59%21%5%</div></div>
1	B	269	<div><div>4%</div><div>15%55%26%. </div></div>
1	C	269	<div><div>3%</div><div>13%55%25%7%</div></div>
1	D	269	<div><div>4%</div><div>14%58%22%5%. </div></div>
1	E	269	<div><div>4%</div><div>17%59%20%. </div></div>

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Mol	Chain	Length	Quality of chain
1	F	269	
1	G	269	
1	H	269	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	CMP	A	401	-	-	X	-
2	CMP	A	402	-	-	X	-
2	CMP	B	401	-	-	X	-
2	CMP	B	402	-	-	X	-
2	CMP	C	401	-	-	X	-
2	CMP	C	402	-	-	X	-
2	CMP	D	401	-	-	X	-
2	CMP	D	402	-	-	X	-
2	CMP	E	401	-	-	X	-
2	CMP	E	402	-	-	X	-
2	CMP	F	401	-	-	X	-
2	CMP	F	402	-	-	X	-
2	CMP	G	401	-	-	X	-
2	CMP	G	402	-	-	X	-
2	CMP	H	401	-	-	X	-
2	CMP	H	402	-	-	X	-

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 17138 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

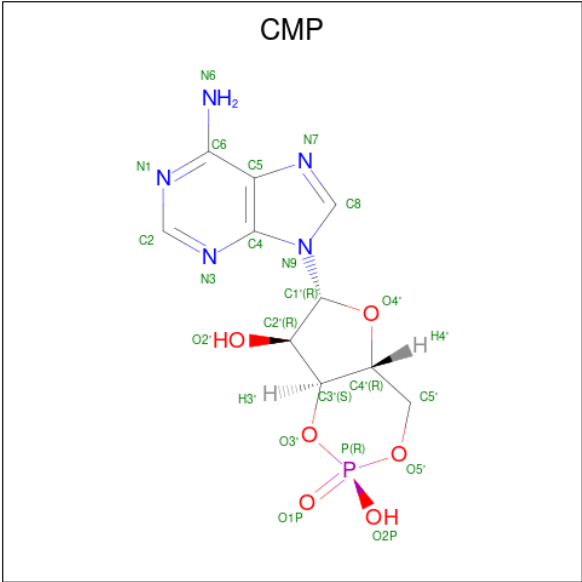
- Molecule 1 is a protein called cAMP-dependent protein kinase type I-alpha regulatory subunit, N-terminally processed.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	268	Total	C	N	O	S	0	0	0
			2100	1333	358	401	8			
1	B	268	Total	C	N	O	S	0	0	0
			2100	1333	358	401	8			
1	C	268	Total	C	N	O	S	0	0	0
			2100	1333	358	401	8			
1	D	266	Total	C	N	O	S	0	0	0
			2086	1325	356	397	8			
1	E	268	Total	C	N	O	S	0	0	0
			2100	1333	358	401	8			
1	F	268	Total	C	N	O	S	0	0	0
			2100	1333	358	401	8			
1	G	268	Total	C	N	O	S	0	0	0
			2100	1333	358	401	8			
1	H	268	Total	C	N	O	S	0	0	0
			2100	1333	358	401	8			

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	211	ASP	ALA	engineered mutation	UNP P00514
B	211	ASP	ALA	engineered mutation	UNP P00514
C	211	ASP	ALA	engineered mutation	UNP P00514
D	211	ASP	ALA	engineered mutation	UNP P00514
E	211	ASP	ALA	engineered mutation	UNP P00514
F	211	ASP	ALA	engineered mutation	UNP P00514
G	211	ASP	ALA	engineered mutation	UNP P00514
H	211	ASP	ALA	engineered mutation	UNP P00514

- Molecule 2 is ADENOSINE-3',5'-CYCLIC-MONOPHOSPHATE (three-letter code: CMP) (formula: C₁₀H₁₂N₅O₆P) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	A	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	B	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	B	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	C	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	C	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	D	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	D	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	E	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	E	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	F	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	F	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	G	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	G	1	Total	C	N	O	P	0	0
			22	10	5	6	1		

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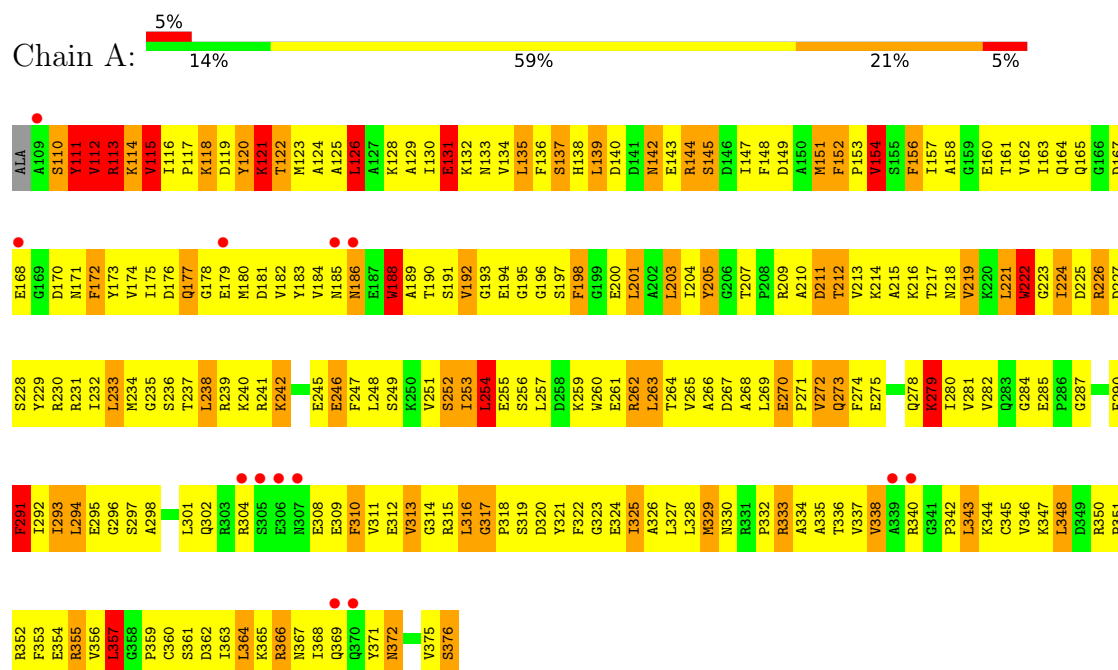
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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	H	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
2	H	1	Total	C	N	O	P	0	0
			22	10	5	6	1		

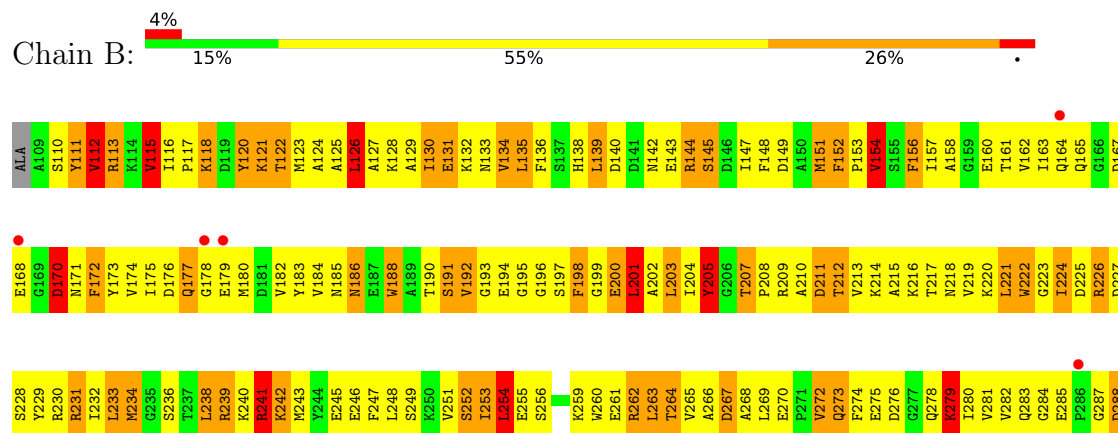
3 Residue-property plots

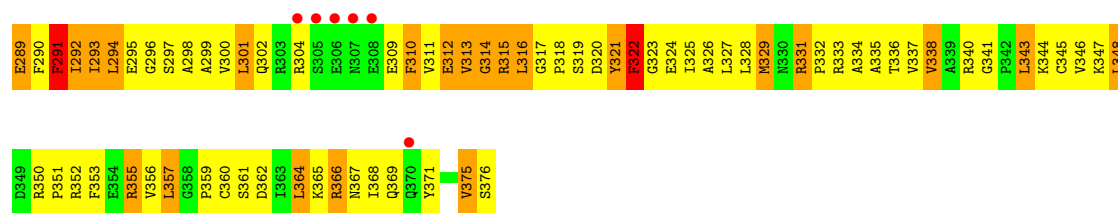
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

- Molecule 1: cAMP-dependent protein kinase type I-alpha regulatory subunit, N-terminally processed

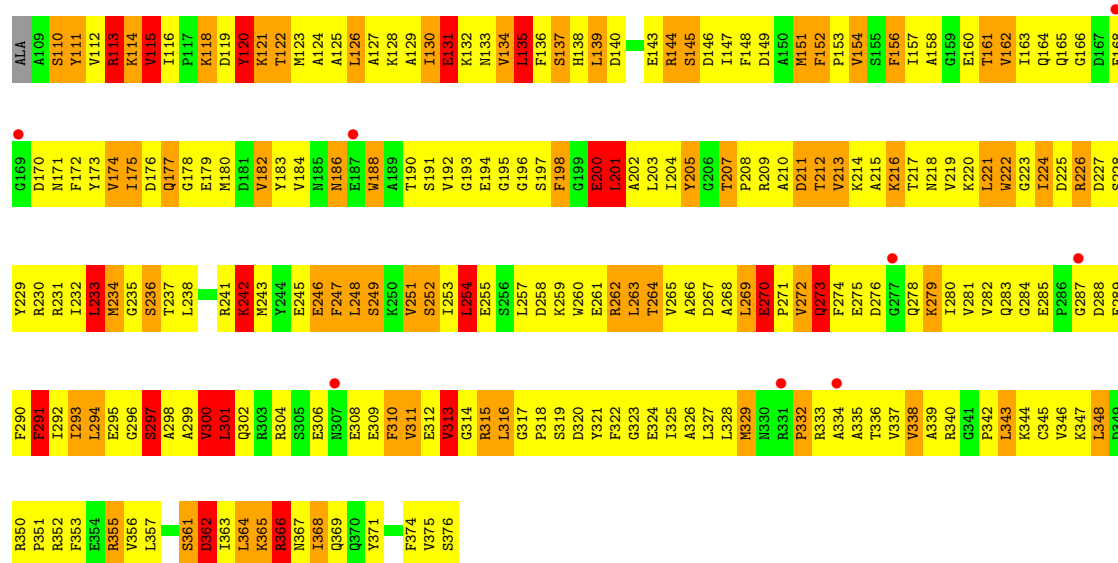
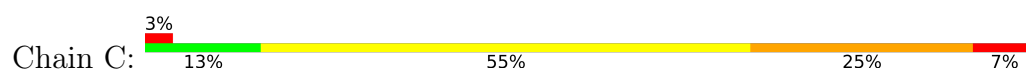


- Molecule 1: cAMP-dependent protein kinase type I-alpha regulatory subunit, N-terminally processed

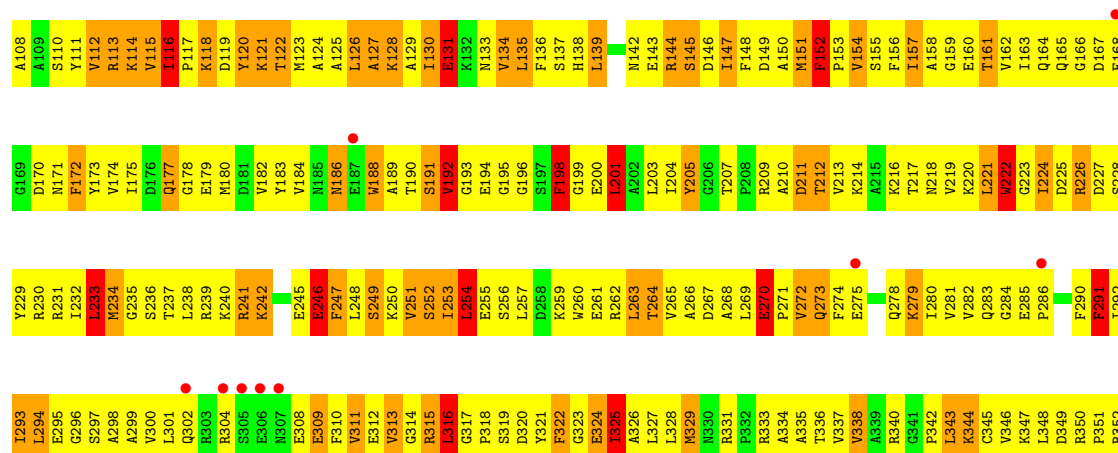
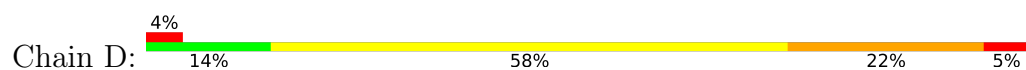


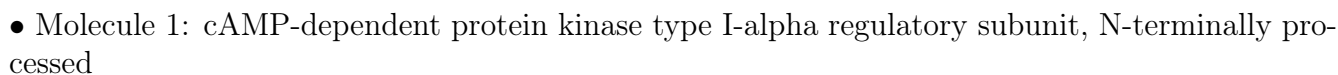


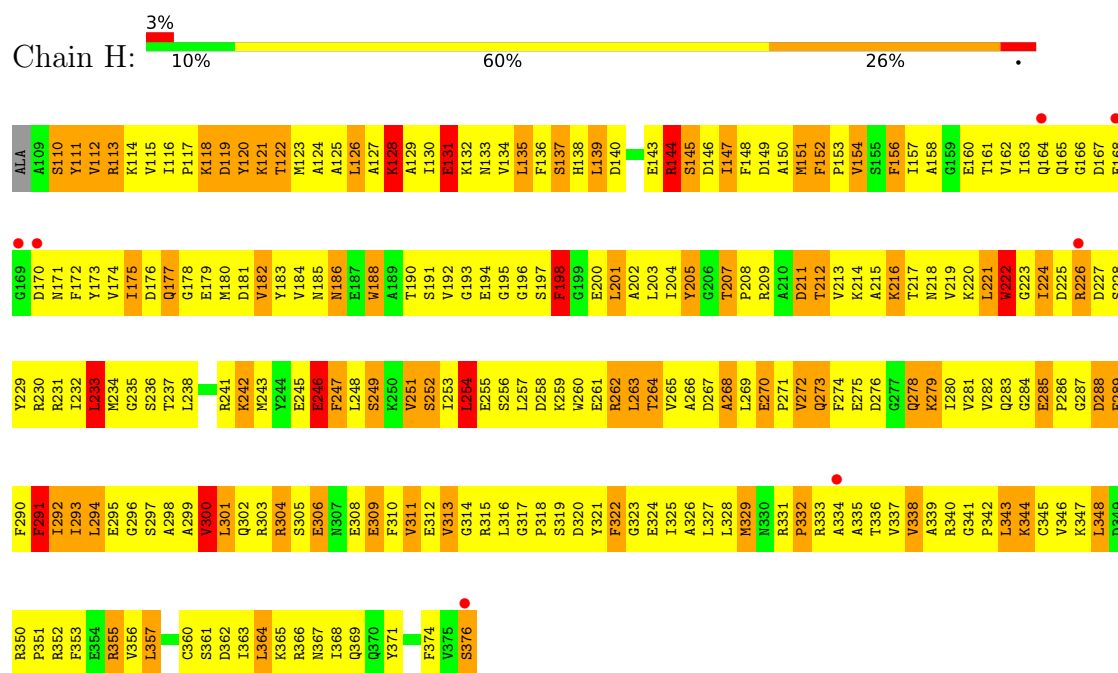
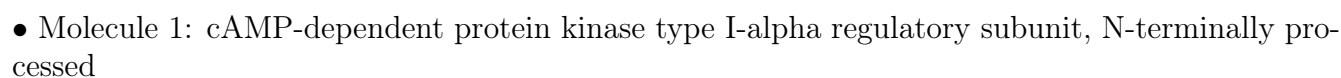
- Molecule 1: cAMP-dependent protein kinase type I-alpha regulatory subunit, N-terminally processed



- Molecule 1: cAMP-dependent protein kinase type I-alpha regulatory subunit, N-terminally processed







4 Data and refinement statistics

Property	Value	Source
Space group	H 3	Depositor
Cell constants a, b, c, α , β , γ	176.79Å 176.79Å 345.50Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	48.25 – 4.16 48.25 – 4.15	Depositor EDS
% Data completeness (in resolution range)	99.3 (48.25-4.16) 99.4 (48.25-4.15)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.69 (at 4.14Å)	Xtriage
Refinement program	PHENIX 1.7 _650	Depositor
R, R_{free}	0.221 , 0.270 0.225 , 0.273	Depositor DCC
R_{free} test set	1526 reflections (5.06%)	wwPDB-VP
Wilson B-factor (Å ²)	125.7	Xtriage
Anisotropy	0.440	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 97.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	0.418 for h,-h-k,-l	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	17138	wwPDB-VP
Average B, all atoms (Å ²)	135.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.46% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	1.35	15/2138 (0.7%)	1.60	33/2887 (1.1%)
1	B	1.31	13/2138 (0.6%)	1.55	31/2887 (1.1%)
1	C	1.27	5/2138 (0.2%)	1.61	34/2887 (1.2%)
1	D	1.33	20/2124 (0.9%)	1.44	27/2869 (0.9%)
1	E	1.12	8/2138 (0.4%)	1.39	19/2887 (0.7%)
1	F	1.26	14/2138 (0.7%)	1.48	27/2887 (0.9%)
1	G	1.60	32/2138 (1.5%)	1.82	58/2887 (2.0%)
1	H	1.27	12/2138 (0.6%)	1.56	33/2887 (1.1%)
All	All	1.32	119/17090 (0.7%)	1.56	262/23078 (1.1%)

All (119) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	131	GLU	CB-CG	-16.50	1.20	1.52
1	D	152	PHE	CE1-CZ	-12.97	1.12	1.37
1	A	112	VAL	CA-CB	12.67	1.81	1.54
1	G	289	GLU	CB-CG	-12.20	1.28	1.52
1	B	241	ARG	CZ-NH1	11.78	1.48	1.33
1	G	131	GLU	CG-CD	-11.69	1.34	1.51
1	D	152	PHE	CG-CD2	-11.31	1.21	1.38
1	D	152	PHE	CE2-CZ	-11.15	1.16	1.37
1	F	318	PRO	CG-CD	10.83	1.86	1.50
1	G	121	LYS	CB-CG	-10.71	1.23	1.52
1	D	152	PHE	CG-CD1	-10.15	1.23	1.38
1	F	285	GLU	CG-CD	-10.13	1.36	1.51
1	A	112	VAL	CB-CG2	9.80	1.73	1.52
1	G	270	GLU	CB-CG	-9.60	1.33	1.52
1	B	241	ARG	CB-CG	-9.46	1.26	1.52
1	F	285	GLU	CD-OE1	-9.18	1.15	1.25
1	H	288	ASP	CB-CG	-9.14	1.32	1.51
1	D	131	GLU	CB-CG	-8.91	1.35	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	112	VAL	CA-C	8.38	1.74	1.52
1	F	192	VAL	CA-CB	-8.28	1.37	1.54
1	A	131	GLU	CB-CG	-7.70	1.37	1.52
1	F	131	GLU	CG-CD	-7.66	1.40	1.51
1	F	131	GLU	CB-CG	-7.55	1.37	1.52
1	G	279	LYS	CD-CE	-7.35	1.32	1.51
1	G	152	PHE	CG-CD2	-7.30	1.27	1.38
1	E	318	PRO	N-CA	7.25	1.59	1.47
1	F	317	GLY	C-O	-7.25	1.12	1.23
1	B	241	ARG	CZ-NH2	7.16	1.42	1.33
1	H	278	GLN	CB-CG	-7.14	1.33	1.52
1	G	152	PHE	CG-CD1	-7.13	1.28	1.38
1	B	289	GLU	CB-CG	-7.12	1.38	1.52
1	G	285	GLU	CG-CD	-7.11	1.41	1.51
1	F	331	ARG	CB-CG	-6.94	1.33	1.52
1	E	192	VAL	CA-CB	-6.93	1.40	1.54
1	G	322	PHE	CB-CG	-6.89	1.39	1.51
1	A	372	ASN	CG-ND2	-6.86	1.15	1.32
1	A	115	VAL	CA-CB	-6.77	1.40	1.54
1	H	288	ASP	CG-OD1	-6.71	1.09	1.25
1	G	241	ARG	CB-CG	-6.67	1.34	1.52
1	D	108	ALA	CA-CB	6.64	1.66	1.52
1	D	114	LYS	N-CA	6.63	1.59	1.46
1	E	131	GLU	CB-CG	-6.57	1.39	1.52
1	G	291	PHE	CB-CG	-6.55	1.40	1.51
1	A	131	GLU	CG-CD	-6.51	1.42	1.51
1	G	285	GLU	CD-OE1	-6.48	1.18	1.25
1	G	246	GLU	CB-CG	-6.47	1.39	1.52
1	G	152	PHE	CE2-CZ	-6.46	1.25	1.37
1	G	270	GLU	CG-CD	-6.45	1.42	1.51
1	G	291	PHE	CG-CD1	-6.38	1.29	1.38
1	F	318	PRO	N-CD	-6.36	1.39	1.47
1	E	318	PRO	N-CD	6.33	1.56	1.47
1	D	115	VAL	CB-CG2	-6.25	1.39	1.52
1	G	131	GLU	N-CA	6.23	1.58	1.46
1	F	246	GLU	CB-CG	-6.09	1.40	1.52
1	H	291	PHE	CB-CG	-6.01	1.41	1.51
1	F	115	VAL	CB-CG2	6.00	1.65	1.52
1	G	278	GLN	CB-CG	-5.96	1.36	1.52
1	B	113	ARG	CA-C	5.93	1.68	1.52
1	A	188	TRP	CB-CG	5.92	1.60	1.50
1	C	291	PHE	CE2-CZ	-5.91	1.26	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	291	PHE	CD2-CE2	5.88	1.50	1.39
1	D	131	GLU	CG-CD	-5.84	1.43	1.51
1	G	152	PHE	CE1-CZ	-5.79	1.26	1.37
1	D	270	GLU	CG-CD	-5.78	1.43	1.51
1	B	154	VAL	CA-CB	-5.72	1.42	1.54
1	F	317	GLY	CA-C	5.72	1.61	1.51
1	H	322	PHE	CB-CG	-5.71	1.41	1.51
1	D	241	ARG	CG-CD	-5.71	1.37	1.51
1	H	278	GLN	CD-OE1	-5.65	1.11	1.24
1	D	291	PHE	CB-CG	-5.63	1.41	1.51
1	H	268	ALA	CA-CB	-5.61	1.40	1.52
1	H	111	TYR	CD2-CE2	-5.59	1.30	1.39
1	D	246	GLU	CB-CG	-5.58	1.41	1.52
1	G	192	VAL	CB-CG2	-5.55	1.41	1.52
1	B	115	VAL	CA-CB	-5.55	1.43	1.54
1	D	270	GLU	CB-CG	-5.55	1.41	1.52
1	H	146	ASP	CB-CG	5.51	1.63	1.51
1	E	205	TYR	CD1-CE1	5.45	1.47	1.39
1	G	267	ASP	CB-CG	5.44	1.63	1.51
1	D	222	TRP	CB-CG	-5.40	1.40	1.50
1	G	297	SER	CB-OG	-5.39	1.35	1.42
1	A	154	VAL	CA-CB	-5.38	1.43	1.54
1	H	322	PHE	CD2-CE2	-5.38	1.28	1.39
1	G	361	SER	N-CA	5.37	1.57	1.46
1	F	213	VAL	CB-CG2	-5.36	1.41	1.52
1	A	291	PHE	CB-CG	-5.33	1.42	1.51
1	G	278	GLN	CG-CD	-5.33	1.38	1.51
1	D	115	VAL	N-CA	5.32	1.56	1.46
1	G	192	VAL	CA-CB	-5.32	1.43	1.54
1	C	270	GLU	CB-CG	-5.31	1.42	1.52
1	G	290	PHE	CB-CG	-5.31	1.42	1.51
1	E	318	PRO	CG-CD	5.29	1.68	1.50
1	D	127	ALA	CA-CB	-5.28	1.41	1.52
1	C	291	PHE	CB-CG	-5.27	1.42	1.51
1	F	127	ALA	CA-CB	-5.26	1.41	1.52
1	H	278	GLN	CD-NE2	-5.26	1.19	1.32
1	A	222	TRP	CB-CG	-5.25	1.40	1.50
1	E	131	GLU	CG-CD	-5.25	1.44	1.51
1	G	331	ARG	CZ-NH2	5.24	1.39	1.33
1	B	322	PHE	CE2-CZ	5.23	1.47	1.37
1	B	291	PHE	CE1-CZ	5.19	1.47	1.37
1	D	192	VAL	CA-CB	-5.19	1.43	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	291	PHE	CG-CD1	-5.17	1.30	1.38
1	C	279	LYS	CE-NZ	-5.14	1.36	1.49
1	E	318	PRO	CA-CB	5.14	1.63	1.53
1	G	281	VAL	CB-CG2	-5.10	1.42	1.52
1	H	222	TRP	CB-CG	-5.10	1.41	1.50
1	B	267	ASP	CB-CG	5.10	1.62	1.51
1	A	113	ARG	N-CA	5.08	1.56	1.46
1	D	322	PHE	CE2-CZ	-5.08	1.27	1.37
1	C	291	PHE	CG-CD1	-5.07	1.31	1.38
1	B	205	TYR	CZ-OH	5.07	1.46	1.37
1	A	142	ASN	CG-ND2	-5.05	1.20	1.32
1	D	291	PHE	CG-CD1	-5.04	1.31	1.38
1	A	279	LYS	CB-CG	-5.04	1.39	1.52
1	A	354	GLU	CG-CD	-5.03	1.44	1.51
1	G	141	ASP	C-N	5.02	1.45	1.34
1	G	213	VAL	CB-CG1	-5.02	1.42	1.52
1	G	278	GLN	CD-NE2	-5.00	1.20	1.32

All (262) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	288	ASP	CB-CG-OD1	-22.79	97.79	118.30
1	A	357	LEU	CB-CG-CD1	-21.79	73.97	111.00
1	H	288	ASP	CB-CG-OD2	21.11	137.30	118.30
1	C	279	LYS	CD-CE-NZ	-19.95	65.81	111.70
1	G	121	LYS	CA-CB-CG	17.60	152.12	113.40
1	C	242	LYS	CD-CE-NZ	-14.44	78.50	111.70
1	B	201	LEU	CA-CB-CG	-12.67	86.17	115.30
1	G	121	LYS	CB-CA-C	-12.20	86.00	110.40
1	A	316	LEU	CA-CB-CG	-11.76	88.25	115.30
1	C	254	LEU	CA-CB-CG	-11.64	88.54	115.30
1	H	254	LEU	CA-CB-CG	-11.44	88.98	115.30
1	B	254	LEU	CA-CB-CG	-11.33	89.23	115.30
1	C	115	VAL	CB-CA-C	-11.33	89.87	111.40
1	G	254	LEU	CA-CB-CG	-11.07	89.84	115.30
1	A	254	LEU	CA-CB-CG	-10.81	90.44	115.30
1	B	115	VAL	CB-CA-C	-10.75	90.98	111.40
1	F	285	GLU	CG-CD-OE1	-10.64	97.02	118.30
1	G	357	LEU	CB-CG-CD1	-10.55	93.06	111.00
1	E	254	LEU	CA-CB-CG	-10.39	91.40	115.30
1	F	130	ILE	CG1-CB-CG2	-10.26	88.83	111.40
1	B	241	ARG	NE-CZ-NH2	-9.96	115.32	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	201	LEU	CA-CB-CG	-9.90	92.52	115.30
1	C	366	ARG	NE-CZ-NH2	9.73	125.17	120.30
1	A	115	VAL	CB-CA-C	-9.73	92.92	111.40
1	B	279	LYS	N-CA-CB	-9.72	93.10	110.60
1	C	366	ARG	NE-CZ-NH1	-9.64	115.48	120.30
1	F	285	GLU	CG-CD-OE2	9.46	137.21	118.30
1	H	201	LEU	CA-CB-CG	-9.34	93.82	115.30
1	A	279	LYS	CG-CD-CE	-9.18	84.35	111.90
1	F	201	LEU	CA-CB-CG	-9.06	94.46	115.30
1	F	254	LEU	CA-CB-CG	-9.04	94.51	115.30
1	G	221	LEU	CB-CG-CD2	-8.96	95.77	111.00
1	G	289	GLU	CA-CB-CG	8.96	133.12	113.40
1	H	278	GLN	CB-CA-C	-8.85	92.69	110.40
1	G	131	GLU	CA-CB-CG	8.81	132.78	113.40
1	G	316	LEU	CB-CG-CD1	-8.61	96.36	111.00
1	B	279	LYS	CD-CE-NZ	-8.57	91.98	111.70
1	F	331	ARG	CB-CA-C	-8.44	93.53	110.40
1	G	201	LEU	CA-CB-CG	-8.26	96.31	115.30
1	C	201	LEU	CA-CB-CG	-8.24	96.35	115.30
1	D	246	GLU	CB-CA-C	-8.22	93.95	110.40
1	B	279	LYS	CB-CG-CD	-8.17	90.36	111.60
1	A	121	LYS	CD-CE-NZ	8.14	130.43	111.70
1	D	113	ARG	NE-CZ-NH2	-8.13	116.24	120.30
1	E	201	LEU	CA-CB-CG	-8.07	96.75	115.30
1	H	128	LYS	CD-CE-NZ	8.00	130.10	111.70
1	G	173	TYR	CB-CG-CD2	-7.92	116.25	121.00
1	D	221	LEU	CB-CG-CD2	-7.91	97.56	111.00
1	F	355	ARG	NE-CZ-NH1	-7.89	116.36	120.30
1	A	279	LYS	CB-CG-CD	7.86	132.03	111.60
1	D	263	LEU	CA-CB-CG	-7.78	97.40	115.30
1	D	263	LEU	CB-CG-CD2	-7.77	97.79	111.00
1	E	366	ARG	NE-CZ-NH2	7.73	124.17	120.30
1	G	173	TYR	CB-CG-CD1	7.72	125.63	121.00
1	E	317	GLY	C-N-CD	-7.63	103.81	120.60
1	F	110	SER	N-CA-C	-7.59	90.52	111.00
1	H	294	LEU	CB-CG-CD1	-7.58	98.12	111.00
1	B	241	ARG	NH1-CZ-NH2	7.54	127.70	119.40
1	E	366	ARG	NE-CZ-NH1	-7.53	116.54	120.30
1	C	114	LYS	CD-CE-NZ	7.51	128.99	111.70
1	B	263	LEU	CA-CB-CG	-7.51	98.03	115.30
1	C	200	GLU	CA-CB-CG	7.48	129.86	113.40
1	F	146	ASP	CB-CG-OD2	7.43	124.99	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	216	LYS	N-CA-C	-7.38	91.07	111.00
1	D	270	GLU	CB-CA-C	7.30	125.00	110.40
1	G	366	ARG	NE-CZ-NH1	-7.21	116.69	120.30
1	F	263	LEU	CA-CB-CG	-7.21	98.73	115.30
1	F	365	LYS	CD-CE-NZ	-7.20	95.14	111.70
1	A	203	LEU	CB-CG-CD1	-7.19	98.77	111.00
1	B	355	ARG	NE-CZ-NH1	-7.17	116.72	120.30
1	B	288	ASP	CB-CG-OD1	-7.16	111.85	118.30
1	G	344	LYS	CD-CE-NZ	7.16	128.17	111.70
1	G	244	TYR	CB-CG-CD1	-7.16	116.71	121.00
1	E	118	LYS	N-CA-C	7.09	130.13	111.00
1	B	203	LEU	CB-CG-CD1	-7.06	99.00	111.00
1	D	343	LEU	CA-CB-CG	-7.06	99.06	115.30
1	G	288	ASP	CB-CG-OD1	-7.04	111.97	118.30
1	G	361	SER	N-CA-CB	-7.02	99.97	110.50
1	A	113	ARG	N-CA-C	7.00	129.91	111.00
1	G	192	VAL	CG1-CB-CG2	6.97	122.06	110.90
1	C	300	VAL	CB-CA-C	6.96	124.62	111.40
1	G	321	TYR	CB-CG-CD1	-6.91	116.85	121.00
1	D	201	LEU	CA-CB-CG	-6.90	99.42	115.30
1	C	175	ILE	CG1-CB-CG2	-6.87	96.29	111.40
1	H	118	LYS	N-CA-C	6.85	129.48	111.00
1	C	118	LYS	N-CA-C	6.82	129.41	111.00
1	G	270	GLU	CA-CB-CG	6.80	128.36	113.40
1	F	114	LYS	CD-CE-NZ	6.80	127.33	111.70
1	G	140	ASP	N-CA-CB	6.78	122.81	110.60
1	C	273	GLN	CB-CA-C	-6.78	96.84	110.40
1	E	357	LEU	CB-CG-CD1	-6.78	99.48	111.00
1	E	355	ARG	NE-CZ-NH1	-6.77	116.91	120.30
1	A	112	VAL	CA-CB-CG2	6.74	121.01	110.90
1	G	288	ASP	CB-CG-OD2	6.73	124.36	118.30
1	A	314	GLY	N-CA-C	6.70	129.84	113.10
1	B	241	ARG	NE-CZ-NH1	-6.69	116.95	120.30
1	G	115	VAL	N-CA-C	6.69	129.07	111.00
1	H	221	LEU	CA-CB-CG	-6.59	100.13	115.30
1	E	343	LEU	CA-CB-CG	-6.58	100.16	115.30
1	A	343	LEU	CA-CB-CG	-6.58	100.17	115.30
1	G	201	LEU	CB-CG-CD2	-6.52	99.92	111.00
1	D	115	VAL	CB-CA-C	-6.48	99.08	111.40
1	B	241	ARG	N-CA-CB	-6.48	98.93	110.60
1	D	114	LYS	N-CA-C	6.45	128.42	111.00
1	A	263	LEU	CA-CB-CG	-6.45	100.47	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	115	VAL	CB-CA-C	-6.44	99.17	111.40
1	H	343	LEU	CB-CA-C	6.44	122.43	110.20
1	C	233	LEU	CA-CB-CG	-6.43	100.51	115.30
1	G	279	LYS	CD-CE-NZ	-6.42	96.92	111.70
1	B	357	LEU	CB-CG-CD2	6.42	121.92	111.00
1	A	317	GLY	N-CA-C	-6.42	97.06	113.10
1	F	343	LEU	CA-CB-CG	-6.40	100.59	115.30
1	G	141	ASP	CB-CG-OD1	-6.39	112.55	118.30
1	G	121	LYS	CB-CG-CD	-6.35	95.08	111.60
1	B	192	VAL	CB-CA-C	-6.35	99.33	111.40
1	A	172	PHE	N-CA-C	-6.35	93.87	111.00
1	E	115	VAL	CB-CA-C	-6.30	99.42	111.40
1	B	170	ASP	CB-CG-OD1	-6.27	112.66	118.30
1	D	357	LEU	CB-CG-CD1	-6.25	100.37	111.00
1	F	331	ARG	CA-CB-CG	6.24	127.12	113.40
1	A	115	VAL	CG1-CB-CG2	6.24	120.88	110.90
1	E	221	LEU	CA-CB-CG	-6.23	100.97	115.30
1	C	242	LYS	CA-CB-CG	-6.20	99.77	113.40
1	D	113	ARG	CB-CA-C	-6.17	98.06	110.40
1	G	131	GLU	CB-CA-C	-6.17	98.06	110.40
1	G	366	ARG	NE-CZ-NH2	6.14	123.37	120.30
1	D	115	VAL	N-CA-C	6.11	127.51	111.00
1	A	118	LYS	N-CA-C	6.11	127.49	111.00
1	C	297	SER	CB-CA-C	6.11	121.70	110.10
1	G	355	ARG	NE-CZ-NH1	-6.10	117.25	120.30
1	H	201	LEU	CB-CG-CD2	-6.10	100.63	111.00
1	B	221	LEU	CA-CB-CG	-6.09	101.29	115.30
1	H	263	LEU	CA-CB-CG	-6.07	101.35	115.30
1	D	152	PHE	CB-CG-CD2	6.06	125.04	120.80
1	G	267	ASP	CB-CG-OD1	6.06	123.75	118.30
1	F	118	LYS	N-CA-C	6.03	127.29	111.00
1	G	120	TYR	C-N-CA	-6.03	106.64	121.70
1	E	216	LYS	N-CA-C	-6.01	94.78	111.00
1	B	238	LEU	CA-CB-CG	-6.00	101.49	115.30
1	G	291	PHE	CB-CG-CD1	-6.00	116.60	120.80
1	G	239	ARG	CB-CG-CD	-5.97	96.08	111.60
1	G	265	VAL	CG1-CB-CG2	5.96	120.43	110.90
1	A	221	LEU	CA-CB-CG	-5.95	101.61	115.30
1	C	135	LEU	CB-CG-CD1	5.95	121.12	111.00
1	F	239	ARG	CG-CD-NE	5.94	124.28	111.80
1	H	300	VAL	CB-CA-C	5.94	122.69	111.40
1	H	289	GLU	CB-CA-C	-5.91	98.59	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	246	GLU	N-CA-CB	5.89	121.21	110.60
1	H	175	ILE	CG1-CB-CG2	-5.89	98.44	111.40
1	G	131	GLU	OE1-CD-OE2	5.88	130.36	123.30
1	H	288	ASP	N-CA-CB	-5.87	100.03	110.60
1	A	192	VAL	CB-CA-C	-5.84	100.30	111.40
1	B	172	PHE	N-CA-C	-5.84	95.23	111.00
1	G	113	ARG	N-CA-C	5.82	126.71	111.00
1	C	174	VAL	N-CA-C	-5.82	95.29	111.00
1	F	357	LEU	CB-CG-CD1	-5.80	101.14	111.00
1	F	114	LYS	CA-CB-CG	-5.79	100.67	113.40
1	C	343	LEU	CB-CA-C	5.78	121.19	110.20
1	G	244	TYR	CB-CG-CD2	5.78	124.47	121.00
1	E	344	LYS	CD-CE-NZ	5.76	124.95	111.70
1	D	254	LEU	CB-CG-CD2	5.75	120.77	111.00
1	B	239	ARG	CG-CD-NE	5.75	123.87	111.80
1	G	279	LYS	N-CA-CB	-5.74	100.28	110.60
1	C	270	GLU	N-CA-CB	5.72	120.90	110.60
1	B	288	ASP	CB-CG-OD2	5.71	123.44	118.30
1	G	131	GLU	CB-CG-CD	-5.70	98.82	114.20
1	D	118	LYS	N-CA-C	5.69	126.37	111.00
1	B	118	LYS	N-CA-C	5.69	126.35	111.00
1	B	343	LEU	CA-CB-CG	-5.68	102.24	115.30
1	E	263	LEU	CA-CB-CG	-5.67	102.25	115.30
1	C	348	LEU	N-CA-C	-5.67	95.69	111.00
1	D	131	GLU	N-CA-C	5.67	126.31	111.00
1	D	116	ILE	C-N-CD	-5.67	108.13	120.60
1	C	362	ASP	N-CA-C	5.65	126.27	111.00
1	G	114	LYS	CD-CE-NZ	5.65	124.70	111.70
1	G	357	LEU	CB-CG-CD2	5.65	120.60	111.00
1	F	114	LYS	CB-CA-C	-5.64	99.12	110.40
1	G	343	LEU	CA-CB-CG	-5.62	102.38	115.30
1	C	270	GLU	CA-CB-CG	5.61	125.73	113.40
1	B	314	GLY	N-CA-C	5.60	127.11	113.10
1	B	115	VAL	CG1-CB-CG2	5.60	119.86	110.90
1	F	263	LEU	CB-CG-CD2	-5.60	101.48	111.00
1	H	111	TYR	CB-CG-CD1	5.58	124.35	121.00
1	E	130	ILE	CG1-CB-CG2	-5.58	99.13	111.40
1	E	181	ASP	CB-CG-OD2	5.57	123.32	118.30
1	G	141	ASP	CB-CG-OD2	5.57	123.31	118.30
1	G	126	LEU	CB-CG-CD1	5.57	120.46	111.00
1	A	238	LEU	CB-CG-CD1	5.56	120.45	111.00
1	D	233	LEU	CA-CB-CG	-5.56	102.52	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	285	GLU	CB-CG-CD	-5.55	99.22	114.20
1	G	274	PHE	CB-CG-CD2	-5.54	116.92	120.80
1	G	200	GLU	CA-CB-CG	5.53	125.58	113.40
1	G	239	ARG	CG-CD-NE	5.53	123.41	111.80
1	A	219	VAL	CB-CA-C	-5.53	100.90	111.40
1	G	348	LEU	N-CA-C	-5.52	96.10	111.00
1	C	120	TYR	CB-CA-C	-5.51	99.38	110.40
1	C	355	ARG	NE-CZ-NH1	-5.48	117.56	120.30
1	C	366	ARG	N-CA-CB	-5.48	100.74	110.60
1	G	120	TYR	CB-CG-CD1	-5.48	117.72	121.00
1	A	131	GLU	N-CA-C	5.45	125.71	111.00
1	A	279	LYS	CD-CE-NZ	-5.45	99.17	111.70
1	H	147	ILE	CB-CG1-CD1	-5.43	98.69	113.90
1	D	316	LEU	CB-CG-CD1	5.42	120.22	111.00
1	C	301	LEU	CA-CB-CG	5.40	127.73	115.30
1	E	270	GLU	N-CA-CB	5.38	120.28	110.60
1	G	190	THR	N-CA-CB	5.37	120.50	110.30
1	G	111	TYR	CB-CG-CD1	-5.37	117.78	121.00
1	D	113	ARG	NE-CZ-NH1	5.36	122.98	120.30
1	G	203	LEU	CB-CG-CD1	-5.35	101.91	111.00
1	C	216	LYS	N-CA-C	-5.35	96.56	111.00
1	H	355	ARG	NE-CZ-NH1	-5.35	117.63	120.30
1	D	172	PHE	N-CA-C	-5.34	96.57	111.00
1	H	344	LYS	CB-CA-C	-5.33	99.74	110.40
1	G	140	ASP	N-CA-C	-5.33	96.62	111.00
1	H	300	VAL	N-CA-C	-5.32	96.62	111.00
1	A	112	VAL	O-C-N	-5.32	114.19	122.70
1	F	216	LYS	CD-CE-NZ	5.31	123.92	111.70
1	D	198	PHE	CB-CG-CD1	-5.30	117.09	120.80
1	A	126	LEU	CB-CG-CD1	5.30	120.01	111.00
1	G	118	LYS	N-CA-C	5.29	125.28	111.00
1	A	110	SER	N-CA-C	5.29	125.28	111.00
1	D	152	PHE	CD1-CG-CD2	-5.28	111.43	118.30
1	A	112	VAL	CB-CA-C	5.28	121.42	111.40
1	H	357	LEU	CB-CG-CD1	-5.25	102.08	111.00
1	E	238	LEU	CA-CB-CG	-5.24	103.25	115.30
1	H	111	TYR	CB-CG-CD2	-5.23	117.86	121.00
1	B	170	ASP	CB-CG-OD2	5.22	123.00	118.30
1	D	246	GLU	CA-CB-CG	5.22	124.88	113.40
1	A	357	LEU	CB-CA-C	5.20	120.08	110.20
1	A	238	LEU	CA-CB-CG	-5.19	103.36	115.30
1	C	182	VAL	CB-CA-C	-5.19	101.53	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	267	ASP	CB-CG-OD1	5.19	122.97	118.30
1	G	123	MET	CB-CG-SD	-5.18	96.87	112.40
1	H	246	GLU	CB-CA-C	-5.16	100.07	110.40
1	C	221	LEU	CA-CB-CG	-5.16	103.43	115.30
1	D	170	ASP	CB-CG-OD1	-5.15	113.67	118.30
1	C	310	PHE	N-CA-C	5.15	124.90	111.00
1	H	357	LEU	CA-CB-CG	-5.14	103.47	115.30
1	H	348	LEU	N-CA-C	-5.14	97.12	111.00
1	A	113	ARG	NE-CZ-NH1	5.12	122.86	120.30
1	H	131	GLU	CB-CA-C	-5.12	100.16	110.40
1	B	126	LEU	CB-CG-CD1	5.09	119.66	111.00
1	H	233	LEU	CA-CB-CG	-5.09	103.59	115.30
1	B	138	HIS	N-CA-C	5.08	124.73	111.00
1	H	111	TYR	OH-CZ-CE2	-5.08	106.39	120.10
1	F	114	LYS	N-CA-C	5.08	124.71	111.00
1	A	333	ARG	NE-CZ-NH2	-5.07	117.76	120.30
1	D	130	ILE	CG1-CB-CG2	-5.07	100.25	111.40
1	H	182	VAL	CB-CA-C	-5.07	101.77	111.40
1	H	216	LYS	N-CA-C	-5.06	97.33	111.00
1	C	113	ARG	N-CA-C	5.06	124.66	111.00
1	B	239	ARG	CB-CG-CD	-5.06	98.45	111.60
1	C	313	VAL	CB-CA-C	-5.05	101.81	111.40
1	F	344	LYS	CD-CE-NZ	5.04	123.30	111.70
1	A	355	ARG	NE-CZ-NH2	-5.04	117.78	120.30
1	C	270	GLU	CB-CA-C	-5.04	100.33	110.40
1	H	144	ARG	NE-CZ-NH1	5.03	122.81	120.30
1	H	198	PHE	CB-CG-CD1	-5.03	117.28	120.80
1	F	238	LEU	CA-CB-CG	-5.02	103.75	115.30
1	E	201	LEU	CB-CG-CD1	5.02	119.53	111.00
1	G	253	ILE	CG1-CB-CG2	-5.02	100.36	111.40
1	F	111	TYR	CB-CA-C	-5.00	100.40	110.40

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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	2100	0	2069	737	0
1	B	2100	0	2071	708	0
1	C	2100	0	2069	789	0
1	D	2086	0	2060	702	0
1	E	2100	0	2071	683	0
1	F	2100	0	2071	684	0
1	G	2100	0	2071	605	0
1	H	2100	0	2071	748	0
2	A	44	0	22	40	0
2	B	44	0	22	55	0
2	C	44	0	22	36	0
2	D	44	0	22	37	0
2	E	44	0	22	35	0
2	F	44	0	22	29	0
2	G	44	0	22	30	0
2	H	44	0	22	38	0
All	All	17138	0	16729	5432	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 160.

All (5432) 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)
1:A:112:VAL:CA	1:A:112:VAL:CB	1.81	1.53
1:A:112:VAL:CA	1:A:112:VAL:C	1.74	1.50
2:C:402:CMP:H2	2:C:402:CMP:C2	0.97	1.50
2:A:401:CMP:H2	2:A:401:CMP:C2	0.97	1.49
2:A:402:CMP:H2	2:A:402:CMP:C2	0.97	1.49
2:E:401:CMP:H2	2:E:401:CMP:C2	0.97	1.49
2:G:402:CMP:C2	2:G:402:CMP:H2	0.97	1.49
2:H:402:CMP:H2	2:H:402:CMP:C2	0.97	1.49
2:D:401:CMP:H2	2:D:401:CMP:C2	0.97	1.48
2:H:401:CMP:H2	2:H:401:CMP:C2	0.97	1.48
2:D:402:CMP:H2	2:D:402:CMP:C2	0.97	1.48
2:B:401:CMP:H2	2:B:401:CMP:C2	0.97	1.48
2:C:401:CMP:H2	2:C:401:CMP:C2	0.97	1.48
2:B:402:CMP:H2	2:B:402:CMP:C2	0.97	1.48
2:F:401:CMP:H2	2:F:401:CMP:C2	0.97	1.48
2:E:402:CMP:H2	2:E:402:CMP:C2	0.97	1.48
2:G:401:CMP:C2	2:G:401:CMP:H2	0.97	1.47
2:F:402:CMP:H2	2:F:402:CMP:C2	0.97	1.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:273:GLN:HE21	1:G:273:GLN:N	1.06	1.42
1:C:273:GLN:HE21	1:C:273:GLN:N	1.14	1.40
1:F:318:PRO:CG	1:F:318:PRO:CD	1.86	1.36
1:A:165:GLN:N	1:A:212:THR:HG23	1.41	1.30
1:B:165:GLN:N	1:B:212:THR:HG23	1.48	1.28
1:C:156:PHE:CE2	1:C:162:VAL:HG12	1.67	1.28
1:H:294:LEU:HD12	1:H:295:GLU:N	1.46	1.28
1:C:280:ILE:CD1	1:C:322:PHE:HE2	1.47	1.27
1:H:302:GLN:HE22	1:H:374:PHE:CB	1.48	1.26
1:D:165:GLN:N	1:D:212:THR:HG23	1.52	1.25
1:G:273:GLN:N	1:G:273:GLN:NE2	1.80	1.25
1:H:175:ILE:O	1:H:175:ILE:HD12	1.29	1.24
1:E:111:TYR:CE2	1:H:111:TYR:HE2	1.56	1.24
1:B:313:VAL:HG21	2:B:402:CMP:N6	1.50	1.24
1:A:175:ILE:HD12	1:A:175:ILE:O	1.37	1.23
1:E:273:GLN:N	1:E:273:GLN:HE21	1.33	1.23
1:B:175:ILE:HD12	1:B:175:ILE:O	1.36	1.22
1:H:280:ILE:CD1	1:H:322:PHE:HE2	1.51	1.22
1:F:157:ILE:HD12	1:H:243:MET:CE	1.69	1.21
1:H:284:GLY:O	1:H:332:PRO:HB3	1.41	1.21
1:A:273:GLN:N	1:A:273:GLN:HE21	1.35	1.20
1:G:165:GLN:N	1:G:212:THR:HG23	1.56	1.20
1:E:182:VAL:HG22	1:E:190:THR:O	1.39	1.20
1:H:156:PHE:CE2	1:H:162:VAL:HG12	1.76	1.20
1:F:175:ILE:HD12	1:F:175:ILE:O	1.42	1.20
1:C:280:ILE:HD13	1:C:322:PHE:CE2	1.77	1.19
1:D:156:PHE:CD2	1:D:162:VAL:HG12	1.76	1.19
1:E:156:PHE:CD2	1:E:162:VAL:HG12	1.77	1.19
1:A:165:GLN:H	1:A:212:THR:CG2	1.55	1.19
1:G:265:VAL:HG12	1:G:269:LEU:HD11	1.20	1.19
1:E:165:GLN:N	1:E:212:THR:HG23	1.55	1.18
1:F:182:VAL:HG22	1:F:190:THR:O	1.39	1.18
1:C:196:GLY:HA2	1:C:355:ARG:NH2	1.57	1.18
1:G:273:GLN:NE2	1:G:273:GLN:H	1.35	1.18
1:H:156:PHE:CD2	1:H:162:VAL:HG12	1.78	1.18
1:B:273:GLN:N	1:B:273:GLN:NE2	1.92	1.18
1:C:243:MET:CE	1:E:157:ILE:HD12	1.73	1.18
1:D:126:LEU:HD12	1:D:126:LEU:O	1.42	1.18
1:G:293:ILE:HG13	1:G:345:CYS:SG	1.83	1.18
1:B:273:GLN:NE2	1:B:273:GLN:H	1.40	1.17
1:E:196:GLY:HA2	1:E:355:ARG:NH2	1.56	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:175:ILE:HD12	1:G:175:ILE:O	1.40	1.17
1:C:178:GLY:HA3	1:C:219:VAL:HG12	1.22	1.17
1:E:265:VAL:CG1	1:E:269:LEU:HD21	1.73	1.17
1:C:249:SER:CA	1:C:262:ARG:HH22	1.58	1.17
1:D:175:ILE:HD12	1:D:175:ILE:O	1.42	1.17
1:E:112:VAL:HG12	1:E:231:ARG:CZ	1.72	1.17
1:E:156:PHE:CE2	1:E:162:VAL:HG12	1.79	1.17
1:C:279:LYS:HE2	1:C:336:THR:HG23	1.23	1.17
1:E:300:VAL:HG21	2:E:402:CMP:H8	1.25	1.17
1:C:273:GLN:N	1:C:273:GLN:NE2	1.93	1.16
1:A:182:VAL:HG22	1:A:190:THR:O	1.43	1.16
1:C:284:GLY:C	1:C:332:PRO:HB3	1.65	1.16
1:C:284:GLY:O	1:C:332:PRO:HB3	1.45	1.16
1:G:293:ILE:HD11	1:G:343:LEU:CD1	1.76	1.16
1:A:301:LEU:HB3	1:A:310:PHE:HE2	1.02	1.16
1:C:157:ILE:HD12	1:C:157:ILE:O	1.46	1.16
1:F:251:VAL:CG1	1:F:254:LEU:HD21	1.75	1.16
1:C:265:VAL:O	1:C:269:LEU:HG	1.44	1.16
1:G:265:VAL:HG13	1:G:269:LEU:HD21	1.20	1.15
1:D:279:LYS:HB2	1:D:279:LYS:NZ	1.33	1.15
1:D:353:PHE:CE1	1:D:357:LEU:HD22	1.82	1.15
1:D:251:VAL:HG13	1:D:254:LEU:HD11	1.16	1.15
1:C:113:ARG:HG3	1:F:112:VAL:HG11	1.28	1.14
1:F:165:GLN:N	1:F:212:THR:HG23	1.60	1.14
1:C:182:VAL:HG22	1:C:190:THR:O	1.47	1.14
1:G:265:VAL:O	1:G:269:LEU:HG	1.42	1.14
1:E:111:TYR:HE2	1:H:112:VAL:HG12	1.10	1.14
1:H:272:VAL:HA	1:H:273:GLN:NE2	1.63	1.14
1:D:301:LEU:HD21	1:D:310:PHE:HB3	1.17	1.14
1:H:111:TYR:CD2	1:H:112:VAL:N	2.14	1.14
1:A:115:VAL:CG2	1:D:112:VAL:HG23	1.79	1.13
1:C:113:ARG:HG3	1:F:112:VAL:CG1	1.79	1.13
1:C:266:ALA:HA	1:C:269:LEU:HD12	1.13	1.12
1:F:156:PHE:CD2	1:F:162:VAL:HG12	1.84	1.13
1:A:178:GLY:HA3	1:A:219:VAL:HG12	1.24	1.12
1:A:230:ARG:NH1	1:A:234:MET:HE1	1.63	1.12
1:E:175:ILE:HD12	1:E:175:ILE:O	1.47	1.12
1:C:175:ILE:HD12	1:C:175:ILE:O	1.48	1.12
1:C:285:GLU:O	1:C:332:PRO:HA	1.49	1.12
1:C:294:LEU:HD13	1:C:344:LYS:O	1.44	1.12
1:C:356:VAL:HG23	1:C:357:LEU:HD13	1.29	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:259:LYS:O	1:D:262:ARG:HG2	1.45	1.12
1:C:272:VAL:C	1:C:273:GLN:HE21	1.52	1.12
1:B:158:ALA:HB2	1:B:217:THR:C	1.70	1.11
1:D:165:GLN:H	1:D:212:THR:CG2	1.63	1.11
1:G:294:LEU:HD12	1:G:294:LEU:N	1.62	1.11
1:B:269:LEU:HB3	1:B:346:VAL:CG2	1.81	1.11
1:C:294:LEU:HD11	1:C:345:CYS:HA	1.21	1.11
1:C:294:LEU:HD12	1:C:294:LEU:N	1.61	1.11
1:F:162:VAL:HG23	1:F:163:ILE:HG13	1.19	1.11
1:C:115:VAL:HG23	1:F:110:SER:HB2	1.29	1.11
1:D:251:VAL:CG1	1:D:254:LEU:HD11	1.81	1.11
1:E:279:LYS:HB2	1:E:279:LYS:NZ	1.45	1.11
1:C:280:ILE:HD13	1:C:322:PHE:HE2	1.08	1.11
1:H:165:GLN:N	1:H:212:THR:HG23	1.65	1.11
1:A:325:ILE:HD11	2:A:402:CMP:O2P	1.49	1.10
1:B:294:LEU:HD11	1:B:345:CYS:HA	1.30	1.10
1:D:294:LEU:HD11	1:D:345:CYS:HA	1.28	1.10
1:D:293:ILE:HD11	1:D:343:LEU:HD11	1.21	1.10
1:D:156:PHE:CE2	1:D:162:VAL:HG12	1.86	1.10
1:F:279:LYS:HB2	1:F:279:LYS:HZ3	1.11	1.10
1:B:165:GLN:H	1:B:212:THR:CG2	1.63	1.10
1:C:165:GLN:N	1:C:212:THR:HG23	1.66	1.10
1:D:294:LEU:HD12	1:D:294:LEU:H	1.12	1.10
1:F:156:PHE:CE2	1:F:162:VAL:HG12	1.86	1.10
1:G:266:ALA:HA	1:G:269:LEU:HD12	1.14	1.10
1:E:265:VAL:O	1:E:269:LEU:HG	1.50	1.10
1:G:182:VAL:HG22	1:G:190:THR:O	1.51	1.10
1:C:249:SER:HA	1:C:262:ARG:HH22	1.11	1.09
1:F:196:GLY:HA2	1:F:355:ARG:NH2	1.67	1.09
1:G:265:VAL:CG1	1:G:269:LEU:HD21	1.82	1.09
1:A:113:ARG:NE	1:D:113:ARG:HB3	1.66	1.09
1:C:274:PHE:HD2	1:C:343:LEU:HD23	1.12	1.09
1:D:233:LEU:H	1:D:233:LEU:HD12	1.15	1.09
1:D:324:GLU:OE2	1:D:371:TYR:HE2	1.35	1.09
1:G:126:LEU:HD12	1:G:126:LEU:O	1.49	1.09
1:G:294:LEU:HD11	1:G:345:CYS:HA	1.33	1.09
1:E:162:VAL:HG23	1:E:163:ILE:HG13	1.32	1.09
1:F:273:GLN:N	1:F:273:GLN:HE21	1.50	1.09
1:E:324:GLU:O	1:E:328:LEU:HD12	1.52	1.09
1:H:182:VAL:HG22	1:H:190:THR:O	1.51	1.09
1:A:115:VAL:HG21	1:D:112:VAL:HG23	1.24	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:294:LEU:HD13	1:B:344:LYS:O	1.51	1.09
1:F:280:ILE:CD1	1:F:322:PHE:HE2	1.65	1.09
1:A:156:PHE:CD2	1:A:162:VAL:HG12	1.88	1.08
1:B:324:GLU:O	1:B:328:LEU:HD12	1.51	1.08
1:D:279:LYS:HZ3	1:D:279:LYS:CB	1.65	1.08
1:D:356:VAL:HG23	1:D:357:LEU:HD12	1.30	1.08
1:D:365:LYS:O	1:D:368:ILE:HG13	1.53	1.08
1:F:114:LYS:HZ2	1:F:115:VAL:HG22	1.07	1.08
1:F:229:TYR:CD1	1:F:233:LEU:HD13	1.88	1.08
1:H:260:TRP:HE1	2:H:401:CMP:H2'	1.13	1.08
1:A:190:THR:HG22	1:A:191:SER:H	1.15	1.08
1:E:251:VAL:HG13	1:E:254:LEU:HD21	1.28	1.08
1:B:229:TYR:CD1	1:B:233:LEU:HD13	1.88	1.08
1:D:182:VAL:HG22	1:D:190:THR:O	1.51	1.08
1:D:253:ILE:HG13	1:D:254:LEU:HD13	1.35	1.08
1:E:293:ILE:HD13	1:E:317:GLY:O	1.54	1.08
1:G:365:LYS:O	1:G:368:ILE:HG13	1.54	1.08
1:A:116:ILE:O	1:A:118:LYS:HG3	1.50	1.08
1:B:161:THR:HA	1:B:214:LYS:HD2	1.30	1.08
1:G:165:GLN:H	1:G:212:THR:CG2	1.67	1.08
1:H:178:GLY:HA3	1:H:219:VAL:HG12	1.31	1.08
1:A:269:LEU:HD22	1:A:346:VAL:HG21	1.36	1.07
1:E:112:VAL:HG12	1:E:231:ARG:NE	1.68	1.07
1:E:294:LEU:N	1:E:294:LEU:HD12	1.57	1.07
1:G:294:LEU:CD1	1:G:345:CYS:HA	1.84	1.07
1:A:126:LEU:HD12	1:A:126:LEU:O	1.51	1.07
1:A:294:LEU:CD1	1:A:345:CYS:HA	1.85	1.07
1:B:294:LEU:H	1:B:294:LEU:HD12	1.13	1.07
1:C:265:VAL:HG12	1:C:269:LEU:HD11	1.12	1.07
1:G:279:LYS:HZ3	1:G:279:LYS:HB2	0.93	1.07
1:G:293:ILE:HD11	1:G:343:LEU:HD11	1.08	1.07
1:H:228:SER:O	1:H:232:ILE:HG22	1.54	1.07
1:H:273:GLN:HB3	1:H:344:LYS:HA	1.36	1.07
1:H:356:VAL:HG23	1:H:357:LEU:HD13	1.32	1.07
1:D:251:VAL:HG23	1:D:319:SER:O	1.55	1.07
1:E:175:ILE:HD11	1:E:196:GLY:H	1.17	1.07
1:G:279:LYS:HB2	1:G:279:LYS:NZ	1.53	1.07
1:B:175:ILE:HA	1:B:221:LEU:CD2	1.85	1.07
1:D:134:VAL:HG11	1:D:268:ALA:HA	1.36	1.07
1:D:273:GLN:HE21	1:D:273:GLN:N	1.51	1.07
1:C:134:VAL:HG11	1:C:268:ALA:HA	1.33	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:294:LEU:CD1	1:D:345:CYS:HA	1.85	1.07
1:E:226:ARG:HH11	1:E:226:ARG:HG3	1.18	1.07
1:E:294:LEU:CD1	1:E:345:CYS:HA	1.85	1.07
1:F:255:GLU:OE1	1:F:255:GLU:HA	1.53	1.07
1:A:294:LEU:HD11	1:A:345:CYS:HA	1.34	1.06
1:F:226:ARG:HH11	1:F:226:ARG:HG3	1.15	1.06
1:H:134:VAL:HG11	1:H:268:ALA:HA	1.36	1.06
1:B:196:GLY:HA2	1:B:355:ARG:NH2	1.70	1.06
1:D:298:ALA:HB1	1:D:338:VAL:O	1.56	1.06
1:F:126:LEU:HD12	1:F:126:LEU:O	1.56	1.06
1:H:165:GLN:H	1:H:212:THR:HG23	0.93	1.06
1:A:175:ILE:HA	1:A:221:LEU:CD2	1.85	1.06
1:H:157:ILE:HD12	1:H:157:ILE:O	1.56	1.06
1:A:273:GLN:N	1:A:273:GLN:NE2	2.01	1.06
1:C:229:TYR:HD1	1:C:233:LEU:CD1	1.69	1.06
1:E:165:GLN:H	1:E:212:THR:CG2	1.68	1.06
1:H:280:ILE:CD1	1:H:322:PHE:CE2	2.39	1.06
1:B:116:ILE:O	1:B:118:LYS:HG3	1.55	1.06
1:C:111:TYR:HE1	1:F:111:TYR:CE2	1.75	1.05
1:C:294:LEU:CD1	1:C:345:CYS:HA	1.84	1.05
1:F:294:LEU:HD12	1:F:294:LEU:N	1.70	1.05
1:F:324:GLU:O	1:F:328:LEU:HD12	1.55	1.05
1:G:226:ARG:HG3	1:G:226:ARG:HH11	1.15	1.05
1:C:111:TYR:CE1	1:F:111:TYR:CE2	2.44	1.05
1:D:200:GLU:HG2	1:D:201:LEU:H	1.15	1.05
1:C:278:GLN:HG3	1:C:279:LYS:N	1.66	1.05
1:D:291:PHE:CE1	1:D:347:LYS:NZ	2.25	1.05
1:H:279:LYS:NZ	1:H:336:THR:HG23	1.72	1.05
1:F:289:GLU:HG3	1:F:347:LYS:NZ	1.69	1.04
1:A:114:LYS:HG3	1:A:115:VAL:H	1.22	1.04
1:G:294:LEU:HD12	1:G:294:LEU:H	0.99	1.04
1:A:371:TYR:CE1	2:A:402:CMP:C8	2.41	1.04
1:C:243:MET:HE3	1:E:157:ILE:HD12	1.37	1.04
1:C:272:VAL:HA	1:C:273:GLN:NE2	1.72	1.04
1:F:251:VAL:HG12	1:F:254:LEU:CD2	1.88	1.04
1:C:113:ARG:HD2	1:F:112:VAL:HB	1.37	1.04
1:D:190:THR:HG22	1:D:191:SER:H	1.21	1.04
1:D:279:LYS:NZ	1:D:279:LYS:CB	2.06	1.04
1:D:324:GLU:HG2	1:D:325:ILE:N	1.70	1.04
1:D:356:VAL:HG23	1:D:357:LEU:CD1	1.86	1.04
1:G:161:THR:HA	1:G:214:LYS:HD2	1.40	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:233:LEU:H	1:G:233:LEU:HD12	1.22	1.04
1:H:272:VAL:CA	1:H:273:GLN:NE2	2.21	1.04
1:A:262:ARG:O	1:A:265:VAL:HB	1.56	1.04
1:C:275:GLU:O	1:C:278:GLN:HB3	1.56	1.04
1:F:289:GLU:HG3	1:F:347:LYS:HZ3	1.16	1.04
1:A:294:LEU:H	1:A:294:LEU:HD12	1.13	1.03
1:B:182:VAL:HG22	1:B:190:THR:O	1.56	1.03
1:C:156:PHE:CD2	1:C:162:VAL:HG12	1.91	1.03
1:C:281:VAL:HG11	1:C:333:ARG:HD2	1.35	1.03
1:D:293:ILE:HG13	1:D:345:CYS:SG	1.98	1.03
1:D:294:LEU:HD12	1:D:294:LEU:N	1.68	1.03
1:A:365:LYS:O	1:A:368:ILE:HG13	1.58	1.03
1:B:153:PRO:HB3	1:B:222:TRP:CZ3	1.92	1.03
1:B:356:VAL:HG23	1:B:357:LEU:HD13	1.34	1.03
1:G:302:GLN:CG	1:G:313:VAL:HG11	1.87	1.03
1:H:280:ILE:HD13	1:H:322:PHE:CE2	1.92	1.03
1:A:198:PHE:HD1	1:A:198:PHE:C	1.57	1.03
1:F:112:VAL:HG13	1:F:113:ARG:H	1.24	1.03
1:F:172:PHE:HB3	1:F:224:ILE:HD11	1.40	1.03
1:B:280:ILE:CD1	1:B:322:PHE:HE2	1.72	1.03
1:C:113:ARG:CG	1:F:112:VAL:HG11	1.88	1.03
1:C:269:LEU:HB3	1:C:346:VAL:CG2	1.89	1.03
1:D:293:ILE:HD11	1:D:343:LEU:CD1	1.88	1.03
1:G:251:VAL:HG13	1:G:254:LEU:HD21	1.37	1.03
1:H:251:VAL:O	1:H:254:LEU:HD11	1.57	1.03
1:B:251:VAL:HG13	1:B:254:LEU:HD21	1.35	1.03
1:E:266:ALA:HA	1:E:269:LEU:HD12	1.33	1.03
1:F:175:ILE:HD11	1:F:196:GLY:H	1.21	1.03
1:G:190:THR:HG22	1:G:191:SER:H	1.23	1.03
1:A:115:VAL:HG21	1:D:112:VAL:H	1.20	1.02
1:E:299:ALA:HB1	1:E:312:GLU:OE2	1.56	1.02
1:F:157:ILE:HD12	1:H:243:MET:HE1	1.41	1.02
1:G:266:ALA:HA	1:G:269:LEU:CD1	1.89	1.02
1:C:165:GLN:H	1:C:212:THR:CG2	1.71	1.02
1:E:175:ILE:HA	1:E:221:LEU:CD2	1.90	1.02
1:E:265:VAL:HG13	1:E:269:LEU:HD21	1.36	1.02
1:E:325:ILE:HD11	2:E:402:CMP:O2P	1.59	1.02
1:H:279:LYS:NZ	1:H:279:LYS:HB2	1.75	1.02
1:A:113:ARG:HE	1:D:113:ARG:HB3	0.89	1.02
1:B:111:TYR:O	1:B:112:VAL:HG22	1.58	1.02
1:B:280:ILE:HD11	1:B:322:PHE:HE2	1.17	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:249:SER:HA	1:C:262:ARG:NH2	1.73	1.02
1:C:280:ILE:CD1	1:C:322:PHE:CE2	2.38	1.02
1:E:229:TYR:CD1	1:E:233:LEU:HD13	1.94	1.02
1:A:266:ALA:HA	1:A:269:LEU:HD12	1.37	1.02
1:B:280:ILE:CD1	1:B:322:PHE:CE2	2.43	1.02
1:B:294:LEU:HD12	1:B:294:LEU:N	1.73	1.02
1:D:273:GLN:N	1:D:273:GLN:NE2	2.06	1.02
1:E:294:LEU:HD12	1:E:294:LEU:H	1.06	1.02
1:F:114:LYS:NZ	1:F:115:VAL:HG22	1.74	1.02
1:B:180:MET:HB2	1:B:192:VAL:HB	1.40	1.02
1:C:115:VAL:HA	1:C:149:ASP:HB3	1.39	1.02
1:C:226:ARG:HH11	1:C:226:ARG:HG3	1.19	1.02
1:E:273:GLN:N	1:E:273:GLN:NE2	2.06	1.02
1:H:114:LYS:NZ	1:H:115:VAL:H	1.55	1.02
1:H:226:ARG:HH11	1:H:226:ARG:HG3	1.22	1.02
1:H:229:TYR:CD1	1:H:233:LEU:HD13	1.95	1.02
1:A:114:LYS:CG	1:A:115:VAL:H	1.72	1.01
1:B:126:LEU:HD12	1:B:126:LEU:O	1.59	1.01
1:B:172:PHE:HB3	1:B:224:ILE:HD11	1.40	1.01
1:E:111:TYR:CE2	1:H:111:TYR:CE2	2.47	1.01
1:H:161:THR:HA	1:H:214:LYS:HD2	1.42	1.01
1:A:301:LEU:HB3	1:A:310:PHE:CE2	1.94	1.01
1:E:348:LEU:HD21	1:E:356:VAL:HG21	1.43	1.01
1:H:251:VAL:HG13	1:H:254:LEU:HD21	1.38	1.01
1:A:229:TYR:CD1	1:A:233:LEU:HD13	1.95	1.01
1:C:229:TYR:CD1	1:C:233:LEU:CD1	2.43	1.01
1:D:162:VAL:HG23	1:D:163:ILE:HG13	1.39	1.01
1:D:260:TRP:HE1	2:D:401:CMP:H2'	1.23	1.01
1:F:165:GLN:H	1:F:212:THR:HG23	0.84	1.01
1:G:162:VAL:HG23	1:G:163:ILE:HG13	1.40	1.01
1:H:112:VAL:HG13	1:H:113:ARG:H	1.25	1.01
1:C:279:LYS:HE2	1:C:336:THR:CG2	1.90	1.01
1:D:135:LEU:HD12	1:D:136:PHE:H	1.25	1.01
1:B:156:PHE:CD2	1:B:162:VAL:HG12	1.95	1.00
1:B:190:THR:HG22	1:B:191:SER:H	1.24	1.00
1:C:165:GLN:H	1:C:212:THR:HG23	0.86	1.00
1:C:175:ILE:HA	1:C:221:LEU:CD2	1.91	1.00
1:E:294:LEU:HD11	1:E:345:CYS:HA	1.43	1.00
1:F:260:TRP:HE1	2:F:401:CMP:H2'	1.26	1.00
1:G:211:ASP:CG	2:G:401:CMP:H5'1	1.81	1.00
1:H:165:GLN:H	1:H:212:THR:CG2	1.74	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:272:VAL:HA	1:H:273:GLN:HE22	1.13	1.00
1:A:115:VAL:CB	1:D:112:VAL:HG23	1.90	1.00
1:A:260:TRP:CE2	2:A:401:CMP:C8	2.43	1.00
1:H:190:THR:HG22	1:H:191:SER:H	1.25	1.00
1:H:274:PHE:HD2	1:H:343:LEU:HD23	1.22	1.00
1:A:161:THR:HA	1:A:214:LYS:HD2	1.44	1.00
1:A:371:TYR:HE1	2:A:402:CMP:C8	1.74	1.00
1:B:269:LEU:HB3	1:B:346:VAL:HG21	1.38	1.00
1:F:165:GLN:H	1:F:212:THR:CG2	1.75	1.00
1:G:196:GLY:HA2	1:G:355:ARG:NH2	1.76	1.00
1:G:302:GLN:HG3	1:G:313:VAL:CG1	1.92	1.00
1:H:249:SER:CA	1:H:262:ARG:HH22	1.74	1.00
1:C:266:ALA:HA	1:C:269:LEU:CD1	1.92	1.00
1:F:233:LEU:HD12	1:F:233:LEU:H	1.26	1.00
1:B:139:LEU:HD12	1:B:139:LEU:H	1.26	1.00
1:C:139:LEU:H	1:C:139:LEU:HD12	1.24	1.00
1:E:126:LEU:O	1:E:126:LEU:HD12	1.60	1.00
1:E:265:VAL:HG12	1:E:269:LEU:HD11	1.41	1.00
1:E:280:ILE:CD1	1:E:322:PHE:HE2	1.75	1.00
1:G:229:TYR:CD1	1:G:233:LEU:HD13	1.96	1.00
1:C:282:VAL:O	1:C:285:GLU:HG2	1.62	1.00
1:D:229:TYR:CD1	1:D:233:LEU:HD13	1.97	1.00
1:E:279:LYS:NZ	1:E:279:LYS:CB	2.21	1.00
1:A:255:GLU:OE1	1:A:255:GLU:HA	1.56	1.00
1:G:279:LYS:HZ3	1:G:279:LYS:CB	1.72	1.00
1:B:294:LEU:CD1	1:B:345:CYS:HA	1.91	0.99
1:C:293:ILE:HD11	1:C:343:LEU:HD11	1.43	0.99
1:G:251:VAL:CG1	1:G:254:LEU:HD21	1.92	0.99
1:H:300:VAL:O	1:H:301:LEU:HD23	1.61	0.99
1:F:280:ILE:CD1	1:F:322:PHE:CE2	2.45	0.99
1:H:226:ARG:HG3	1:H:226:ARG:NH1	1.75	0.99
1:A:357:LEU:N	1:A:357:LEU:HD12	1.55	0.99
1:H:182:VAL:HG23	1:H:182:VAL:O	1.61	0.99
1:A:113:ARG:HE	1:D:113:ARG:CB	1.73	0.99
1:A:269:LEU:HB3	1:A:346:VAL:CG2	1.93	0.99
1:D:371:TYR:CE1	2:D:402:CMP:N7	2.30	0.99
1:A:233:LEU:H	1:A:233:LEU:HD12	1.26	0.99
1:C:158:ALA:HB2	1:C:217:THR:C	1.83	0.99
1:A:294:LEU:HD12	1:A:294:LEU:N	1.75	0.99
1:B:226:ARG:HG3	1:B:226:ARG:HH11	1.27	0.99
1:E:282:VAL:O	1:E:285:GLU:HG2	1.63	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:293:ILE:CD1	1:G:343:LEU:HD11	1.92	0.99
1:A:175:ILE:HD13	1:A:194:GLU:HA	1.45	0.99
1:C:110:SER:HB3	1:F:114:LYS:HE2	1.40	0.99
1:D:247:PHE:HE1	1:D:294:LEU:HA	1.27	0.99
1:G:356:VAL:HG23	1:G:357:LEU:CD1	1.93	0.98
1:A:172:PHE:HB3	1:A:224:ILE:HD11	1.44	0.98
1:E:111:TYR:CE2	1:H:112:VAL:HG12	1.98	0.98
1:A:135:LEU:HD12	1:A:136:PHE:H	1.24	0.98
1:E:111:TYR:HE2	1:H:112:VAL:CG1	1.76	0.98
1:A:157:ILE:O	1:A:157:ILE:HD12	1.64	0.98
1:C:265:VAL:HG13	1:C:269:LEU:HD21	1.45	0.98
1:E:365:LYS:O	1:E:368:ILE:HG13	1.63	0.98
1:H:269:LEU:HB3	1:H:346:VAL:HG21	1.45	0.98
1:D:259:LYS:HG3	1:D:260:TRP:N	1.79	0.98
1:C:273:GLN:HB3	1:C:343:LEU:O	1.63	0.98
1:H:154:VAL:HG12	1:H:221:LEU:HB2	1.45	0.98
1:A:251:VAL:HG23	1:A:319:SER:O	1.63	0.98
1:B:200:GLU:HG2	1:B:201:LEU:H	1.29	0.98
1:C:229:TYR:CD1	1:C:233:LEU:HD13	1.98	0.98
1:D:226:ARG:HH11	1:D:226:ARG:HG3	1.23	0.98
1:H:196:GLY:HA2	1:H:355:ARG:NH2	1.77	0.98
1:D:247:PHE:CE1	1:D:294:LEU:HA	1.98	0.98
1:H:229:TYR:CD1	1:H:233:LEU:CD1	2.47	0.98
1:B:233:LEU:H	1:B:233:LEU:HD12	1.26	0.97
1:E:251:VAL:HG23	1:E:319:SER:O	1.63	0.97
1:A:135:LEU:HD12	1:A:136:PHE:N	1.80	0.97
1:A:293:ILE:HD11	1:A:343:LEU:HD11	1.42	0.97
1:A:230:ARG:NH1	1:A:234:MET:CE	2.26	0.97
1:C:281:VAL:CG1	1:C:333:ARG:HD2	1.93	0.97
1:D:301:LEU:HD23	1:D:310:PHE:HD1	1.28	0.97
1:B:260:TRP:HE1	2:B:401:CMP:H2'	1.29	0.97
1:H:229:TYR:HD1	1:H:233:LEU:CD1	1.77	0.97
1:H:284:GLY:C	1:H:332:PRO:HB3	1.85	0.97
1:C:204:ILE:HG22	1:C:205:TYR:CD2	2.00	0.97
1:F:293:ILE:HD11	1:F:343:LEU:HD11	1.47	0.97
1:A:198:PHE:HD1	1:A:198:PHE:O	1.46	0.97
1:H:253:ILE:HG13	1:H:254:LEU:H	1.30	0.96
1:A:139:LEU:H	1:A:139:LEU:HD12	1.28	0.96
1:A:226:ARG:HH11	1:A:226:ARG:HG3	1.28	0.96
1:G:148:PHE:CD1	1:H:120:TYR:CE1	2.52	0.96
1:B:229:TYR:HD1	1:B:233:LEU:HD13	1.27	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:294:LEU:HD12	1:C:294:LEU:H	1.16	0.96
1:D:182:VAL:HG12	1:D:213:VAL:HG22	1.43	0.96
1:F:157:ILE:HD12	1:H:243:MET:HE3	1.40	0.96
1:A:153:PRO:HB3	1:A:222:TRP:CZ3	2.01	0.96
1:A:259:LYS:HG3	1:A:260:TRP:N	1.78	0.96
1:C:265:VAL:HG12	1:C:269:LEU:CD1	1.93	0.96
1:E:178:GLY:HA3	1:E:219:VAL:HG12	1.45	0.96
1:B:259:LYS:HG3	1:B:260:TRP:N	1.80	0.96
1:B:260:TRP:CE2	2:B:401:CMP:C8	2.48	0.96
1:C:283:GLN:HA	1:C:333:ARG:O	1.66	0.96
1:G:172:PHE:HB3	1:G:224:ILE:HD11	1.46	0.96
1:G:247:PHE:HE1	1:G:294:LEU:HA	1.29	0.96
1:A:198:PHE:C	1:A:198:PHE:CD1	2.32	0.96
1:E:249:SER:N	1:E:262:ARG:HH22	1.61	0.96
1:A:247:PHE:HE1	1:A:294:LEU:HA	1.28	0.96
1:B:273:GLN:N	1:B:273:GLN:HE21	1.53	0.96
1:C:156:PHE:HE2	1:C:162:VAL:HG12	1.19	0.96
1:C:230:ARG:HG2	1:C:234:MET:HE1	1.46	0.96
1:C:324:GLU:O	1:C:328:LEU:HD12	1.65	0.96
1:D:172:PHE:HB3	1:D:224:ILE:HD11	1.47	0.96
1:F:269:LEU:HB3	1:F:346:VAL:CG2	1.95	0.96
1:F:273:GLN:N	1:F:273:GLN:NE2	2.13	0.96
1:A:280:ILE:HD11	1:A:322:PHE:HE2	1.31	0.96
1:D:153:PRO:HB3	1:D:222:TRP:CZ3	2.01	0.96
1:F:118:LYS:HE2	1:F:148:PHE:O	1.65	0.96
1:H:114:LYS:HZ1	1:H:115:VAL:H	1.06	0.96
1:C:120:TYR:HB2	1:D:149:ASP:OD1	1.66	0.95
1:H:279:LYS:HE3	1:H:282:VAL:HG22	1.47	0.95
1:A:154:VAL:HG12	1:A:221:LEU:HB2	1.44	0.95
1:C:190:THR:HG22	1:C:191:SER:H	1.30	0.95
1:E:280:ILE:CD1	1:E:322:PHE:CE2	2.50	0.95
1:G:134:VAL:HG11	1:G:268:ALA:HA	1.44	0.95
1:H:211:ASP:CG	2:H:401:CMP:H5'1	1.85	0.95
1:A:251:VAL:HG13	1:A:254:LEU:HD21	1.45	0.95
1:C:120:TYR:CE1	1:D:148:PHE:CD1	2.53	0.95
1:C:274:PHE:CD2	1:C:343:LEU:HD23	1.99	0.95
1:G:255:GLU:OE1	1:G:255:GLU:HA	1.65	0.95
1:H:158:ALA:HB2	1:H:217:THR:C	1.86	0.95
1:B:230:ARG:O	1:B:234:MET:HB3	1.63	0.95
1:C:182:VAL:HG23	1:C:182:VAL:O	1.66	0.95
1:D:200:GLU:HG2	1:D:201:LEU:N	1.78	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:148:PHE:CB	1:H:120:TYR:HD1	1.79	0.95
1:G:165:GLN:H	1:G:212:THR:HG23	0.80	0.95
1:A:112:VAL:HG22	1:D:115:VAL:HG21	1.46	0.95
1:E:251:VAL:O	1:E:254:LEU:HD11	1.65	0.95
1:F:329:MET:HB2	1:F:331:ARG:HG3	1.48	0.95
1:A:291:PHE:N	1:A:291:PHE:HD1	1.60	0.95
1:B:175:ILE:HD13	1:B:194:GLU:HA	1.45	0.95
1:C:365:LYS:O	1:C:368:ILE:HG13	1.64	0.95
1:A:269:LEU:HD22	1:A:346:VAL:CG2	1.97	0.95
1:B:200:GLU:HG2	1:B:201:LEU:N	1.78	0.95
1:F:259:LYS:O	1:F:262:ARG:HG3	1.63	0.95
1:G:226:ARG:HG3	1:G:226:ARG:NH1	1.72	0.95
1:H:172:PHE:HB3	1:H:224:ILE:HD11	1.49	0.95
1:A:112:VAL:C	1:A:112:VAL:HA	1.86	0.95
1:C:272:VAL:CA	1:C:273:GLN:NE2	2.30	0.95
1:G:259:LYS:O	1:G:262:ARG:HG3	1.66	0.95
1:A:196:GLY:HA2	1:A:355:ARG:NH2	1.81	0.94
1:C:120:TYR:HD1	1:D:148:PHE:CB	1.80	0.94
1:A:158:ALA:HB2	1:A:217:THR:C	1.87	0.94
1:B:200:GLU:CG	1:B:201:LEU:H	1.79	0.94
1:B:251:VAL:HG23	1:B:319:SER:O	1.66	0.94
1:E:243:MET:HE3	1:G:157:ILE:CD1	1.97	0.94
1:E:255:GLU:OE1	1:E:255:GLU:HA	1.65	0.94
1:C:172:PHE:HB3	1:C:224:ILE:HD11	1.46	0.94
1:F:300:VAL:HG22	1:F:337:VAL:HG22	1.48	0.94
1:G:148:PHE:CD1	1:H:120:TYR:HE1	1.85	0.94
1:G:173:TYR:HB2	1:G:198:PHE:CE1	2.02	0.94
1:H:229:TYR:CE1	1:H:233:LEU:HD13	2.01	0.94
1:H:233:LEU:H	1:H:233:LEU:HD12	1.32	0.94
1:C:265:VAL:CG1	1:C:269:LEU:HD21	1.98	0.94
1:B:157:ILE:HD12	1:B:157:ILE:O	1.68	0.94
1:B:253:ILE:HG13	1:B:254:LEU:H	1.30	0.94
1:F:175:ILE:HA	1:F:221:LEU:CD2	1.97	0.94
1:G:260:TRP:HE1	2:G:401:CMP:H2'	1.27	0.94
1:H:365:LYS:O	1:H:368:ILE:HG13	1.66	0.94
1:E:273:GLN:HE21	1:E:273:GLN:H	1.07	0.94
1:A:115:VAL:HG21	1:D:112:VAL:N	1.83	0.94
1:B:291:PHE:N	1:B:291:PHE:HD1	1.66	0.94
1:C:356:VAL:HG23	1:C:357:LEU:CD1	1.96	0.94
1:F:114:LYS:NZ	1:F:115:VAL:CG2	2.30	0.94
1:F:279:LYS:HB2	1:F:279:LYS:NZ	1.81	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:300:VAL:CG1	1:F:335:ALA:HB1	1.96	0.94
1:B:350:ARG:HB3	1:B:351:PRO:HD3	1.47	0.94
1:C:120:TYR:HE1	1:D:148:PHE:CD1	1.86	0.94
1:E:211:ASP:OD2	2:E:401:CMP:H3'	1.67	0.94
1:D:279:LYS:HB2	1:D:279:LYS:HZ3	0.85	0.94
1:A:294:LEU:HD13	1:A:344:LYS:O	1.67	0.93
1:F:229:TYR:HD1	1:F:233:LEU:CD1	1.81	0.93
1:F:294:LEU:HD12	1:F:294:LEU:H	1.31	0.93
1:G:204:ILE:HG12	1:G:234:MET:SD	2.08	0.93
1:H:114:LYS:HZ1	1:H:115:VAL:N	1.65	0.93
1:C:251:VAL:HG13	1:C:254:LEU:HD21	1.50	0.93
1:D:165:GLN:H	1:D:212:THR:HG23	0.78	0.93
1:E:171:ASN:HB3	1:E:224:ILE:O	1.68	0.93
1:E:173:TYR:HB2	1:E:198:PHE:CE1	2.04	0.93
1:F:294:LEU:CD1	1:F:345:CYS:HA	1.98	0.93
1:H:300:VAL:HG11	2:H:402:CMP:C8	1.98	0.93
1:A:156:PHE:CE2	1:A:162:VAL:HG12	2.03	0.93
1:C:182:VAL:HG12	1:C:213:VAL:HG13	1.51	0.93
1:B:259:LYS:HG3	1:B:260:TRP:H	1.34	0.93
1:F:171:ASN:HB3	1:F:224:ILE:O	1.69	0.93
1:A:175:ILE:CD1	1:A:194:GLU:HA	1.98	0.93
1:A:182:VAL:HG12	1:A:213:VAL:HG22	1.48	0.93
1:C:115:VAL:CG2	1:F:110:SER:HB2	1.98	0.93
1:D:161:THR:HA	1:D:214:LYS:HD2	1.49	0.93
1:D:324:GLU:HG2	1:D:325:ILE:H	1.21	0.93
1:F:162:VAL:CG2	1:F:163:ILE:HG13	1.99	0.93
1:F:179:GLU:HG2	1:F:216:LYS:HD3	1.50	0.93
1:A:162:VAL:HG23	1:A:163:ILE:HG13	1.49	0.93
1:B:182:VAL:O	1:B:182:VAL:HG23	1.69	0.93
1:G:251:VAL:O	1:G:254:LEU:HD11	1.68	0.93
1:H:182:VAL:HG12	1:H:213:VAL:HG22	1.48	0.93
1:H:280:ILE:HG13	1:H:281:VAL:N	1.82	0.93
1:A:211:ASP:OD2	2:A:401:CMP:H3'	1.69	0.93
1:B:255:GLU:OE1	1:B:255:GLU:HA	1.66	0.93
1:D:175:ILE:HA	1:D:221:LEU:CD2	1.99	0.93
1:D:371:TYR:HE1	2:D:402:CMP:N7	1.66	0.93
1:G:371:TYR:CE1	2:G:402:CMP:C5	2.56	0.93
1:H:269:LEU:HB3	1:H:346:VAL:CG2	1.99	0.93
1:B:247:PHE:CE1	1:B:294:LEU:HA	2.03	0.93
1:D:273:GLN:HE21	1:D:273:GLN:H	0.99	0.93
1:H:262:ARG:O	1:H:265:VAL:HB	1.69	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:325:ILE:HD11	2:D:402:CMP:O1P	1.69	0.92
1:E:233:LEU:H	1:E:233:LEU:HD12	1.32	0.92
1:F:157:ILE:CD1	1:H:243:MET:HE3	1.98	0.92
1:F:226:ARG:HG3	1:F:226:ARG:NH1	1.74	0.92
1:H:156:PHE:CD2	1:H:162:VAL:CG1	2.52	0.92
1:H:279:LYS:HZ1	1:H:336:THR:HG23	1.31	0.92
1:B:279:LYS:HE3	1:B:282:VAL:HG22	1.51	0.92
1:C:161:THR:HA	1:C:214:LYS:HD2	1.51	0.92
1:C:179:GLU:HG2	1:C:216:LYS:HD2	1.52	0.92
1:D:293:ILE:CD1	1:D:343:LEU:HD11	1.99	0.92
1:F:161:THR:HA	1:F:214:LYS:HD2	1.49	0.92
1:B:325:ILE:HG13	1:B:326:ALA:H	1.34	0.92
1:D:157:ILE:HB	1:D:218:ASN:OD1	1.70	0.92
1:H:294:LEU:CD1	1:H:295:GLU:N	2.32	0.92
1:A:357:LEU:HD12	1:A:357:LEU:H	1.31	0.92
1:C:270:GLU:O	1:C:346:VAL:HA	1.68	0.92
1:C:126:LEU:HD12	1:C:126:LEU:O	1.68	0.92
1:E:172:PHE:HB3	1:E:224:ILE:HD11	1.47	0.92
1:H:356:VAL:HG23	1:H:357:LEU:CD1	1.98	0.92
1:A:280:ILE:CD1	1:A:322:PHE:HE2	1.80	0.92
1:E:265:VAL:HG12	1:E:269:LEU:HD21	1.50	0.92
1:F:280:ILE:HD11	1:F:322:PHE:HE2	1.33	0.92
1:H:139:LEU:H	1:H:139:LEU:HD12	1.35	0.92
1:B:266:ALA:HA	1:B:269:LEU:HD12	1.51	0.92
1:D:204:ILE:HG12	1:D:234:MET:SD	2.08	0.92
1:G:247:PHE:CE1	1:G:294:LEU:HA	2.05	0.92
1:A:249:SER:N	1:A:262:ARG:HH22	1.67	0.92
1:A:259:LYS:HG3	1:A:260:TRP:H	1.31	0.92
1:D:279:LYS:HB2	1:D:279:LYS:HZ2	1.34	0.92
1:H:302:GLN:NE2	1:H:374:PHE:CB	2.32	0.92
1:B:280:ILE:HD13	1:B:322:PHE:CZ	2.04	0.92
1:C:175:ILE:HA	1:C:221:LEU:HD22	1.51	0.92
1:G:302:GLN:HG3	1:G:313:VAL:HG11	0.96	0.92
1:D:118:LYS:HE2	1:D:148:PHE:O	1.70	0.92
1:F:294:LEU:HD11	1:F:345:CYS:HA	1.50	0.92
1:G:153:PRO:HB3	1:G:222:TRP:CZ3	2.05	0.92
1:B:118:LYS:HE2	1:B:148:PHE:O	1.70	0.91
1:C:243:MET:HE1	1:E:157:ILE:HD12	1.52	0.91
1:E:113:ARG:O	1:H:112:VAL:HB	1.69	0.91
1:G:265:VAL:HG12	1:G:269:LEU:CD1	1.99	0.91
1:G:279:LYS:NZ	1:G:279:LYS:CB	2.16	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:350:ARG:HB3	1:G:351:PRO:HD3	1.52	0.91
1:H:234:MET:HG3	1:H:238:LEU:HD12	1.52	0.91
1:H:285:GLU:OE1	1:H:285:GLU:HA	1.69	0.91
1:D:196:GLY:HA2	1:D:355:ARG:NH2	1.84	0.91
1:E:289:GLU:HG3	1:E:347:LYS:NZ	1.83	0.91
1:G:301:LEU:HD13	1:G:310:PHE:HB3	1.50	0.91
1:H:274:PHE:CD2	1:H:343:LEU:HD23	2.05	0.91
1:A:247:PHE:CE1	1:A:294:LEU:HA	2.05	0.91
1:B:200:GLU:HG2	1:B:201:LEU:CD1	1.98	0.91
1:C:226:ARG:HG3	1:C:226:ARG:NH1	1.74	0.91
1:H:294:LEU:HD12	1:H:294:LEU:C	1.87	0.91
1:B:175:ILE:CD1	1:B:194:GLU:HA	2.00	0.91
1:A:115:VAL:HG21	1:D:112:VAL:CG2	2.00	0.91
1:B:259:LYS:O	1:B:262:ARG:HG3	1.70	0.91
1:B:313:VAL:HG23	1:B:313:VAL:O	1.67	0.91
1:E:228:SER:O	1:E:232:ILE:HG22	1.70	0.91
1:F:152:PHE:HE2	1:F:223:GLY:HA3	1.33	0.91
1:B:247:PHE:HE1	1:B:294:LEU:HA	1.33	0.91
1:C:156:PHE:CD2	1:C:162:VAL:CG1	2.53	0.91
1:E:280:ILE:HD11	1:E:322:PHE:HE2	1.34	0.91
1:F:179:GLU:HG2	1:F:216:LYS:CD	1.99	0.91
1:G:251:VAL:HG23	1:G:319:SER:O	1.70	0.91
1:F:293:ILE:HG13	1:F:345:CYS:SG	2.09	0.91
1:A:273:GLN:HE21	1:A:273:GLN:H	0.99	0.91
1:C:253:ILE:HG13	1:C:254:LEU:H	1.36	0.91
1:E:111:TYR:HE2	1:H:111:TYR:HE2	1.06	0.91
1:A:180:MET:HB2	1:A:192:VAL:HB	1.51	0.91
1:C:224:ILE:HD12	1:C:224:ILE:N	1.86	0.91
1:H:293:ILE:HD11	1:H:343:LEU:HD11	1.51	0.91
1:A:230:ARG:O	1:A:234:MET:HB3	1.71	0.91
1:B:278:GLN:CG	1:B:279:LYS:H	1.84	0.91
1:C:111:TYR:CE1	1:F:111:TYR:HE2	1.87	0.91
1:D:301:LEU:CD2	1:D:310:PHE:HB3	2.00	0.91
1:E:279:LYS:HB2	1:E:279:LYS:HZ2	1.00	0.91
1:F:113:ARG:HD3	1:F:146:ASP:CG	1.91	0.91
1:F:251:VAL:O	1:F:254:LEU:HD11	1.70	0.91
1:B:111:TYR:CD2	1:B:112:VAL:N	2.39	0.90
1:B:365:LYS:O	1:B:368:ILE:HG13	1.70	0.90
1:D:324:GLU:OE2	1:D:371:TYR:CE2	2.24	0.90
1:E:161:THR:HA	1:E:214:LYS:HD2	1.52	0.90
1:H:114:LYS:HZ2	1:H:114:LYS:HA	1.33	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:280:ILE:HG13	1:C:281:VAL:N	1.84	0.90
1:A:134:VAL:HG11	1:A:268:ALA:HA	1.53	0.90
1:E:123:MET:HE3	1:F:123:MET:CE	2.02	0.90
1:E:274:PHE:CE2	1:E:280:ILE:HG22	2.05	0.90
1:F:278:GLN:HG3	1:F:279:LYS:H	1.34	0.90
1:H:259:LYS:HG3	1:H:260:TRP:N	1.84	0.90
1:C:228:SER:O	1:C:232:ILE:HG22	1.72	0.90
1:C:233:LEU:HD12	1:C:233:LEU:H	1.36	0.90
1:D:131:GLU:OE1	1:D:131:GLU:N	2.03	0.90
1:D:347:LYS:O	1:D:348:LEU:HD12	1.71	0.90
1:H:281:VAL:HG11	1:H:333:ARG:HD2	1.54	0.90
1:H:298:ALA:O	1:H:315:ARG:HA	1.70	0.90
1:B:371:TYR:CE1	2:B:402:CMP:C8	2.54	0.90
1:H:173:TYR:HD2	1:H:198:PHE:CE1	1.90	0.90
1:H:175:ILE:O	1:H:175:ILE:CD1	2.18	0.90
1:A:371:TYR:CE1	2:A:402:CMP:N7	2.39	0.90
1:E:111:TYR:CG	1:E:112:VAL:N	2.37	0.90
1:F:291:PHE:CE1	1:F:347:LYS:NZ	2.40	0.90
1:F:294:LEU:O	1:F:318:PRO:HB3	1.72	0.90
1:G:175:ILE:HA	1:G:221:LEU:CD2	2.02	0.90
1:A:293:ILE:HG13	1:A:345:CYS:SG	2.12	0.90
1:C:243:MET:HE3	1:E:157:ILE:CD1	2.01	0.90
1:D:200:GLU:CG	1:D:201:LEU:H	1.84	0.90
1:F:175:ILE:HA	1:F:221:LEU:HD22	1.54	0.90
1:C:291:PHE:N	1:C:291:PHE:HD1	1.69	0.90
1:F:365:LYS:O	1:F:368:ILE:HG13	1.72	0.90
1:B:158:ALA:HB2	1:B:217:THR:O	1.70	0.89
1:B:301:LEU:HD13	1:B:310:PHE:HB2	1.52	0.89
1:E:294:LEU:CD1	1:E:294:LEU:H	1.85	0.89
1:E:262:ARG:O	1:E:265:VAL:HB	1.70	0.89
1:F:130:ILE:HG13	1:F:136:PHE:CD2	2.06	0.89
1:G:249:SER:N	1:G:262:ARG:HH22	1.68	0.89
1:H:175:ILE:HA	1:H:221:LEU:CD2	2.01	0.89
1:A:325:ILE:CD1	2:A:402:CMP:O2P	2.20	0.89
1:C:259:LYS:HG3	1:C:260:TRP:N	1.88	0.89
1:D:234:MET:HG3	1:D:238:LEU:HD12	1.53	0.89
1:C:269:LEU:CB	1:C:346:VAL:CG2	2.49	0.89
1:A:139:LEU:HD12	1:A:139:LEU:N	1.87	0.89
1:D:233:LEU:H	1:D:233:LEU:CD1	1.78	0.89
1:D:371:TYR:CE1	2:D:402:CMP:C8	2.55	0.89
1:E:164:GLN:HA	1:E:212:THR:HG22	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:303:ARG:HA	1:E:309:GLU:O	1.72	0.89
1:H:272:VAL:C	1:H:273:GLN:HE21	1.75	0.89
1:H:323:GLY:HA2	2:H:402:CMP:O2P	1.72	0.89
1:B:175:ILE:HA	1:B:221:LEU:HD22	1.52	0.89
1:B:229:TYR:HD1	1:B:233:LEU:CD1	1.85	0.89
1:C:272:VAL:HA	1:C:273:GLN:HE22	1.33	0.89
1:F:247:PHE:HE1	1:F:294:LEU:HA	1.34	0.89
1:H:198:PHE:CD1	1:H:198:PHE:C	2.43	0.89
1:B:249:SER:N	1:B:262:ARG:HH22	1.69	0.89
1:E:118:LYS:HE2	1:E:148:PHE:O	1.71	0.89
1:E:182:VAL:O	1:E:182:VAL:HG23	1.71	0.89
1:A:280:ILE:HG13	1:A:281:VAL:N	1.87	0.89
1:F:229:TYR:CD1	1:F:233:LEU:CD1	2.56	0.89
1:C:260:TRP:HE1	2:C:401:CMP:H2'	1.36	0.89
1:E:280:ILE:HG13	1:E:281:VAL:H	1.36	0.89
1:F:263:LEU:O	1:F:266:ALA:HB3	1.73	0.89
1:A:113:ARG:HH21	1:D:115:VAL:HG13	1.35	0.88
1:B:120:TYR:HD2	1:B:120:TYR:C	1.75	0.88
1:B:211:ASP:OD2	2:B:401:CMP:H3'	1.73	0.88
1:B:226:ARG:HG3	1:B:226:ARG:NH1	1.83	0.88
1:E:266:ALA:HA	1:E:269:LEU:CD1	2.02	0.88
1:F:251:VAL:HG12	1:F:254:LEU:HD21	0.92	0.88
1:G:280:ILE:HG13	1:G:281:VAL:N	1.88	0.88
1:H:115:VAL:HA	1:H:149:ASP:HB3	1.55	0.88
1:H:255:GLU:HA	1:H:255:GLU:OE1	1.73	0.88
1:H:280:ILE:HD11	1:H:337:VAL:HB	1.54	0.88
1:A:114:LYS:CG	1:A:115:VAL:N	2.30	0.88
1:A:269:LEU:HB3	1:A:346:VAL:HG23	1.54	0.88
1:A:313:VAL:HG13	1:A:313:VAL:O	1.73	0.88
1:B:154:VAL:HG12	1:B:221:LEU:HB2	1.54	0.88
1:D:324:GLU:CG	1:D:325:ILE:H	1.85	0.88
1:D:371:TYR:CE1	2:D:402:CMP:C5	2.61	0.88
1:E:226:ARG:HG3	1:E:226:ARG:NH1	1.80	0.88
1:E:279:LYS:HE3	1:E:282:VAL:HG22	1.54	0.88
1:A:111:TYR:O	1:A:112:VAL:HG22	1.73	0.88
1:D:269:LEU:HD22	1:D:346:VAL:CG2	2.04	0.88
1:F:260:TRP:HE1	2:F:401:CMP:C2'	1.86	0.88
1:F:279:LYS:HZ3	1:F:279:LYS:CB	1.87	0.88
1:E:356:VAL:HG23	1:E:357:LEU:CD1	2.02	0.88
1:F:356:VAL:HG23	1:F:357:LEU:HD13	1.55	0.88
1:E:259:LYS:O	1:E:262:ARG:HG3	1.72	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:356:VAL:HG23	1:E:357:LEU:HD13	1.56	0.88
1:F:152:PHE:O	1:F:152:PHE:HD2	1.56	0.88
1:H:180:MET:HB2	1:H:192:VAL:HB	1.55	0.88
1:H:260:TRP:NE1	2:H:401:CMP:H2'	1.87	0.88
1:H:302:GLN:O	1:H:310:PHE:CD1	2.26	0.88
1:A:272:VAL:HG22	1:A:273:GLN:H	1.39	0.88
1:B:260:TRP:CD1	2:B:401:CMP:C5	2.62	0.88
1:C:300:VAL:O	1:C:301:LEU:HD12	1.74	0.88
1:E:111:TYR:CE2	1:H:112:VAL:CG1	2.54	0.88
1:G:229:TYR:HD1	1:G:233:LEU:CD1	1.86	0.88
1:H:122:THR:O	1:H:125:ALA:HB3	1.72	0.88
1:C:247:PHE:HE1	1:C:294:LEU:HA	1.36	0.88
1:D:226:ARG:HG3	1:D:226:ARG:NH1	1.81	0.88
1:F:182:VAL:HG23	1:F:182:VAL:O	1.71	0.88
1:F:229:TYR:CE1	1:F:233:LEU:HD13	2.09	0.88
1:A:280:ILE:CD1	1:A:322:PHE:CE2	2.57	0.88
1:B:371:TYR:CE1	2:B:402:CMP:N7	2.42	0.88
1:C:234:MET:HG3	1:C:238:LEU:HD12	1.56	0.88
1:E:165:GLN:H	1:E:212:THR:HG23	0.75	0.88
1:F:229:TYR:HD1	1:F:233:LEU:HD13	1.32	0.88
1:A:120:TYR:C	1:A:120:TYR:CD2	2.46	0.87
1:B:280:ILE:HD13	1:B:322:PHE:CE2	2.08	0.87
1:F:178:GLY:HA3	1:F:219:VAL:HG12	1.54	0.87
1:G:148:PHE:HB3	1:H:120:TYR:HD1	1.39	0.87
1:A:131:GLU:OE1	1:A:131:GLU:N	2.07	0.87
1:C:229:TYR:CE1	1:C:233:LEU:HD13	2.09	0.87
1:E:139:LEU:H	1:E:139:LEU:HD12	1.39	0.87
1:B:134:VAL:HG11	1:B:268:ALA:HA	1.55	0.87
1:E:249:SER:N	1:E:262:ARG:NH2	2.22	0.87
1:F:280:ILE:HD13	1:F:322:PHE:CE2	2.09	0.87
1:E:211:ASP:CG	2:E:401:CMP:H5'1	1.95	0.87
1:E:269:LEU:HB3	1:E:346:VAL:CG2	2.05	0.87
1:F:139:LEU:H	1:F:139:LEU:HD12	1.39	0.87
1:G:120:TYR:C	1:G:120:TYR:CD2	2.48	0.87
1:C:255:GLU:HA	1:C:255:GLU:OE1	1.75	0.87
1:E:203:LEU:HD22	1:E:226:ARG:HB3	1.57	0.87
1:F:350:ARG:O	1:F:353:PHE:HB3	1.73	0.87
1:H:291:PHE:CE1	1:H:347:LYS:NZ	2.43	0.87
1:H:300:VAL:HG23	1:H:314:GLY:H	1.39	0.87
1:B:356:VAL:HG23	1:B:357:LEU:CD1	2.04	0.87
1:C:173:TYR:HD2	1:C:198:PHE:CZ	1.92	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:162:VAL:HG23	1:H:163:ILE:HG13	1.55	0.87
1:H:273:GLN:NE2	1:H:273:GLN:N	2.22	0.87
1:A:118:LYS:HE2	1:A:148:PHE:O	1.73	0.87
1:C:266:ALA:CA	1:C:269:LEU:HD12	2.02	0.87
1:D:175:ILE:HD11	1:D:196:GLY:H	1.38	0.87
1:E:251:VAL:CG1	1:E:254:LEU:HD21	2.03	0.87
1:H:126:LEU:HD12	1:H:126:LEU:O	1.74	0.87
1:A:115:VAL:CG2	1:D:112:VAL:H	1.88	0.87
1:A:120:TYR:HD1	1:B:148:PHE:HB2	1.37	0.87
1:A:230:ARG:O	1:A:234:MET:CB	2.22	0.87
1:A:324:GLU:HG2	1:A:325:ILE:N	1.89	0.87
1:B:111:TYR:C	1:B:112:VAL:HG22	1.92	0.87
1:C:158:ALA:HB1	1:C:216:LYS:O	1.75	0.87
1:C:198:PHE:C	1:C:198:PHE:CD1	2.38	0.87
1:H:272:VAL:C	1:H:273:GLN:NE2	2.28	0.87
1:C:329:MET:HA	1:C:329:MET:CE	2.05	0.86
1:D:204:ILE:HG22	1:D:205:TYR:CD2	2.09	0.86
1:B:262:ARG:O	1:B:265:VAL:HB	1.75	0.86
1:B:325:ILE:HD11	2:B:402:CMP:O1P	1.75	0.86
1:C:300:VAL:HG21	1:C:313:VAL:HG12	1.56	0.86
1:E:229:TYR:HD1	1:E:233:LEU:HD13	1.40	0.86
1:G:204:ILE:HG22	1:G:205:TYR:CD2	2.09	0.86
1:G:229:TYR:CD1	1:G:233:LEU:CD1	2.58	0.86
1:H:230:ARG:O	1:H:234:MET:HB3	1.74	0.86
1:A:152:PHE:HE2	1:A:223:GLY:HA3	1.40	0.86
1:B:158:ALA:HB1	1:B:216:LYS:O	1.75	0.86
1:C:139:LEU:HD12	1:C:139:LEU:N	1.89	0.86
1:C:269:LEU:CB	1:C:346:VAL:HG21	2.06	0.86
1:F:278:GLN:CG	1:F:279:LYS:H	1.88	0.86
1:H:275:GLU:O	1:H:278:GLN:HB2	1.73	0.86
1:F:273:GLN:HE21	1:F:273:GLN:H	1.15	0.86
1:A:226:ARG:HG3	1:A:226:ARG:NH1	1.84	0.86
1:F:190:THR:HG22	1:F:191:SER:H	1.39	0.86
1:B:139:LEU:HD12	1:B:139:LEU:N	1.86	0.86
1:G:139:LEU:HD12	1:G:139:LEU:N	1.91	0.86
1:C:198:PHE:CD1	1:C:198:PHE:O	2.27	0.86
1:E:353:PHE:CE1	1:E:357:LEU:HD22	2.10	0.86
1:D:211:ASP:CG	2:D:401:CMP:H5'1	1.95	0.86
1:F:274:PHE:CE2	1:F:280:ILE:HG22	2.11	0.86
1:A:188:TRP:CZ3	1:A:190:THR:C	2.48	0.86
1:B:279:LYS:HZ3	1:B:279:LYS:HB2	1.40	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:329:MET:HA	1:C:329:MET:HE3	1.58	0.86
1:G:178:GLY:HA3	1:G:219:VAL:HG12	1.57	0.86
1:B:371:TYR:HE1	2:B:402:CMP:N7	1.74	0.85
1:E:328:LEU:CD2	1:E:365:LYS:HE3	2.06	0.85
1:B:120:TYR:C	1:B:120:TYR:CD2	2.45	0.85
1:D:300:VAL:CG2	1:D:335:ALA:HB1	2.05	0.85
1:E:291:PHE:N	1:E:291:PHE:HD1	1.74	0.85
1:G:294:LEU:CD1	1:G:294:LEU:H	1.88	0.85
1:E:293:ILE:CD1	1:E:317:GLY:O	2.24	0.85
1:F:152:PHE:O	1:F:152:PHE:CD2	2.28	0.85
1:F:165:GLN:HA	1:F:211:ASP:O	1.76	0.85
1:D:301:LEU:HD21	1:D:310:PHE:CB	2.04	0.85
1:E:131:GLU:N	1:E:131:GLU:OE1	2.09	0.85
1:G:131:GLU:OE1	1:G:131:GLU:N	2.08	0.85
1:F:291:PHE:N	1:F:291:PHE:HD1	1.68	0.85
1:H:175:ILE:HA	1:H:221:LEU:HD22	1.59	0.85
1:H:204:ILE:HG22	1:H:205:TYR:CD2	2.12	0.85
1:B:112:VAL:HG12	1:B:231:ARG:NE	1.91	0.85
1:G:229:TYR:HD1	1:G:233:LEU:HD13	1.41	0.85
1:H:114:LYS:NZ	1:H:115:VAL:N	2.21	0.85
1:A:293:ILE:HD11	1:A:343:LEU:CD1	2.05	0.85
1:B:249:SER:CA	1:B:262:ARG:HH22	1.90	0.85
1:G:198:PHE:CD1	1:G:198:PHE:C	2.45	0.85
1:G:249:SER:CA	1:G:262:ARG:HH22	1.89	0.85
1:A:111:TYR:HA	1:D:115:VAL:HG23	1.59	0.85
1:A:175:ILE:HD11	1:A:193:GLY:O	1.76	0.85
1:C:278:GLN:HG3	1:C:279:LYS:H	1.42	0.85
1:D:273:GLN:NE2	1:D:273:GLN:H	1.70	0.85
1:F:182:VAL:CG2	1:F:190:THR:O	2.24	0.85
1:H:156:PHE:HE2	1:H:162:VAL:HG12	1.40	0.85
1:A:361:SER:C	1:A:365:LYS:HZ2	1.80	0.85
1:C:198:PHE:O	1:C:198:PHE:HD1	1.60	0.85
1:C:363:ILE:O	1:C:366:ARG:HG2	1.75	0.85
1:D:126:LEU:HB2	1:D:222:TRP:CZ2	2.11	0.85
1:E:259:LYS:HG3	1:E:260:TRP:N	1.92	0.85
1:F:348:LEU:HD21	1:F:356:VAL:HG21	1.57	0.85
1:D:230:ARG:O	1:D:234:MET:HB3	1.76	0.85
1:E:156:PHE:CD2	1:E:162:VAL:CG1	2.59	0.85
1:G:118:LYS:HE2	1:G:148:PHE:O	1.75	0.85
1:G:291:PHE:N	1:G:291:PHE:HD1	1.74	0.85
1:C:163:ILE:HB	1:C:213:VAL:HG23	1.59	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:170:ASP:H	1:C:209:ARG:NH2	1.75	0.84
1:D:269:LEU:HB3	1:D:346:VAL:CG2	2.07	0.84
1:E:173:TYR:HB2	1:E:198:PHE:HE1	1.42	0.84
1:F:325:ILE:HD11	2:F:402:CMP:O1P	1.76	0.84
1:C:112:VAL:O	1:F:112:VAL:CG1	2.25	0.84
1:E:279:LYS:HB2	1:E:279:LYS:HZ3	1.40	0.84
1:F:164:GLN:HA	1:F:212:THR:HG22	1.59	0.84
1:F:259:LYS:HG3	1:F:260:TRP:N	1.91	0.84
1:F:293:ILE:HD11	1:F:343:LEU:CD1	2.06	0.84
1:H:172:PHE:HB3	1:H:224:ILE:CD1	2.07	0.84
1:E:175:ILE:HA	1:E:221:LEU:HD22	1.57	0.84
1:H:251:VAL:CG1	1:H:254:LEU:HD21	2.07	0.84
1:B:165:GLN:HA	1:B:211:ASP:O	1.78	0.84
1:B:200:GLU:HG2	1:B:201:LEU:HD12	1.57	0.84
1:B:278:GLN:HG2	1:B:279:LYS:H	1.41	0.84
1:E:156:PHE:HD2	1:E:162:VAL:HG12	1.42	0.84
1:E:175:ILE:HD11	1:E:196:GLY:N	1.90	0.84
1:F:280:ILE:HD13	1:F:322:PHE:CZ	2.12	0.84
1:B:118:LYS:HB3	1:B:123:MET:HE2	1.58	0.84
1:D:188:TRP:HH2	1:D:191:SER:HG	1.21	0.84
1:H:296:GLY:O	1:H:318:PRO:HD3	1.78	0.84
1:C:293:ILE:HD11	1:C:343:LEU:CD1	2.07	0.84
1:D:301:LEU:HD23	1:D:310:PHE:CD1	2.12	0.84
1:F:114:LYS:HZ2	1:F:115:VAL:CG2	1.88	0.84
1:F:153:PRO:HB3	1:F:222:TRP:CZ3	2.12	0.84
1:A:182:VAL:HG23	1:A:182:VAL:O	1.76	0.84
1:E:190:THR:HG22	1:E:191:SER:H	1.41	0.84
1:E:300:VAL:HG21	2:E:402:CMP:C8	2.05	0.84
1:G:259:LYS:HG3	1:G:260:TRP:N	1.90	0.84
1:A:115:VAL:HG11	1:D:112:VAL:CG2	2.08	0.84
1:C:120:TYR:CB	1:D:149:ASP:OD1	2.25	0.84
1:E:278:GLN:HG3	1:E:279:LYS:H	1.43	0.84
1:F:173:TYR:HB2	1:F:198:PHE:CE1	2.13	0.84
1:F:247:PHE:CE1	1:F:294:LEU:HA	2.11	0.84
1:G:175:ILE:HD11	1:G:196:GLY:H	1.40	0.84
1:H:113:ARG:CD	1:H:114:LYS:H	1.91	0.84
1:D:139:LEU:HD12	1:D:139:LEU:N	1.91	0.84
1:D:280:ILE:HG13	1:D:281:VAL:N	1.93	0.84
1:A:350:ARG:O	1:A:353:PHE:HB3	1.78	0.84
1:H:247:PHE:HE1	1:H:294:LEU:HA	1.41	0.84
1:H:260:TRP:CE2	2:H:401:CMP:C8	2.60	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:190:THR:CG2	1:A:191:SER:H	1.91	0.83
1:D:139:LEU:HD12	1:D:139:LEU:H	1.42	0.83
1:C:179:GLU:HG2	1:C:216:LYS:CD	2.07	0.83
1:C:269:LEU:HD23	1:C:348:LEU:HD13	1.60	0.83
1:C:323:GLY:HA2	2:C:402:CMP:O1P	1.78	0.83
1:F:139:LEU:HD12	1:F:139:LEU:N	1.93	0.83
1:A:229:TYR:CE1	1:A:233:LEU:HD13	2.14	0.83
1:C:110:SER:HB3	1:F:114:LYS:CE	2.08	0.83
1:C:122:THR:O	1:C:125:ALA:HB3	1.78	0.83
1:C:173:TYR:HD2	1:C:198:PHE:CE1	1.95	0.83
1:F:230:ARG:HG2	1:F:234:MET:HE1	1.60	0.83
1:A:313:VAL:O	1:A:313:VAL:CG1	2.26	0.83
1:B:182:VAL:HG12	1:B:213:VAL:HG22	1.60	0.83
1:B:291:PHE:N	1:B:291:PHE:CD1	2.37	0.83
1:B:350:ARG:O	1:B:353:PHE:HB3	1.78	0.83
1:H:249:SER:N	1:H:262:ARG:HH22	1.75	0.83
1:A:273:GLN:HB2	1:A:343:LEU:O	1.78	0.83
1:B:230:ARG:HG2	1:B:234:MET:HE1	1.57	0.83
1:C:211:ASP:OD2	2:C:401:CMP:H3'	1.77	0.83
1:D:259:LYS:HG3	1:D:260:TRP:H	1.37	0.83
1:A:147:ILE:HG23	1:A:232:ILE:HD13	1.61	0.83
1:E:242:LYS:N	1:E:242:LYS:HD3	1.92	0.83
1:E:247:PHE:HE1	1:E:294:LEU:HA	1.42	0.83
1:F:157:ILE:CD1	1:H:243:MET:CE	2.53	0.83
1:H:179:GLU:HG2	1:H:216:LYS:CD	2.08	0.83
1:C:120:TYR:HD1	1:D:148:PHE:HB2	1.42	0.83
1:D:163:ILE:HD12	1:D:213:VAL:HB	1.59	0.83
1:D:175:ILE:HA	1:D:221:LEU:HD22	1.60	0.83
1:D:230:ARG:HG2	1:D:234:MET:HE1	1.61	0.83
1:G:148:PHE:CB	1:H:120:TYR:CD1	2.61	0.83
1:H:175:ILE:HD13	1:H:194:GLU:HA	1.60	0.83
1:H:279:LYS:HB2	1:H:279:LYS:HZ2	1.41	0.83
1:B:280:ILE:HG13	1:B:281:VAL:N	1.91	0.83
1:C:224:ILE:HD12	1:C:224:ILE:H	1.41	0.83
1:C:284:GLY:O	1:C:332:PRO:CB	2.26	0.83
1:D:249:SER:CA	1:D:262:ARG:HH22	1.91	0.83
1:C:204:ILE:HG22	1:C:205:TYR:HD2	1.40	0.83
1:F:175:ILE:HD11	1:F:196:GLY:N	1.93	0.83
1:H:156:PHE:HD2	1:H:162:VAL:CG1	1.92	0.83
1:B:324:GLU:OE2	1:B:371:TYR:HE2	1.61	0.83
1:C:312:GLU:OE1	1:C:312:GLU:HA	1.79	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:198:PHE:O	1:G:198:PHE:HD1	1.62	0.82
1:A:203:LEU:HD22	1:A:226:ARG:HB3	1.60	0.82
1:C:279:LYS:CE	1:C:336:THR:HG23	2.06	0.82
1:F:347:LYS:O	1:F:348:LEU:HD12	1.78	0.82
1:G:139:LEU:HD12	1:G:139:LEU:H	1.45	0.82
1:G:234:MET:HG3	1:G:238:LEU:HD12	1.61	0.82
1:G:266:ALA:CA	1:G:269:LEU:HD12	2.05	0.82
1:C:259:LYS:HG3	1:C:260:TRP:H	1.44	0.82
1:H:259:LYS:HG3	1:H:260:TRP:H	1.40	0.82
1:H:294:LEU:O	1:H:318:PRO:HB3	1.77	0.82
1:A:114:LYS:C	1:A:115:VAL:HG22	2.00	0.82
1:A:147:ILE:CG2	1:A:232:ILE:HD13	2.09	0.82
1:A:224:ILE:O	1:A:224:ILE:HD13	1.79	0.82
1:B:130:ILE:CG2	1:B:131:GLU:N	2.41	0.82
1:D:135:LEU:HD12	1:D:136:PHE:N	1.94	0.82
1:D:156:PHE:HD2	1:D:162:VAL:HG12	1.43	0.82
1:A:229:TYR:HD1	1:A:233:LEU:CD1	1.92	0.82
1:A:259:LYS:O	1:A:262:ARG:HG3	1.78	0.82
1:B:135:LEU:HD12	1:B:136:PHE:H	1.45	0.82
1:D:294:LEU:HD13	1:D:344:LYS:O	1.79	0.82
1:D:300:VAL:HG12	1:D:314:GLY:O	1.78	0.82
1:H:111:TYR:CG	1:H:112:VAL:N	2.46	0.82
1:C:241:ARG:NH1	1:C:263:LEU:HG	1.94	0.82
1:D:260:TRP:NE1	2:D:401:CMP:H2'	1.93	0.82
1:D:325:ILE:HG12	2:D:402:CMP:O3'	1.80	0.82
1:E:260:TRP:CE2	2:E:401:CMP:C8	2.62	0.82
1:G:279:LYS:HE3	1:G:282:VAL:HG22	1.59	0.82
1:B:165:GLN:H	1:B:212:THR:HG23	0.71	0.82
1:E:263:LEU:O	1:E:266:ALA:HB3	1.78	0.82
1:G:229:TYR:CE1	1:G:233:LEU:HD13	2.14	0.82
1:A:249:SER:N	1:A:262:ARG:NH2	2.27	0.82
1:B:263:LEU:O	1:B:266:ALA:HB3	1.77	0.82
1:C:230:ARG:O	1:C:234:MET:HB3	1.80	0.82
1:D:291:PHE:N	1:D:291:PHE:HD1	1.72	0.82
1:E:139:LEU:HD12	1:E:139:LEU:N	1.91	0.82
1:C:259:LYS:O	1:C:262:ARG:HG3	1.79	0.82
1:D:255:GLU:OE1	1:D:255:GLU:HA	1.78	0.82
1:F:269:LEU:HB3	1:F:346:VAL:HG21	1.62	0.82
1:G:347:LYS:O	1:G:348:LEU:HD12	1.80	0.82
1:G:350:ARG:O	1:G:353:PHE:HB3	1.79	0.82
1:A:228:SER:O	1:A:232:ILE:HG22	1.80	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:251:VAL:O	1:B:254:LEU:HD11	1.80	0.82
1:C:247:PHE:CE1	1:C:294:LEU:HA	2.15	0.82
1:C:350:ARG:O	1:C:353:PHE:HB3	1.79	0.82
1:D:156:PHE:CD2	1:D:162:VAL:CG1	2.60	0.82
1:F:356:VAL:HG23	1:F:357:LEU:CD1	2.09	0.82
1:H:280:ILE:HD13	1:H:322:PHE:CZ	2.15	0.82
1:A:158:ALA:HB1	1:A:216:LYS:O	1.80	0.81
1:H:266:ALA:HA	1:H:269:LEU:HD12	1.60	0.81
1:B:156:PHE:HD2	1:B:162:VAL:HG12	1.43	0.81
1:B:281:VAL:HG11	1:B:333:ARG:HD2	1.59	0.81
1:E:229:TYR:CD1	1:E:233:LEU:CD1	2.63	0.81
1:E:229:TYR:CE1	1:E:233:LEU:HD13	2.15	0.81
1:F:157:ILE:O	1:F:160:GLU:HB2	1.78	0.81
1:H:280:ILE:HD11	1:H:322:PHE:HE2	1.44	0.81
1:A:350:ARG:HB3	1:A:351:PRO:HD3	1.61	0.81
1:A:365:LYS:HA	1:A:368:ILE:HG13	1.62	0.81
1:B:211:ASP:N	1:B:211:ASP:OD1	2.13	0.81
1:B:269:LEU:HD22	1:B:346:VAL:HG21	1.62	0.81
1:B:325:ILE:HG13	1:B:326:ALA:N	1.93	0.81
1:C:120:TYR:CD1	1:D:148:PHE:CB	2.62	0.81
1:C:316:LEU:HA	1:C:320:ASP:OD2	1.81	0.81
1:D:229:TYR:CD1	1:D:233:LEU:CD1	2.63	0.81
1:D:291:PHE:CD1	1:D:347:LYS:NZ	2.48	0.81
1:E:247:PHE:CE1	1:E:294:LEU:HA	2.14	0.81
1:G:261:GLU:O	1:G:265:VAL:HG23	1.79	0.81
1:H:285:GLU:O	1:H:332:PRO:HA	1.79	0.81
1:B:179:GLU:HG2	1:B:216:LYS:CD	2.11	0.81
1:B:348:LEU:HD21	1:B:356:VAL:HG21	1.62	0.81
1:B:156:PHE:CE2	1:B:162:VAL:HG12	2.15	0.81
1:C:120:TYR:CD1	1:D:148:PHE:HB2	2.15	0.81
1:D:178:GLY:HA3	1:D:219:VAL:HG12	1.61	0.81
1:D:229:TYR:CE1	1:D:233:LEU:HD13	2.14	0.81
1:G:246:GLU:O	1:G:247:PHE:C	2.18	0.81
1:G:324:GLU:HG2	1:G:325:ILE:N	1.95	0.81
1:H:294:LEU:HD12	1:H:295:GLU:H	1.44	0.81
1:B:230:ARG:O	1:B:234:MET:CB	2.28	0.81
1:C:233:LEU:CD1	1:C:233:LEU:H	1.90	0.81
1:D:251:VAL:O	1:D:252:SER:O	1.98	0.81
1:F:230:ARG:O	1:F:234:MET:HB3	1.81	0.81
1:A:142:ASN:HB2	1:C:121:LYS:HE3	1.61	0.81
1:A:249:SER:CA	1:A:262:ARG:HH22	1.92	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:180:MET:HB2	1:C:192:VAL:HB	1.62	0.81
1:G:196:GLY:HA2	1:G:355:ARG:HH21	1.43	0.81
1:H:350:ARG:O	1:H:353:PHE:HB3	1.80	0.81
1:A:148:PHE:HB2	1:B:120:TYR:HD1	1.45	0.81
1:A:371:TYR:HE1	2:A:402:CMP:N7	1.77	0.81
1:C:111:TYR:HE1	1:F:111:TYR:CD2	1.99	0.81
1:E:292:ILE:HB	1:E:346:VAL:HG13	1.62	0.81
1:A:173:TYR:HD2	1:A:198:PHE:CE1	1.98	0.81
1:B:153:PRO:CB	1:B:222:TRP:CZ3	2.64	0.81
1:B:251:VAL:CG1	1:B:254:LEU:HD21	2.10	0.81
1:A:188:TRP:HZ3	1:A:190:THR:C	1.83	0.80
1:F:156:PHE:HD2	1:F:162:VAL:HG12	1.46	0.80
1:C:154:VAL:HG12	1:C:221:LEU:HB2	1.63	0.80
1:C:251:VAL:O	1:C:254:LEU:HD11	1.81	0.80
1:C:272:VAL:HG22	1:C:273:GLN:H	1.47	0.80
1:E:204:ILE:HG22	1:E:205:TYR:CD2	2.15	0.80
1:E:280:ILE:HG13	1:E:281:VAL:N	1.94	0.80
1:E:294:LEU:HD13	1:E:344:LYS:O	1.81	0.80
1:G:211:ASP:OD2	2:G:401:CMP:H5'1	1.82	0.80
1:A:280:ILE:HD13	1:A:322:PHE:CZ	2.16	0.80
1:A:325:ILE:HG13	1:A:326:ALA:H	1.47	0.80
1:B:371:TYR:HE1	2:B:402:CMP:C8	1.93	0.80
1:C:172:PHE:HB3	1:C:224:ILE:CD1	2.12	0.80
1:C:280:ILE:HD13	1:C:322:PHE:CZ	2.16	0.80
1:D:144:ARG:HG2	1:D:145:SER:N	1.94	0.80
1:D:353:PHE:CE1	1:D:357:LEU:CD2	2.63	0.80
1:F:279:LYS:NZ	1:F:279:LYS:CB	2.36	0.80
1:F:280:ILE:HG13	1:F:281:VAL:N	1.95	0.80
1:G:116:ILE:HG22	1:G:118:LYS:HG3	1.63	0.80
1:B:162:VAL:HG23	1:B:163:ILE:HG13	1.64	0.80
1:C:300:VAL:O	1:C:301:LEU:CD1	2.30	0.80
1:E:243:MET:CE	1:G:157:ILE:CD1	2.59	0.80
1:F:329:MET:CB	1:F:331:ARG:HG3	2.10	0.80
1:A:120:TYR:C	1:A:120:TYR:HD2	1.84	0.80
1:B:175:ILE:HD11	1:B:193:GLY:O	1.81	0.80
1:B:273:GLN:H	1:B:273:GLN:HE21	0.82	0.80
1:C:365:LYS:HA	1:C:368:ILE:HD11	1.64	0.80
1:D:198:PHE:CD1	1:D:198:PHE:C	2.53	0.80
1:D:361:SER:C	1:D:365:LYS:HZ2	1.85	0.80
1:E:123:MET:HE3	1:F:123:MET:HE2	1.63	0.80
1:G:249:SER:N	1:G:262:ARG:NH2	2.29	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:291:PHE:CE1	1:G:347:LYS:NZ	2.50	0.80
1:E:293:ILE:HG21	1:E:317:GLY:O	1.82	0.80
1:F:228:SER:O	1:F:232:ILE:HG22	1.81	0.80
1:A:251:VAL:O	1:A:254:LEU:HD11	1.80	0.80
1:A:291:PHE:N	1:A:291:PHE:CD1	2.38	0.80
1:B:229:TYR:CD1	1:B:233:LEU:CD1	2.63	0.80
1:B:249:SER:N	1:B:262:ARG:NH2	2.29	0.80
1:E:229:TYR:HD1	1:E:233:LEU:CD1	1.93	0.80
1:E:265:VAL:HG12	1:E:269:LEU:CD1	2.12	0.80
1:C:165:GLN:HA	1:C:211:ASP:O	1.81	0.80
1:C:299:ALA:HB1	1:C:312:GLU:CD	2.02	0.80
1:G:228:SER:O	1:G:232:ILE:HG22	1.82	0.80
1:G:253:ILE:HD13	1:G:321:TYR:CD2	2.17	0.80
1:A:375:VAL:HG13	1:A:376:SER:N	1.97	0.80
1:C:249:SER:N	1:C:262:ARG:HH22	1.79	0.80
1:D:224:ILE:O	1:D:224:ILE:HD13	1.82	0.80
1:B:323:GLY:HA2	2:B:402:CMP:O2P	1.82	0.80
1:B:375:VAL:CG2	1:B:376:SER:H	1.95	0.80
1:C:175:ILE:O	1:C:175:ILE:CD1	2.29	0.80
1:D:269:LEU:HD22	1:D:346:VAL:HG21	1.64	0.80
1:E:156:PHE:HE2	1:E:162:VAL:HG12	1.46	0.80
1:F:112:VAL:HG13	1:F:113:ARG:N	1.96	0.80
1:F:278:GLN:CG	1:F:279:LYS:N	2.45	0.80
1:B:229:TYR:CE1	1:B:233:LEU:HD13	2.17	0.79
1:C:278:GLN:O	1:C:338:VAL:HA	1.82	0.79
1:C:291:PHE:N	1:C:291:PHE:CD1	2.46	0.79
1:G:182:VAL:HG23	1:G:182:VAL:O	1.79	0.79
1:G:325:ILE:HG23	1:G:329:MET:HG3	1.65	0.79
1:H:279:LYS:HB2	1:H:279:LYS:HZ3	1.47	0.79
1:A:260:TRP:CD1	2:A:401:CMP:C5	2.70	0.79
1:C:287:GLY:HA3	1:C:326:ALA:HB1	1.64	0.79
1:C:371:TYR:HE1	2:C:402:CMP:C8	1.94	0.79
1:D:251:VAL:HG13	1:D:254:LEU:CD1	2.06	0.79
1:E:111:TYR:HE2	1:H:111:TYR:CE2	1.94	0.79
1:E:280:ILE:HD11	1:E:322:PHE:CE2	2.14	0.79
1:G:120:TYR:HD2	1:G:121:LYS:HA	1.46	0.79
1:H:249:SER:N	1:H:262:ARG:NH2	2.29	0.79
1:H:281:VAL:CG1	1:H:333:ARG:HD2	2.11	0.79
1:C:281:VAL:CG1	1:C:333:ARG:CD	2.59	0.79
1:E:350:ARG:O	1:E:353:PHE:HB3	1.81	0.79
1:F:324:GLU:HB2	1:F:364:LEU:HD13	1.62	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:198:PHE:CD1	1:B:198:PHE:C	2.49	0.79
1:F:175:ILE:CD1	1:F:195:GLY:H	1.95	0.79
1:A:135:LEU:CD1	1:A:136:PHE:N	2.45	0.79
1:A:253:ILE:HG13	1:A:254:LEU:H	1.47	0.79
1:C:280:ILE:CG1	1:C:337:VAL:HB	2.13	0.79
1:D:291:PHE:N	1:D:291:PHE:CD1	2.47	0.79
1:E:239:ARG:HH11	1:G:157:ILE:HG23	1.46	0.79
1:F:204:ILE:HG22	1:F:205:TYR:CD2	2.18	0.79
1:F:291:PHE:N	1:F:291:PHE:CD1	2.44	0.79
1:B:190:THR:CG2	1:B:191:SER:H	1.96	0.79
1:B:211:ASP:OD2	2:B:401:CMP:C3'	2.31	0.79
1:C:196:GLY:CA	1:C:355:ARG:NH2	2.42	0.79
1:C:294:LEU:CD1	1:C:294:LEU:H	1.95	0.79
1:C:188:TRP:CZ3	1:C:190:THR:C	2.56	0.79
1:D:112:VAL:HG12	1:D:231:ARG:CZ	2.11	0.79
1:A:165:GLN:H	1:A:212:THR:HG23	0.67	0.79
1:A:190:THR:HG22	1:A:191:SER:N	1.95	0.79
1:B:321:TYR:CD1	1:B:321:TYR:C	2.56	0.79
1:E:175:ILE:HG22	1:E:221:LEU:HD21	1.65	0.79
1:E:196:GLY:HA2	1:E:355:ARG:HH21	1.48	0.79
1:F:262:ARG:O	1:F:265:VAL:HB	1.83	0.79
1:G:348:LEU:HD21	1:G:356:VAL:HG21	1.65	0.79
1:E:291:PHE:CE1	1:E:347:LYS:NZ	2.50	0.79
1:F:134:VAL:HG11	1:F:268:ALA:HA	1.62	0.79
1:F:203:LEU:HD13	1:F:226:ARG:HB3	1.63	0.79
1:A:113:ARG:HH21	1:D:115:VAL:CG1	1.94	0.79
1:D:157:ILE:CD1	1:F:243:MET:HE3	2.12	0.79
1:E:179:GLU:HG2	1:E:216:LYS:CD	2.13	0.79
1:F:156:PHE:CD2	1:F:162:VAL:CG1	2.65	0.79
1:H:112:VAL:HG13	1:H:113:ARG:N	1.98	0.79
1:H:139:LEU:HD12	1:H:139:LEU:N	1.97	0.79
1:A:114:LYS:HG2	1:A:115:VAL:N	1.96	0.78
1:B:175:ILE:CD1	1:B:193:GLY:O	2.31	0.78
1:C:281:VAL:HG13	1:C:333:ARG:CD	2.13	0.78
1:D:120:TYR:C	1:D:120:TYR:CD2	2.54	0.78
1:D:233:LEU:HD12	1:D:233:LEU:N	1.92	0.78
1:A:156:PHE:HD2	1:A:162:VAL:HG12	1.40	0.78
1:C:269:LEU:HD23	1:C:348:LEU:CD1	2.13	0.78
1:F:172:PHE:HB3	1:F:224:ILE:CD1	2.12	0.78
1:F:269:LEU:HB3	1:F:346:VAL:HG23	1.63	0.78
1:G:116:ILE:CG2	1:G:118:LYS:HZ2	1.94	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:262:ARG:O	1:G:265:VAL:HB	1.83	0.78
1:H:249:SER:HA	1:H:262:ARG:HH22	1.48	0.78
1:H:279:LYS:NZ	1:H:279:LYS:CB	2.44	0.78
1:H:287:GLY:HA3	1:H:326:ALA:HB1	1.65	0.78
1:A:229:TYR:CD1	1:A:233:LEU:CD1	2.65	0.78
1:B:312:GLU:CD	1:B:314:GLY:H	1.85	0.78
1:C:234:MET:O	1:C:238:LEU:HD12	1.83	0.78
1:D:165:GLN:HA	1:D:211:ASP:O	1.83	0.78
1:E:204:ILE:HG22	1:E:205:TYR:HD2	1.47	0.78
1:A:172:PHE:HB3	1:A:224:ILE:CD1	2.14	0.78
1:A:201:LEU:HD12	1:A:201:LEU:H	1.49	0.78
1:A:269:LEU:HB3	1:A:346:VAL:HG21	1.64	0.78
1:B:203:LEU:HD13	1:B:226:ARG:HB3	1.63	0.78
1:B:312:GLU:OE1	1:B:312:GLU:HA	1.81	0.78
1:B:313:VAL:CG2	2:B:402:CMP:N6	2.42	0.78
1:D:269:LEU:HB3	1:D:346:VAL:HG23	1.65	0.78
1:E:260:TRP:HE1	2:E:401:CMP:H2'	1.47	0.78
1:F:196:GLY:HA2	1:F:355:ARG:HH21	1.44	0.78
1:H:280:ILE:HG13	1:H:281:VAL:H	1.48	0.78
1:E:203:LEU:HD12	1:E:229:TYR:CD2	2.19	0.78
1:F:325:ILE:HG13	1:F:326:ALA:H	1.46	0.78
1:G:120:TYR:C	1:G:120:TYR:HD2	1.87	0.78
1:G:368:ILE:O	1:G:371:TYR:HB2	1.82	0.78
1:H:328:LEU:CD2	1:H:365:LYS:HE3	2.12	0.78
1:A:266:ALA:HA	1:A:269:LEU:CD1	2.11	0.78
1:C:112:VAL:O	1:F:112:VAL:HG12	1.83	0.78
1:C:294:LEU:N	1:C:294:LEU:CD1	2.42	0.78
1:F:175:ILE:CD1	1:F:195:GLY:N	2.46	0.78
1:G:120:TYR:CD1	1:H:148:PHE:CD1	2.71	0.78
1:G:224:ILE:HD13	1:G:224:ILE:O	1.83	0.78
1:H:300:VAL:C	1:H:301:LEU:HD23	2.02	0.78
1:E:112:VAL:CG1	1:E:231:ARG:CZ	2.60	0.78
1:F:294:LEU:HD13	1:F:344:LYS:O	1.83	0.78
1:G:269:LEU:HD23	1:G:348:LEU:CD1	2.14	0.78
1:G:356:VAL:HG23	1:G:357:LEU:HD13	1.64	0.78
1:H:224:ILE:H	1:H:224:ILE:HD12	1.47	0.78
1:H:324:GLU:O	1:H:328:LEU:HD12	1.83	0.78
1:A:144:ARG:HD2	1:B:120:TYR:OH	1.84	0.78
1:C:171:ASN:HB3	1:C:224:ILE:O	1.83	0.78
1:E:203:LEU:HD13	1:E:226:ARG:HB3	1.66	0.78
1:F:242:LYS:HD3	1:F:242:LYS:N	1.90	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:158:ALA:HB1	1:H:216:LYS:O	1.84	0.78
1:H:198:PHE:O	1:H:198:PHE:HD1	1.67	0.78
1:H:224:ILE:HD12	1:H:224:ILE:N	1.99	0.78
1:H:234:MET:O	1:H:238:LEU:HD12	1.83	0.78
1:A:165:GLN:HA	1:A:211:ASP:O	1.82	0.78
1:C:324:GLU:HB2	1:C:364:LEU:HD13	1.66	0.78
1:D:203:LEU:HD22	1:D:226:ARG:HB3	1.64	0.78
1:E:249:SER:CA	1:E:262:ARG:HH22	1.97	0.78
1:F:203:LEU:HD12	1:F:229:TYR:CD2	2.19	0.78
1:G:294:LEU:HD11	1:G:345:CYS:CA	2.13	0.78
1:H:260:TRP:CD2	2:H:401:CMP:C8	2.67	0.78
1:H:293:ILE:HD11	1:H:343:LEU:CD1	2.14	0.78
1:D:112:VAL:HG12	1:D:231:ARG:NE	1.99	0.78
1:D:302:GLN:HG3	1:D:313:VAL:HG11	1.64	0.78
1:G:280:ILE:CD1	1:G:322:PHE:HE2	1.96	0.78
1:H:153:PRO:HB3	1:H:222:TRP:CZ3	2.19	0.78
1:C:293:ILE:HG21	1:C:317:GLY:O	1.84	0.77
1:E:260:TRP:CD1	2:E:401:CMP:C5	2.72	0.77
1:F:173:TYR:HB2	1:F:198:PHE:HE1	1.49	0.77
1:F:255:GLU:OE1	1:F:255:GLU:CA	2.28	0.77
1:B:325:ILE:CG1	2:B:402:CMP:O1P	2.32	0.77
1:E:175:ILE:CD1	1:E:195:GLY:N	2.47	0.77
1:G:253:ILE:HD13	1:G:321:TYR:CE2	2.18	0.77
1:H:201:LEU:H	1:H:201:LEU:HD12	1.49	0.77
1:C:204:ILE:HG12	1:C:234:MET:SD	2.24	0.77
1:E:289:GLU:HG3	1:E:347:LYS:HZ3	1.46	0.77
1:G:164:GLN:HA	1:G:212:THR:HG22	1.65	0.77
1:B:246:GLU:O	1:B:247:PHE:C	2.18	0.77
1:B:278:GLN:CG	1:B:279:LYS:N	2.39	0.77
1:E:135:LEU:HD12	1:E:136:PHE:H	1.48	0.77
1:F:300:VAL:HG21	2:F:402:CMP:H8	1.66	0.77
1:G:116:ILE:HG21	1:G:118:LYS:HZ2	1.46	0.77
1:A:301:LEU:HD13	1:A:310:PHE:CE2	2.19	0.77
1:A:316:LEU:C	1:A:316:LEU:HD12	2.05	0.77
1:B:260:TRP:HE1	2:B:401:CMP:C2'	1.97	0.77
1:E:272:VAL:HA	1:E:273:GLN:NE2	1.99	0.77
1:F:175:ILE:HD13	1:F:194:GLU:HA	1.66	0.77
1:F:246:GLU:O	1:F:247:PHE:C	2.22	0.77
1:G:203:LEU:HD22	1:G:226:ARG:HB3	1.66	0.77
1:A:224:ILE:CD1	1:A:224:ILE:N	2.48	0.77
1:A:247:PHE:HZ	1:A:293:ILE:O	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:313:VAL:HG11	2:C:402:CMP:HN61	1.50	0.77
1:H:295:GLU:HA	1:H:318:PRO:HG3	1.67	0.77
1:A:269:LEU:CD2	1:A:346:VAL:HG21	2.13	0.77
1:C:144:ARG:CG	1:C:145:SER:N	2.48	0.77
1:E:246:GLU:O	1:E:247:PHE:C	2.20	0.77
1:E:325:ILE:HG13	1:E:326:ALA:H	1.47	0.77
1:F:318:PRO:O	1:F:319:SER:HB3	1.85	0.77
1:G:179:GLU:HG2	1:G:216:LYS:CD	2.15	0.77
1:G:233:LEU:HD12	1:G:233:LEU:N	1.96	0.77
1:G:237:THR:O	1:G:241:ARG:HG3	1.84	0.77
1:C:294:LEU:CD1	1:C:344:LYS:O	2.30	0.77
1:C:325:ILE:CG1	2:C:402:CMP:O2P	2.32	0.77
1:D:198:PHE:HD1	1:D:198:PHE:O	1.67	0.77
1:E:172:PHE:HB3	1:E:224:ILE:CD1	2.15	0.77
1:E:175:ILE:CD1	1:E:195:GLY:H	1.98	0.77
1:F:180:MET:HB2	1:F:192:VAL:HB	1.67	0.77
1:H:247:PHE:CE1	1:H:294:LEU:HA	2.20	0.77
1:A:281:VAL:CG1	1:A:333:ARG:HG3	2.15	0.77
1:C:265:VAL:CG1	1:C:269:LEU:HD11	2.07	0.77
1:E:280:ILE:HD13	1:E:322:PHE:CZ	2.19	0.77
1:D:296:GLY:HA3	1:D:342:PRO:O	1.85	0.77
1:E:126:LEU:HB2	1:E:222:TRP:CZ2	2.20	0.77
1:F:325:ILE:HG13	1:F:326:ALA:N	2.00	0.77
1:G:173:TYR:HD2	1:G:198:PHE:CE1	2.03	0.77
1:A:170:ASP:H	1:A:209:ARG:NH2	1.83	0.76
1:A:324:GLU:HB2	1:A:364:LEU:CD1	2.15	0.76
1:D:229:TYR:HD1	1:D:233:LEU:HD13	1.49	0.76
1:H:285:GLU:OE1	1:H:285:GLU:CA	2.33	0.76
1:A:280:ILE:HD13	1:A:322:PHE:CE2	2.20	0.76
1:B:294:LEU:CD1	1:B:344:LYS:O	2.31	0.76
1:C:111:TYR:CD1	1:F:111:TYR:CE2	2.73	0.76
1:C:281:VAL:HG13	1:C:333:ARG:CG	2.16	0.76
1:H:188:TRP:CZ3	1:H:190:THR:C	2.58	0.76
1:H:200:GLU:OE1	1:H:201:LEU:HD12	1.84	0.76
1:B:175:ILE:HG22	1:B:221:LEU:HD21	1.66	0.76
1:E:154:VAL:HG12	1:E:221:LEU:HB2	1.66	0.76
1:E:165:GLN:HA	1:E:211:ASP:O	1.84	0.76
1:E:299:ALA:CB	1:E:312:GLU:OE2	2.33	0.76
1:F:293:ILE:HG23	1:F:318:PRO:HA	1.66	0.76
1:H:211:ASP:OD1	2:H:401:CMP:H5'1	1.85	0.76
1:A:179:GLU:HG2	1:A:216:LYS:HD2	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:110:SER:O	1:F:114:LYS:HD3	1.85	0.76
1:E:328:LEU:HD22	1:E:365:LYS:HE3	1.66	0.76
1:A:274:PHE:HD2	1:A:343:LEU:HD23	1.50	0.76
1:B:224:ILE:O	1:B:224:ILE:HD13	1.84	0.76
1:B:375:VAL:CG2	1:B:376:SER:N	2.48	0.76
1:B:376:SER:N	1:C:306:GLU:HA	1.99	0.76
1:C:252:SER:OG	1:C:253:ILE:HG23	1.84	0.76
1:C:278:GLN:O	1:C:338:VAL:HG22	1.85	0.76
1:D:157:ILE:CD1	1:F:243:MET:CE	2.63	0.76
1:D:190:THR:HG22	1:D:191:SER:N	1.99	0.76
1:E:152:PHE:HE2	1:E:223:GLY:HA3	1.51	0.76
1:E:175:ILE:HD13	1:E:194:GLU:HA	1.65	0.76
1:E:300:VAL:CG1	1:E:335:ALA:HB1	2.16	0.76
1:H:115:VAL:HG23	1:H:115:VAL:O	1.85	0.76
1:H:311:VAL:HG23	1:H:312:GLU:N	1.99	0.76
1:C:224:ILE:N	1:C:224:ILE:CD1	2.47	0.76
1:C:249:SER:CA	1:C:262:ARG:NH2	2.38	0.76
1:G:294:LEU:HD13	1:G:344:LYS:O	1.85	0.76
1:H:173:TYR:HD2	1:H:198:PHE:CZ	2.03	0.76
1:A:115:VAL:HG11	1:D:112:VAL:HG21	1.66	0.76
1:A:153:PRO:CB	1:A:222:TRP:CZ3	2.69	0.76
1:B:190:THR:HG22	1:B:191:SER:N	1.99	0.76
1:C:279:LYS:CE	1:C:336:THR:CG2	2.63	0.76
1:C:298:ALA:O	1:C:315:ARG:HA	1.85	0.76
1:E:179:GLU:HB3	1:E:217:THR:HG23	1.68	0.76
1:F:184:VAL:O	1:F:184:VAL:HG13	1.85	0.76
1:G:131:GLU:OE1	1:G:131:GLU:CA	2.24	0.76
1:G:365:LYS:HA	1:G:368:ILE:HG13	1.67	0.76
1:H:131:GLU:N	1:H:131:GLU:OE1	2.19	0.76
1:H:247:PHE:C	1:H:247:PHE:CD2	2.59	0.76
1:A:113:ARG:O	1:A:113:ARG:HG2	1.84	0.76
1:A:253:ILE:HG13	1:A:254:LEU:CD2	2.16	0.76
1:C:135:LEU:HD12	1:C:136:PHE:H	1.49	0.76
1:C:226:ARG:HH11	1:C:226:ARG:CG	1.98	0.76
1:C:280:ILE:HD11	1:C:322:PHE:HE2	1.49	0.76
1:E:243:MET:CE	1:G:157:ILE:HD12	2.15	0.76
1:F:156:PHE:HE2	1:F:162:VAL:HG12	1.50	0.76
1:F:251:VAL:HG22	1:F:319:SER:O	1.86	0.76
1:A:157:ILE:HG13	1:A:160:GLU:OE1	1.86	0.76
1:B:282:VAL:O	1:B:285:GLU:HG2	1.84	0.76
1:D:279:LYS:CB	1:D:279:LYS:HZ2	1.93	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:111:TYR:O	1:E:112:VAL:HG13	1.86	0.76
1:F:157:ILE:HG13	1:F:160:GLU:OE1	1.85	0.76
1:G:291:PHE:N	1:G:291:PHE:CD1	2.54	0.76
1:H:144:ARG:CG	1:H:145:SER:N	2.49	0.76
1:H:293:ILE:HG21	1:H:317:GLY:O	1.85	0.76
1:B:173:TYR:HD2	1:B:198:PHE:CZ	2.04	0.76
1:B:197:SER:O	1:B:198:PHE:HB3	1.85	0.76
1:C:113:ARG:HD2	1:F:112:VAL:CB	2.12	0.76
1:D:316:LEU:HA	1:D:320:ASP:OD2	1.85	0.76
1:D:325:ILE:HG13	1:D:326:ALA:H	1.50	0.76
1:E:291:PHE:N	1:E:291:PHE:CD1	2.51	0.76
1:H:260:TRP:CG	2:H:401:CMP:N7	2.54	0.76
1:B:234:MET:HG3	1:B:238:LEU:HD12	1.68	0.75
1:C:224:ILE:O	1:C:224:ILE:HD13	1.86	0.75
1:C:375:VAL:HG23	1:C:376:SER:H	1.51	0.75
1:E:134:VAL:HG11	1:E:268:ALA:HA	1.68	0.75
1:F:293:ILE:CG2	1:F:318:PRO:HA	2.15	0.75
1:H:305:SER:O	1:H:306:GLU:O	2.04	0.75
1:D:292:ILE:HB	1:D:346:VAL:HG13	1.68	0.75
1:E:112:VAL:HG12	1:E:231:ARG:NH2	2.01	0.75
1:E:329:MET:HA	1:E:329:MET:CE	2.17	0.75
1:F:260:TRP:CD1	2:F:401:CMP:C5	2.75	0.75
1:H:284:GLY:O	1:H:332:PRO:CB	2.29	0.75
1:A:324:GLU:HG2	1:A:325:ILE:H	1.51	0.75
1:D:126:LEU:HD12	1:D:126:LEU:C	2.07	0.75
1:D:196:GLY:HA2	1:D:355:ARG:HH21	1.49	0.75
1:F:224:ILE:O	1:F:224:ILE:HD13	1.85	0.75
1:G:173:TYR:HB2	1:G:198:PHE:HE1	1.47	0.75
1:C:175:ILE:HD13	1:C:194:GLU:HA	1.67	0.75
1:C:273:GLN:HE21	1:C:273:GLN:H	1.33	0.75
1:A:111:TYR:C	1:D:115:VAL:CG2	2.55	0.75
1:B:291:PHE:HD1	1:B:291:PHE:H	1.34	0.75
1:C:269:LEU:HB2	1:C:346:VAL:HG21	1.68	0.75
1:E:204:ILE:HG12	1:E:234:MET:SD	2.26	0.75
1:G:226:ARG:HH11	1:G:226:ARG:CG	1.97	0.75
1:H:113:ARG:HD3	1:H:114:LYS:H	1.49	0.75
1:A:115:VAL:CB	1:D:112:VAL:CG2	2.65	0.75
1:C:251:VAL:CG1	1:C:254:LEU:HD21	2.16	0.75
1:E:348:LEU:HD21	1:E:356:VAL:CG2	2.17	0.75
1:H:179:GLU:HG2	1:H:216:LYS:HD2	1.69	0.75
1:C:120:TYR:C	1:C:120:TYR:CD2	2.59	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:211:ASP:CG	2:C:401:CMP:H5'1	2.06	0.75
1:D:179:GLU:HG2	1:D:216:LYS:HD3	1.69	0.75
1:E:301:LEU:HD21	1:E:338:VAL:HB	1.69	0.75
1:F:126:LEU:HB2	1:F:222:TRP:CZ2	2.22	0.75
1:G:211:ASP:N	1:G:211:ASP:OD1	2.19	0.75
1:G:230:ARG:O	1:G:234:MET:HB3	1.87	0.75
1:A:118:LYS:HB3	1:A:123:MET:HE2	1.66	0.75
1:B:251:VAL:CG2	1:B:319:SER:O	2.34	0.75
1:B:298:ALA:O	1:B:316:LEU:HB2	1.87	0.75
1:D:253:ILE:CG1	1:D:254:LEU:HD13	2.16	0.75
1:D:294:LEU:CD1	1:D:344:LYS:O	2.34	0.75
1:D:371:TYR:HE1	2:D:402:CMP:C8	1.98	0.75
1:F:154:VAL:HG12	1:F:221:LEU:HB2	1.67	0.75
1:F:274:PHE:HD2	1:F:343:LEU:HD23	1.51	0.75
1:G:324:GLU:HG2	1:G:325:ILE:H	1.50	0.75
1:A:113:ARG:NH2	1:D:114:LYS:C	2.39	0.75
1:B:179:GLU:HG2	1:B:216:LYS:HD3	1.68	0.75
1:C:156:PHE:HD2	1:C:162:VAL:CG1	1.99	0.75
1:C:272:VAL:C	1:C:273:GLN:NE2	2.29	0.75
1:C:365:LYS:HA	1:C:368:ILE:CD1	2.16	0.75
1:E:200:GLU:OE2	1:E:241:ARG:NH2	2.20	0.75
1:A:325:ILE:CG1	2:A:402:CMP:O2P	2.35	0.74
1:B:375:VAL:HG22	1:B:376:SER:N	2.02	0.74
1:C:203:LEU:HD22	1:C:226:ARG:HB3	1.68	0.74
1:C:230:ARG:NH1	1:C:234:MET:HE1	2.01	0.74
1:E:184:VAL:HG13	1:E:184:VAL:O	1.85	0.74
1:E:269:LEU:CB	1:E:346:VAL:CG2	2.65	0.74
1:F:328:LEU:HD13	1:F:364:LEU:HD11	1.69	0.74
1:G:190:THR:CG2	1:G:191:SER:H	1.99	0.74
1:B:293:ILE:HD11	1:B:343:LEU:HD11	1.69	0.74
1:C:201:LEU:H	1:C:201:LEU:HD12	1.52	0.74
1:C:321:TYR:CD1	1:C:321:TYR:C	2.59	0.74
1:D:249:SER:HA	1:D:262:ARG:HH22	1.53	0.74
1:F:204:ILE:HG12	1:F:234:MET:SD	2.27	0.74
1:G:280:ILE:CD1	1:G:322:PHE:CE2	2.70	0.74
1:C:273:GLN:NE2	1:C:273:GLN:H	1.83	0.74
1:E:182:VAL:CG2	1:E:190:THR:O	2.29	0.74
1:F:294:LEU:N	1:F:294:LEU:CD1	2.49	0.74
1:G:198:PHE:CD1	1:G:198:PHE:O	2.39	0.74
1:G:295:GLU:HB2	1:G:344:LYS:HB3	1.69	0.74
1:B:278:GLN:HG2	1:B:279:LYS:N	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:293:ILE:HG13	1:H:345:CYS:SG	2.26	0.74
1:A:234:MET:HG3	1:A:238:LEU:HD12	1.69	0.74
1:A:291:PHE:CE1	1:A:347:LYS:NZ	2.56	0.74
1:C:120:TYR:HD1	1:D:148:PHE:HB3	1.53	0.74
1:C:325:ILE:HD11	2:C:402:CMP:O2P	1.85	0.74
1:D:204:ILE:HD13	1:D:238:LEU:HD11	1.68	0.74
1:D:251:VAL:CG2	1:D:319:SER:O	2.35	0.74
1:G:171:ASN:HB3	1:G:224:ILE:O	1.86	0.74
1:G:210:ALA:N	1:G:211:ASP:OD1	2.21	0.74
1:H:175:ILE:HD11	1:H:196:GLY:H	1.53	0.74
1:H:230:ARG:HG2	1:H:234:MET:HE1	1.70	0.74
1:H:269:LEU:HD22	1:H:346:VAL:HG21	1.69	0.74
1:H:293:ILE:CG2	1:H:317:GLY:O	2.36	0.74
1:A:211:ASP:OD1	1:A:211:ASP:N	2.21	0.74
1:A:253:ILE:HD13	1:A:321:TYR:CE2	2.23	0.74
1:B:300:VAL:CG1	1:B:335:ALA:HB1	2.18	0.74
1:B:313:VAL:O	1:B:313:VAL:CG2	2.35	0.74
1:B:365:LYS:HA	1:B:368:ILE:HG13	1.68	0.74
1:C:293:ILE:CG2	1:C:317:GLY:O	2.35	0.74
1:C:324:GLU:HB2	1:C:364:LEU:CD1	2.18	0.74
1:D:260:TRP:HA	1:D:263:LEU:HD12	1.70	0.74
1:D:328:LEU:HD22	1:D:365:LYS:HE3	1.69	0.74
1:E:135:LEU:HD12	1:E:136:PHE:N	2.01	0.74
1:E:353:PHE:CE1	1:E:357:LEU:CD2	2.70	0.74
1:G:261:GLU:OE2	1:G:359:PRO:HG2	1.86	0.74
1:A:114:LYS:HA	1:D:111:TYR:HE2	1.51	0.74
1:B:130:ILE:CG2	1:B:131:GLU:H	2.01	0.74
1:C:198:PHE:C	1:C:198:PHE:HD1	1.91	0.74
1:C:200:GLU:OE1	1:C:201:LEU:HD12	1.87	0.74
1:C:366:ARG:HG3	1:C:367:ASN:N	2.00	0.74
1:D:152:PHE:H	1:D:152:PHE:HD1	1.35	0.74
1:G:204:ILE:HG22	1:G:205:TYR:HD2	1.49	0.74
1:H:175:ILE:CD1	1:H:194:GLU:HA	2.17	0.74
1:A:211:ASP:OD2	2:A:401:CMP:C3'	2.36	0.74
1:C:280:ILE:HG12	1:C:337:VAL:HB	1.70	0.74
1:C:284:GLY:CA	1:C:332:PRO:HB3	2.17	0.74
1:E:347:LYS:O	1:E:348:LEU:HD12	1.87	0.74
1:F:211:ASP:OD2	2:F:401:CMP:N3	2.21	0.74
1:G:188:TRP:CZ3	1:G:190:THR:C	2.61	0.74
1:B:313:VAL:HG21	2:B:402:CMP:HN61	1.49	0.74
1:D:153:PRO:HB3	1:D:222:TRP:HZ3	1.48	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:157:ILE:O	1:E:160:GLU:HB2	1.88	0.74
1:F:306:GLU:CB	1:G:307:ASN:CB	2.65	0.74
1:A:156:PHE:CD2	1:A:162:VAL:CG1	2.70	0.74
1:A:246:GLU:O	1:A:247:PHE:C	2.20	0.74
1:B:211:ASP:CG	2:B:401:CMP:H5'1	2.07	0.74
1:B:269:LEU:HB3	1:B:346:VAL:HG23	1.66	0.74
1:C:111:TYR:CD1	1:F:111:TYR:HE2	2.06	0.74
1:C:230:ARG:NH1	1:C:234:MET:CE	2.50	0.74
1:D:192:VAL:O	1:D:192:VAL:HG12	1.88	0.74
1:D:280:ILE:HG13	1:D:281:VAL:H	1.51	0.74
1:E:123:MET:HE3	1:F:123:MET:HE3	1.68	0.74
1:E:198:PHE:CD1	1:E:198:PHE:C	2.58	0.74
1:E:243:MET:HE3	1:G:157:ILE:HD11	1.70	0.74
1:H:173:TYR:CD2	1:H:198:PHE:CE1	2.75	0.74
1:D:198:PHE:CD1	1:D:198:PHE:O	2.41	0.73
1:D:204:ILE:HG22	1:D:205:TYR:HD2	1.52	0.73
1:D:294:LEU:H	1:D:294:LEU:CD1	1.98	0.73
1:D:301:LEU:CD2	1:D:310:PHE:CD1	2.70	0.73
1:E:126:LEU:HD12	1:E:126:LEU:C	2.08	0.73
1:F:254:LEU:HD12	1:F:255:GLU:N	2.02	0.73
1:F:260:TRP:NE1	2:F:401:CMP:H2'	2.02	0.73
1:F:290:PHE:C	1:F:291:PHE:HD1	1.89	0.73
1:G:112:VAL:HG12	1:G:231:ARG:NH2	2.03	0.73
1:G:172:PHE:HB3	1:G:224:ILE:CD1	2.18	0.73
1:H:316:LEU:HA	1:H:320:ASP:OD2	1.88	0.73
1:A:144:ARG:NH1	1:A:144:ARG:HB2	2.03	0.73
1:C:113:ARG:HG3	1:F:112:VAL:HG12	1.69	0.73
1:C:175:ILE:HD11	1:C:196:GLY:H	1.53	0.73
1:C:246:GLU:O	1:C:247:PHE:C	2.23	0.73
1:F:234:MET:HG3	1:F:238:LEU:HD12	1.71	0.73
1:G:371:TYR:HE1	2:G:402:CMP:N7	1.86	0.73
1:A:112:VAL:O	1:A:231:ARG:NH1	2.21	0.73
1:A:115:VAL:CG1	1:D:112:VAL:HG23	2.19	0.73
1:A:135:LEU:HD13	1:A:136:PHE:CD1	2.23	0.73
1:A:365:LYS:CA	1:A:368:ILE:HG13	2.18	0.73
1:C:234:MET:HG3	1:C:238:LEU:CD1	2.17	0.73
1:F:114:LYS:HD2	1:F:115:VAL:H	1.52	0.73
1:F:301:LEU:HD22	1:F:311:VAL:O	1.86	0.73
1:G:183:TYR:CE1	1:G:188:TRP:HB2	2.23	0.73
1:H:233:LEU:CD1	1:H:233:LEU:H	1.95	0.73
1:A:204:ILE:HG22	1:A:205:TYR:CD2	2.24	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:162:VAL:HG22	1:D:213:VAL:O	1.88	0.73
1:E:173:TYR:CB	1:E:198:PHE:HE1	2.01	0.73
1:A:328:LEU:HD22	1:A:365:LYS:HE3	1.68	0.73
1:B:252:SER:O	1:B:254:LEU:HG	1.88	0.73
1:C:153:PRO:HB3	1:C:222:TRP:CZ3	2.24	0.73
1:C:280:ILE:HD11	1:C:337:VAL:HB	1.68	0.73
1:G:211:ASP:OD2	2:G:401:CMP:H3'	1.88	0.73
1:H:204:ILE:HG22	1:H:205:TYR:HD2	1.49	0.73
1:H:280:ILE:HB	1:H:291:PHE:HE2	1.53	0.73
1:H:291:PHE:CD2	1:H:322:PHE:CZ	2.76	0.73
1:A:111:TYR:HA	1:D:115:VAL:CG2	2.19	0.73
1:C:280:ILE:HG13	1:C:281:VAL:H	1.53	0.73
1:E:152:PHE:CD2	1:E:152:PHE:O	2.41	0.73
1:E:230:ARG:HG2	1:E:234:MET:HE1	1.69	0.73
1:F:204:ILE:HD13	1:F:238:LEU:HD11	1.69	0.73
1:H:273:GLN:HB2	1:H:343:LEU:O	1.89	0.73
1:H:280:ILE:CD1	1:H:337:VAL:HB	2.19	0.73
1:A:325:ILE:HG13	1:A:326:ALA:N	2.03	0.73
1:B:294:LEU:H	1:B:294:LEU:CD1	1.97	0.73
1:C:194:GLU:O	1:C:355:ARG:HD2	1.88	0.73
1:F:175:ILE:HD11	1:F:195:GLY:N	2.02	0.73
1:H:249:SER:CA	1:H:262:ARG:NH2	2.52	0.73
1:A:279:LYS:HB3	1:A:338:VAL:HG23	1.69	0.73
1:B:147:ILE:HG23	1:B:232:ILE:HD13	1.69	0.73
1:B:325:ILE:CD1	2:B:402:CMP:O1P	2.35	0.73
1:C:120:TYR:HD2	1:C:121:LYS:HA	1.52	0.73
1:C:130:ILE:HG23	1:C:131:GLU:N	2.04	0.73
1:C:269:LEU:HB3	1:C:346:VAL:HG22	1.70	0.73
1:C:287:GLY:HA3	1:C:326:ALA:CB	2.18	0.73
1:E:243:MET:HE1	1:G:158:ALA:O	1.88	0.73
1:E:325:ILE:HG13	1:E:326:ALA:N	2.03	0.73
1:A:260:TRP:CG	2:A:401:CMP:N7	2.57	0.73
1:B:269:LEU:HD22	1:B:346:VAL:CG2	2.19	0.73
1:B:273:GLN:HB2	1:B:343:LEU:O	1.87	0.73
1:B:312:GLU:OE1	1:B:313:VAL:N	2.21	0.73
1:C:111:TYR:O	1:C:112:VAL:CG1	2.36	0.73
1:C:275:GLU:O	1:C:339:ALA:HB3	1.89	0.73
1:E:294:LEU:O	1:E:318:PRO:HB3	1.89	0.73
1:G:148:PHE:HB3	1:H:120:TYR:CD1	2.24	0.73
1:G:161:THR:CA	1:G:214:LYS:HD2	2.18	0.73
1:A:175:ILE:HA	1:A:221:LEU:HD22	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:280:ILE:HD12	1:A:281:VAL:HG23	1.71	0.73
1:B:130:ILE:HG23	1:B:131:GLU:N	2.03	0.73
1:C:293:ILE:HG13	1:C:345:CYS:SG	2.29	0.73
1:C:371:TYR:CE1	2:C:402:CMP:C8	2.71	0.73
1:D:172:PHE:HB3	1:D:224:ILE:CD1	2.19	0.73
1:E:239:ARG:NH1	1:G:157:ILE:HG23	2.02	0.73
1:F:279:LYS:HE3	1:F:282:VAL:HG22	1.70	0.73
1:F:280:ILE:HD11	1:F:322:PHE:CE2	2.20	0.73
1:A:203:LEU:HD12	1:A:229:TYR:CD2	2.24	0.72
1:B:111:TYR:C	1:B:112:VAL:CG2	2.57	0.72
1:C:204:ILE:CG2	1:C:205:TYR:CD2	2.71	0.72
1:F:301:LEU:HD12	1:F:310:PHE:HB3	1.71	0.72
1:H:135:LEU:HD12	1:H:136:PHE:H	1.52	0.72
1:A:272:VAL:HA	1:A:273:GLN:NE2	2.03	0.72
1:B:302:GLN:O	1:B:310:PHE:HA	1.90	0.72
1:D:157:ILE:CB	1:D:218:ASN:OD1	2.36	0.72
1:G:165:GLN:HA	1:G:211:ASP:O	1.89	0.72
1:A:112:VAL:O	1:A:231:ARG:CZ	2.37	0.72
1:A:365:LYS:HA	1:A:368:ILE:CG1	2.19	0.72
1:B:135:LEU:HD13	1:B:136:PHE:CD1	2.23	0.72
1:C:283:GLN:HG3	1:C:335:ALA:N	2.04	0.72
1:D:153:PRO:CB	1:D:222:TRP:CZ3	2.73	0.72
1:E:158:ALA:N	1:E:218:ASN:OD1	2.22	0.72
1:E:179:GLU:HG2	1:E:216:LYS:HD3	1.69	0.72
1:E:265:VAL:HG12	1:E:269:LEU:CD2	2.18	0.72
1:F:328:LEU:CD2	1:F:365:LYS:HE3	2.20	0.72
1:F:328:LEU:CD1	1:F:364:LEU:HD11	2.19	0.72
1:G:152:PHE:CD2	1:G:152:PHE:O	2.42	0.72
1:H:111:TYR:CE2	1:H:112:VAL:HG12	2.24	0.72
1:H:237:THR:O	1:H:241:ARG:HG3	1.89	0.72
1:A:142:ASN:HB2	1:C:121:LYS:CE	2.20	0.72
1:B:130:ILE:HG22	1:B:131:GLU:H	1.54	0.72
1:B:172:PHE:HB3	1:B:224:ILE:CD1	2.17	0.72
1:B:280:ILE:HD11	1:B:322:PHE:CE2	2.08	0.72
1:B:327:LEU:HD23	1:B:353:PHE:CE2	2.25	0.72
1:C:152:PHE:CD2	1:C:152:PHE:O	2.42	0.72
1:C:156:PHE:CE2	1:C:162:VAL:CG1	2.60	0.72
1:C:313:VAL:HG13	1:C:313:VAL:O	1.87	0.72
1:D:156:PHE:HD2	1:D:162:VAL:CG1	2.01	0.72
1:G:233:LEU:H	1:G:233:LEU:CD1	1.87	0.72
1:B:228:SER:O	1:B:232:ILE:HG22	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:171:ASN:HB3	1:D:224:ILE:O	1.88	0.72
1:A:165:GLN:N	1:A:212:THR:CG2	2.30	0.72
1:C:280:ILE:CD1	1:C:337:VAL:HB	2.20	0.72
1:C:291:PHE:CE1	1:C:347:LYS:NZ	2.58	0.72
1:E:112:VAL:CG1	1:E:231:ARG:NH2	2.53	0.72
1:E:278:GLN:CG	1:E:279:LYS:H	2.02	0.72
1:E:324:GLU:HB2	1:E:364:LEU:HD13	1.72	0.72
1:H:120:TYR:C	1:H:120:TYR:CD2	2.63	0.72
1:H:304:ARG:H	1:H:308:GLU:CB	2.00	0.72
1:A:153:PRO:CA	1:A:222:TRP:CZ3	2.73	0.72
1:A:182:VAL:CG2	1:A:190:THR:O	2.32	0.72
1:C:281:VAL:HG13	1:C:333:ARG:HG3	1.69	0.72
1:D:131:GLU:OE1	1:D:131:GLU:CA	2.34	0.72
1:D:157:ILE:O	1:D:160:GLU:HB2	1.89	0.72
1:D:280:ILE:CD1	1:D:322:PHE:CE2	2.73	0.72
1:E:279:LYS:CB	1:E:279:LYS:HZ2	1.83	0.72
1:F:162:VAL:HG23	1:F:163:ILE:N	2.04	0.72
1:F:211:ASP:OD2	2:F:401:CMP:H3'	1.89	0.72
1:A:260:TRP:CD2	2:A:401:CMP:N7	2.57	0.72
1:A:347:LYS:O	1:A:348:LEU:HD12	1.89	0.72
1:B:203:LEU:HD12	1:B:229:TYR:CD2	2.24	0.72
1:D:120:TYR:C	1:D:120:TYR:HD2	1.92	0.72
1:D:190:THR:CG2	1:D:191:SER:H	1.97	0.72
1:E:293:ILE:CG2	1:E:317:GLY:O	2.37	0.72
1:F:280:ILE:HD11	1:F:337:VAL:HB	1.71	0.72
1:F:301:LEU:HA	1:F:311:VAL:O	1.89	0.72
1:G:328:LEU:CD2	1:G:365:LYS:HE3	2.20	0.72
1:A:175:ILE:HG22	1:A:221:LEU:HD21	1.70	0.72
1:B:152:PHE:CD2	1:B:152:PHE:O	2.43	0.72
1:B:170:ASP:H	1:B:209:ARG:NH2	1.88	0.72
1:D:290:PHE:C	1:D:291:PHE:HD1	1.92	0.72
1:E:272:VAL:HG22	1:E:273:GLN:H	1.55	0.72
1:G:148:PHE:HB2	1:H:120:TYR:CD1	2.25	0.72
1:H:265:VAL:O	1:H:269:LEU:HG	1.90	0.72
1:C:144:ARG:HG2	1:C:145:SER:N	2.03	0.72
1:C:348:LEU:HD21	1:C:356:VAL:HG21	1.72	0.72
1:E:230:ARG:O	1:E:234:MET:HB3	1.89	0.72
1:E:329:MET:HA	1:E:329:MET:HE3	1.71	0.72
1:H:198:PHE:C	1:H:198:PHE:HD1	1.88	0.72
1:A:147:ILE:HG23	1:A:232:ILE:CD1	2.19	0.71
1:A:183:TYR:CD1	1:A:188:TRP:HB2	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:222:TRP:CE3	1:A:222:TRP:HA	2.25	0.71
1:H:365:LYS:HA	1:H:368:ILE:HG13	1.71	0.71
1:A:179:GLU:HG2	1:A:216:LYS:CD	2.19	0.71
1:A:183:TYR:CE1	1:A:188:TRP:HB2	2.25	0.71
1:A:365:LYS:C	1:A:368:ILE:HG13	2.09	0.71
1:B:175:ILE:O	1:B:175:ILE:CD1	2.28	0.71
1:B:275:GLU:O	1:B:278:GLN:HB3	1.90	0.71
1:C:130:ILE:CG2	1:C:131:GLU:H	2.02	0.71
1:C:249:SER:N	1:C:262:ARG:NH2	2.39	0.71
1:G:328:LEU:HD22	1:G:365:LYS:HE3	1.72	0.71
1:H:251:VAL:HG23	1:H:319:SER:O	1.89	0.71
1:B:272:VAL:HG22	1:B:273:GLN:H	1.55	0.71
1:E:203:LEU:HD22	1:E:226:ARG:CB	2.20	0.71
1:H:184:VAL:O	1:H:184:VAL:HG13	1.88	0.71
1:C:188:TRP:CH2	1:C:190:THR:HA	2.25	0.71
1:D:368:ILE:O	1:D:371:TYR:HB2	1.90	0.71
1:E:280:ILE:CD1	1:E:281:VAL:HG23	2.20	0.71
1:F:272:VAL:HG22	1:F:273:GLN:H	1.55	0.71
1:G:253:ILE:HG21	1:G:321:TYR:CE2	2.25	0.71
1:H:270:GLU:O	1:H:346:VAL:HA	1.89	0.71
1:H:284:GLY:N	1:H:333:ARG:O	2.23	0.71
1:B:120:TYR:HD2	1:B:120:TYR:O	1.72	0.71
1:C:113:ARG:CG	1:F:112:VAL:CG1	2.59	0.71
1:F:259:LYS:HG3	1:F:260:TRP:H	1.55	0.71
1:G:280:ILE:HD11	1:G:337:VAL:HB	1.71	0.71
1:H:135:LEU:HD12	1:H:136:PHE:N	2.05	0.71
1:A:113:ARG:HH22	1:D:115:VAL:HA	1.55	0.71
1:B:247:PHE:HZ	1:B:293:ILE:O	1.73	0.71
1:D:325:ILE:HG12	2:D:402:CMP:P	2.31	0.71
1:E:183:TYR:CE1	1:E:188:TRP:HB2	2.26	0.71
1:E:251:VAL:CG2	1:E:319:SER:O	2.37	0.71
1:H:171:ASN:HB3	1:H:224:ILE:O	1.91	0.71
1:A:224:ILE:N	1:A:224:ILE:HD12	2.06	0.71
1:A:281:VAL:HG13	1:A:333:ARG:HG3	1.72	0.71
1:C:356:VAL:CG2	1:C:357:LEU:HD13	2.16	0.71
1:D:157:ILE:HD11	1:F:243:MET:HE3	1.72	0.71
1:E:156:PHE:HD2	1:E:162:VAL:CG1	1.98	0.71
1:G:278:GLN:HG2	1:G:279:LYS:H	1.56	0.71
1:G:280:ILE:HG13	1:G:281:VAL:H	1.53	0.71
1:H:313:VAL:HG11	2:H:402:CMP:HN61	1.56	0.71
1:A:156:PHE:HD2	1:A:162:VAL:CG1	2.03	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:321:TYR:C	1:A:321:TYR:CD1	2.64	0.71
1:B:157:ILE:HG22	1:B:218:ASN:OD1	1.89	0.71
1:B:158:ALA:CB	1:B:217:THR:O	2.36	0.71
1:G:148:PHE:HD1	1:H:120:TYR:CE1	2.08	0.71
1:G:278:GLN:HG2	1:G:279:LYS:N	2.06	0.71
1:G:278:GLN:CG	1:G:279:LYS:H	2.03	0.71
1:A:111:TYR:O	1:D:115:VAL:HG21	1.90	0.71
1:A:113:ARG:NH1	1:D:114:LYS:N	2.39	0.71
1:B:198:PHE:CD1	1:B:198:PHE:O	2.43	0.71
1:B:210:ALA:N	1:B:211:ASP:OD1	2.23	0.71
1:C:300:VAL:O	1:C:301:LEU:CG	2.38	0.71
1:D:175:ILE:HD13	1:D:194:GLU:HA	1.70	0.71
1:G:265:VAL:O	1:G:269:LEU:CG	2.32	0.71
1:H:179:GLU:HG2	1:H:216:LYS:HD3	1.71	0.71
1:H:253:ILE:HG13	1:H:254:LEU:N	2.03	0.71
1:H:259:LYS:O	1:H:262:ARG:HG3	1.89	0.71
1:H:260:TRP:HE1	2:H:401:CMP:C2'	1.99	0.71
1:A:175:ILE:CD1	1:A:193:GLY:O	2.38	0.71
1:C:298:ALA:HB1	1:C:338:VAL:O	1.91	0.71
1:F:278:GLN:HG3	1:F:279:LYS:N	2.03	0.71
1:G:126:LEU:HB2	1:G:222:TRP:CZ2	2.26	0.71
1:G:282:VAL:O	1:G:285:GLU:HG2	1.91	0.71
1:A:239:ARG:NH2	1:C:156:PHE:CE1	2.58	0.70
1:A:251:VAL:CG1	1:A:254:LEU:HD21	2.20	0.70
1:A:294:LEU:CD1	1:A:344:LYS:O	2.38	0.70
1:C:130:ILE:HG23	1:C:131:GLU:H	1.54	0.70
1:C:182:VAL:CG2	1:C:190:THR:H	2.02	0.70
1:C:283:GLN:HG3	1:C:334:ALA:C	2.11	0.70
1:H:198:PHE:CD1	1:H:198:PHE:O	2.43	0.70
1:A:293:ILE:CD1	1:A:343:LEU:HD11	2.21	0.70
1:B:175:ILE:HD11	1:B:195:GLY:N	2.05	0.70
1:B:211:ASP:OD2	2:B:401:CMP:C4'	2.40	0.70
1:B:293:ILE:HG13	1:B:345:CYS:SG	2.30	0.70
1:C:182:VAL:HG12	1:C:213:VAL:CG1	2.19	0.70
1:C:230:ARG:HG2	1:C:230:ARG:HH11	1.56	0.70
1:D:224:ILE:CD1	1:D:224:ILE:N	2.52	0.70
1:F:260:TRP:CD1	2:F:401:CMP:C4	2.79	0.70
1:H:220:LYS:O	1:H:221:LEU:HD23	1.91	0.70
1:H:328:LEU:HD23	1:H:365:LYS:HE3	1.71	0.70
1:A:140:ASP:C	1:A:140:ASP:OD1	2.29	0.70
1:A:197:SER:O	1:A:198:PHE:HB3	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:114:LYS:CD	1:F:115:VAL:H	2.05	0.70
1:F:293:ILE:CD1	1:F:343:LEU:HD11	2.21	0.70
1:G:116:ILE:CG2	1:G:118:LYS:NZ	2.53	0.70
1:A:182:VAL:HG12	1:A:213:VAL:CG2	2.21	0.70
1:A:251:VAL:CG2	1:A:319:SER:O	2.38	0.70
1:B:175:ILE:CD1	1:B:195:GLY:H	2.04	0.70
1:D:246:GLU:O	1:D:249:SER:N	2.24	0.70
1:E:162:VAL:CG2	1:E:163:ILE:HG13	2.16	0.70
1:F:200:GLU:OE2	1:F:241:ARG:NH2	2.24	0.70
1:G:117:PRO:O	1:G:118:LYS:HB2	1.90	0.70
1:G:365:LYS:C	1:G:368:ILE:HG13	2.11	0.70
1:H:230:ARG:NH1	1:H:234:MET:HE1	2.05	0.70
1:D:282:VAL:O	1:D:285:GLU:HG2	1.91	0.70
1:D:327:LEU:HD23	1:D:353:PHE:CD2	2.26	0.70
1:F:179:GLU:HG2	1:F:216:LYS:HD2	1.73	0.70
1:G:324:GLU:HB2	1:G:364:LEU:CD1	2.20	0.70
1:H:301:LEU:O	1:H:302:GLN:HG3	1.91	0.70
1:D:211:ASP:OD1	2:D:401:CMP:H5'1	1.91	0.70
1:E:175:ILE:HD11	1:E:195:GLY:N	2.05	0.70
1:G:175:ILE:HD13	1:G:194:GLU:HA	1.71	0.70
1:C:300:VAL:HG11	2:C:402:CMP:C8	2.21	0.70
1:D:280:ILE:HD11	1:D:337:VAL:HB	1.72	0.70
1:G:135:LEU:HD12	1:G:136:PHE:N	2.06	0.70
1:G:361:SER:C	1:G:365:LYS:HZ2	1.94	0.70
1:H:247:PHE:CD2	1:H:247:PHE:O	2.44	0.70
1:H:291:PHE:N	1:H:291:PHE:CD1	2.59	0.70
1:H:329:MET:HA	1:H:329:MET:HE3	1.73	0.70
1:A:130:ILE:CD1	1:A:151:MET:CE	2.70	0.70
1:A:348:LEU:HD21	1:A:356:VAL:HG21	1.71	0.70
1:B:295:GLU:O	1:B:344:LYS:N	2.23	0.70
1:E:153:PRO:HB3	1:E:222:TRP:CZ3	2.27	0.70
1:E:278:GLN:CG	1:E:279:LYS:N	2.55	0.70
1:F:230:ARG:CG	1:F:234:MET:HE1	2.21	0.70
1:G:135:LEU:HD12	1:G:136:PHE:H	1.56	0.70
1:B:246:GLU:O	1:B:249:SER:N	2.24	0.70
1:C:265:VAL:O	1:C:269:LEU:CG	2.31	0.70
1:E:211:ASP:OD1	2:E:401:CMP:H5'1	1.91	0.70
1:B:280:ILE:HG13	1:B:281:VAL:H	1.56	0.70
1:D:269:LEU:HD22	1:D:346:VAL:HG22	1.73	0.70
1:G:182:VAL:HG12	1:G:213:VAL:HG22	1.73	0.70
1:A:203:LEU:HD13	1:A:226:ARG:HB3	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:230:ARG:HG2	1:A:234:MET:HE1	1.71	0.69
1:C:183:TYR:HD1	1:C:188:TRP:HA	1.57	0.69
1:C:285:GLU:O	1:C:332:PRO:CA	2.36	0.69
1:C:311:VAL:HG23	1:C:312:GLU:N	2.07	0.69
1:D:252:SER:O	1:D:254:LEU:HD22	1.91	0.69
1:D:325:ILE:CD1	2:D:402:CMP:OI1P	2.39	0.69
1:G:156:PHE:HD2	1:G:162:VAL:HG12	1.56	0.69
1:G:175:ILE:CD1	1:G:195:GLY:H	2.05	0.69
1:H:234:MET:HG3	1:H:238:LEU:CD1	2.20	0.69
1:H:253:ILE:HG13	1:H:254:LEU:CD2	2.21	0.69
1:A:175:ILE:O	1:A:175:ILE:CD1	2.29	0.69
1:A:224:ILE:CD1	1:A:224:ILE:H	2.04	0.69
1:B:198:PHE:O	1:B:198:PHE:HD1	1.75	0.69
1:C:224:ILE:H	1:C:224:ILE:CD1	2.04	0.69
1:D:162:VAL:CG2	1:D:163:ILE:HG13	2.18	0.69
1:D:280:ILE:CD1	1:D:322:PHE:HE2	2.05	0.69
1:D:285:GLU:OE1	1:D:285:GLU:HA	1.93	0.69
1:E:245:GLU:OE1	1:E:246:GLU:OE1	2.08	0.69
1:G:279:LYS:CB	1:G:279:LYS:HZ2	1.98	0.69
1:H:203:LEU:HD12	1:H:229:TYR:CD2	2.27	0.69
1:A:263:LEU:O	1:A:267:ASP:N	2.24	0.69
1:B:140:ASP:C	1:B:140:ASP:OD1	2.31	0.69
1:C:174:VAL:O	1:C:174:VAL:HG13	1.90	0.69
1:C:365:LYS:O	1:C:368:ILE:CG1	2.39	0.69
1:D:194:GLU:O	1:D:355:ARG:HD2	1.92	0.69
1:H:182:VAL:HG12	1:H:213:VAL:CG2	2.22	0.69
1:D:222:TRP:CE3	1:D:222:TRP:HA	2.26	0.69
1:F:130:ILE:HG13	1:F:136:PHE:CG	2.27	0.69
1:F:158:ALA:HB2	1:F:217:THR:C	2.12	0.69
1:G:179:GLU:HG2	1:G:216:LYS:HD3	1.74	0.69
1:G:266:ALA:CA	1:G:269:LEU:CD1	2.68	0.69
1:G:275:GLU:O	1:G:278:GLN:HB3	1.92	0.69
1:H:347:LYS:O	1:H:348:LEU:HD12	1.93	0.69
1:A:282:VAL:O	1:A:285:GLU:HG2	1.93	0.69
1:D:259:LYS:O	1:D:262:ARG:CG	2.33	0.69
1:D:329:MET:CE	1:D:329:MET:HA	2.21	0.69
1:E:116:ILE:HG22	1:E:118:LYS:HG3	1.74	0.69
1:F:222:TRP:CE3	1:F:222:TRP:HA	2.27	0.69
1:F:328:LEU:HD22	1:F:365:LYS:HE3	1.74	0.69
1:H:288:ASP:OD1	1:H:288:ASP:O	2.10	0.69
1:H:329:MET:HA	1:H:329:MET:CE	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:266:ALA:HA	1:B:269:LEU:CD1	2.23	0.69
1:C:247:PHE:C	1:C:247:PHE:CD2	2.63	0.69
1:C:266:ALA:CA	1:C:269:LEU:CD1	2.66	0.69
1:F:266:ALA:HA	1:F:269:LEU:HD12	1.74	0.69
1:A:204:ILE:HG22	1:A:205:TYR:HD2	1.57	0.69
1:A:253:ILE:HG21	1:A:321:TYR:CE2	2.27	0.69
1:B:153:PRO:CA	1:B:222:TRP:CZ3	2.75	0.69
1:C:190:THR:CG2	1:C:191:SER:H	2.03	0.69
1:D:164:GLN:HA	1:D:212:THR:HG22	1.75	0.69
1:G:152:PHE:O	1:G:152:PHE:HD2	1.74	0.69
1:G:175:ILE:O	1:G:175:ILE:CD1	2.32	0.69
1:G:280:ILE:HD11	1:G:322:PHE:HE2	1.56	0.69
1:G:280:ILE:HD13	1:G:322:PHE:CZ	2.27	0.69
1:G:298:ALA:HB1	1:G:338:VAL:O	1.93	0.69
1:A:188:TRP:CH2	1:A:190:THR:HA	2.27	0.69
1:A:323:GLY:HA2	2:A:402:CMP:O1P	1.93	0.69
1:B:135:LEU:HD12	1:B:136:PHE:N	2.07	0.69
1:B:161:THR:CA	1:B:214:LYS:HD2	2.17	0.69
1:B:211:ASP:OD2	2:B:401:CMP:H5'1	1.91	0.69
1:B:280:ILE:HD11	1:B:337:VAL:HB	1.73	0.69
1:C:327:LEU:HD23	1:C:353:PHE:CE2	2.27	0.69
1:D:153:PRO:CB	1:D:222:TRP:HZ3	2.05	0.69
1:D:161:THR:CA	1:D:214:LYS:HD2	2.20	0.69
1:D:173:TYR:HB2	1:D:198:PHE:CE1	2.27	0.69
1:D:296:GLY:CA	1:D:342:PRO:O	2.40	0.69
1:D:298:ALA:CB	1:D:338:VAL:O	2.38	0.69
1:E:152:PHE:H	1:E:152:PHE:HD2	1.39	0.69
1:E:253:ILE:HG21	1:E:321:TYR:CE2	2.27	0.69
1:F:253:ILE:HG13	1:F:254:LEU:H	1.57	0.69
1:H:144:ARG:O	1:H:147:ILE:HG12	1.93	0.69
1:H:156:PHE:HD2	1:H:162:VAL:HG12	1.45	0.69
1:H:289:GLU:HB3	1:H:347:LYS:HZ1	1.56	0.69
1:H:365:LYS:HA	1:H:368:ILE:CG1	2.23	0.69
1:D:183:TYR:CE1	1:D:188:TRP:HB2	2.28	0.69
1:F:158:ALA:N	1:F:218:ASN:OD1	2.25	0.69
1:F:260:TRP:CE2	2:F:401:CMP:C8	2.76	0.69
1:G:148:PHE:HB2	1:H:120:TYR:HD1	1.55	0.69
1:H:222:TRP:HA	1:H:222:TRP:CE3	2.26	0.69
1:B:361:SER:C	1:B:365:LYS:HZ2	1.96	0.69
1:C:173:TYR:CD2	1:C:198:PHE:CZ	2.80	0.69
1:E:224:ILE:O	1:E:224:ILE:HD13	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:111:TYR:O	1:A:112:VAL:CG2	2.40	0.68
1:B:171:ASN:H	1:B:209:ARG:HH22	1.41	0.68
1:E:148:PHE:CD1	1:F:120:TYR:CD1	2.80	0.68
1:E:365:LYS:HA	1:E:368:ILE:HG13	1.75	0.68
1:G:371:TYR:CE1	2:G:402:CMP:C4	2.81	0.68
1:H:224:ILE:CD1	1:H:224:ILE:H	2.06	0.68
1:H:226:ARG:HH11	1:H:226:ARG:CG	2.02	0.68
1:H:300:VAL:O	1:H:312:GLU:HB2	1.93	0.68
1:B:321:TYR:CD1	1:B:321:TYR:O	2.46	0.68
1:C:300:VAL:N	1:C:312:GLU:OE2	2.25	0.68
1:D:173:TYR:HD2	1:D:198:PHE:CE1	2.11	0.68
1:E:116:ILE:N	1:E:149:ASP:O	2.25	0.68
1:E:123:MET:CE	1:F:123:MET:CE	2.72	0.68
1:G:182:VAL:CG2	1:G:190:THR:H	2.06	0.68
1:G:253:ILE:HG13	1:G:254:LEU:H	1.57	0.68
1:H:249:SER:HA	1:H:262:ARG:NH2	2.08	0.68
1:A:183:TYR:CD1	1:A:188:TRP:CB	2.77	0.68
1:B:254:LEU:C	1:B:254:LEU:HD12	2.13	0.68
1:C:233:LEU:HD12	1:C:233:LEU:N	2.06	0.68
1:D:123:MET:O	1:D:127:ALA:N	2.20	0.68
1:E:360:CYS:O	1:E:364:LEU:HD23	1.92	0.68
1:G:157:ILE:O	1:G:160:GLU:HB2	1.92	0.68
1:G:251:VAL:CG2	1:G:319:SER:O	2.39	0.68
1:G:371:TYR:HE1	2:G:402:CMP:C5	2.09	0.68
1:H:182:VAL:O	1:H:182:VAL:CG2	2.37	0.68
1:H:283:GLN:HG3	1:H:335:ALA:N	2.09	0.68
1:H:290:PHE:C	1:H:291:PHE:HD1	1.97	0.68
1:B:183:TYR:CE1	1:B:188:TRP:HB2	2.29	0.68
1:F:174:VAL:HG23	1:F:196:GLY:O	1.94	0.68
1:H:301:LEU:HA	1:H:311:VAL:O	1.94	0.68
1:A:126:LEU:HB2	1:A:222:TRP:CZ2	2.28	0.68
1:A:209:ARG:HD2	2:A:401:CMP:O5'	1.93	0.68
1:B:135:LEU:CD1	1:B:136:PHE:N	2.57	0.68
1:B:254:LEU:HD12	1:B:255:GLU:N	2.09	0.68
1:B:269:LEU:CB	1:B:346:VAL:HG21	2.20	0.68
1:C:173:TYR:CD2	1:C:198:PHE:CE1	2.80	0.68
1:E:300:VAL:HA	1:E:336:THR:O	1.93	0.68
1:F:265:VAL:O	1:F:269:LEU:HG	1.93	0.68
1:G:269:LEU:HB3	1:G:346:VAL:CG2	2.23	0.68
1:H:118:LYS:HB2	1:H:123:MET:HE1	1.75	0.68
1:H:190:THR:CG2	1:H:191:SER:H	2.00	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:324:GLU:HB2	1:B:364:LEU:CD1	2.24	0.68
1:F:260:TRP:NE1	2:F:401:CMP:C2'	2.57	0.68
1:H:365:LYS:HA	1:H:368:ILE:CD1	2.24	0.68
1:B:279:LYS:O	1:B:279:LYS:HG3	1.91	0.68
1:C:297:SER:HA	1:C:316:LEU:O	1.94	0.68
1:E:148:PHE:CD1	1:F:120:TYR:CE1	2.82	0.68
1:F:156:PHE:HD2	1:F:162:VAL:CG1	2.02	0.68
1:F:280:ILE:HD12	1:F:281:VAL:HG23	1.74	0.68
1:G:272:VAL:C	1:G:273:GLN:NE2	2.46	0.68
1:H:282:VAL:O	1:H:285:GLU:HG2	1.94	0.68
1:H:294:LEU:CD1	1:H:295:GLU:H	2.01	0.68
1:H:294:LEU:O	1:H:295:GLU:HG3	1.93	0.68
1:A:164:GLN:HA	1:A:212:THR:HG22	1.76	0.68
1:B:111:TYR:CG	1:B:112:VAL:N	2.47	0.68
1:C:144:ARG:O	1:C:147:ILE:HG12	1.94	0.68
1:C:230:ARG:CG	1:C:234:MET:HE1	2.23	0.68
1:D:278:GLN:HG3	1:D:279:LYS:H	1.58	0.68
1:E:253:ILE:HD13	1:E:321:TYR:CD2	2.29	0.68
1:E:294:LEU:HD13	1:E:345:CYS:HA	1.74	0.68
1:F:114:LYS:HD2	1:F:115:VAL:N	2.09	0.68
1:G:203:LEU:HD12	1:G:229:TYR:CD2	2.29	0.68
1:H:112:VAL:HG22	1:H:113:ARG:N	2.08	0.68
1:H:183:TYR:CE1	1:H:188:TRP:HB2	2.28	0.68
1:A:327:LEU:HD23	1:A:353:PHE:CE1	2.29	0.68
1:D:229:TYR:HD1	1:D:233:LEU:CD1	2.03	0.68
1:D:254:LEU:HD22	1:D:255:GLU:N	2.09	0.68
1:D:263:LEU:O	1:D:266:ALA:HB3	1.94	0.68
1:D:266:ALA:HA	1:D:269:LEU:HD12	1.76	0.68
1:F:135:LEU:HD12	1:F:135:LEU:N	2.08	0.68
1:F:226:ARG:HH11	1:F:226:ARG:CG	1.98	0.68
1:F:249:SER:CA	1:F:262:ARG:HH22	2.06	0.68
1:F:353:PHE:CE1	1:F:357:LEU:HD22	2.29	0.68
1:G:230:ARG:HG2	1:G:234:MET:HE1	1.74	0.68
1:A:152:PHE:O	1:A:152:PHE:CD2	2.47	0.68
1:C:183:TYR:CE1	1:C:188:TRP:HB2	2.28	0.68
1:C:290:PHE:C	1:C:291:PHE:HD1	1.96	0.68
1:C:362:ASP:N	1:C:365:LYS:NZ	2.42	0.68
1:D:126:LEU:O	1:D:126:LEU:CD1	2.32	0.68
1:D:254:LEU:HD13	1:D:254:LEU:H	1.59	0.68
1:D:275:GLU:O	1:D:278:GLN:HB3	1.94	0.68
1:E:300:VAL:HG12	1:E:335:ALA:HB1	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:200:GLU:OE2	1:G:241:ARG:NH2	2.26	0.68
1:H:120:TYR:HD2	1:H:121:LYS:HA	1.58	0.68
1:A:260:TRP:HA	1:A:263:LEU:HD12	1.76	0.67
1:A:275:GLU:O	1:A:278:GLN:HB3	1.94	0.67
1:B:157:ILE:HG13	1:B:160:GLU:OE1	1.94	0.67
1:C:118:LYS:HB2	1:C:123:MET:HE1	1.76	0.67
1:C:196:GLY:HA2	1:C:355:ARG:HH21	1.57	0.67
1:C:294:LEU:O	1:C:295:GLU:HG3	1.93	0.67
1:C:361:SER:C	1:C:365:LYS:HZ2	1.97	0.67
1:D:135:LEU:CD1	1:D:136:PHE:H	2.03	0.67
1:D:203:LEU:HD13	1:D:226:ARG:HB3	1.77	0.67
1:D:278:GLN:CG	1:D:279:LYS:H	2.07	0.67
1:E:328:LEU:HD23	1:E:365:LYS:HE3	1.74	0.67
1:F:112:VAL:HG22	1:F:113:ARG:N	2.09	0.67
1:F:131:GLU:OE1	1:F:132:LYS:N	2.28	0.67
1:G:116:ILE:HB	1:G:118:LYS:NZ	2.09	0.67
1:G:157:ILE:HB	1:G:218:ASN:OD1	1.94	0.67
1:H:170:ASP:H	1:H:209:ARG:NH2	1.92	0.67
1:H:224:ILE:CD1	1:H:224:ILE:N	2.55	0.67
1:H:288:ASP:OD1	1:H:288:ASP:C	2.23	0.67
1:A:112:VAL:CG2	1:D:115:VAL:HG21	2.21	0.67
1:A:226:ARG:HH11	1:A:226:ARG:CG	2.05	0.67
1:D:348:LEU:HD21	1:D:356:VAL:HG21	1.76	0.67
1:F:173:TYR:CB	1:F:198:PHE:HE1	2.07	0.67
1:F:177:GLN:HA	1:F:194:GLU:CG	2.24	0.67
1:F:249:SER:N	1:F:262:ARG:HH22	1.91	0.67
1:H:246:GLU:O	1:H:247:PHE:C	2.30	0.67
1:A:183:TYR:HD1	1:A:188:TRP:HA	1.58	0.67
1:A:230:ARG:O	1:A:234:MET:HB2	1.93	0.67
1:B:281:VAL:HG11	1:B:333:ARG:CD	2.23	0.67
1:C:115:VAL:CA	1:C:149:ASP:HB3	2.21	0.67
1:D:294:LEU:HD11	1:D:345:CYS:CA	2.17	0.67
1:F:130:ILE:HG21	1:F:148:PHE:HE2	1.59	0.67
1:F:275:GLU:O	1:F:278:GLN:HB3	1.94	0.67
1:G:260:TRP:CD1	2:G:401:CMP:C5	2.83	0.67
1:H:200:GLU:OE1	1:H:201:LEU:CD1	2.42	0.67
1:B:175:ILE:HD11	1:B:196:GLY:H	1.60	0.67
1:B:188:TRP:CZ3	1:B:190:THR:C	2.67	0.67
1:D:262:ARG:O	1:D:265:VAL:HB	1.94	0.67
1:E:131:GLU:OE1	1:E:131:GLU:CA	2.42	0.67
1:E:175:ILE:HD12	1:E:195:GLY:H	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:266:ALA:O	1:F:267:ASP:C	2.31	0.67
1:G:274:PHE:CE2	1:G:280:ILE:HG22	2.30	0.67
1:H:371:TYR:CE1	2:H:402:CMP:C5	2.82	0.67
1:B:224:ILE:CD1	1:B:224:ILE:N	2.57	0.67
1:E:163:ILE:HD12	1:E:213:VAL:HB	1.76	0.67
1:F:300:VAL:HG21	2:F:402:CMP:C8	2.24	0.67
1:G:263:LEU:O	1:G:266:ALA:HB3	1.94	0.67
1:G:278:GLN:CG	1:G:279:LYS:N	2.56	0.67
1:H:299:ALA:HA	1:H:314:GLY:O	1.95	0.67
1:A:120:TYR:CE1	1:B:148:PHE:CD1	2.81	0.67
1:B:130:ILE:CD1	1:B:151:MET:CE	2.73	0.67
1:C:158:ALA:HB2	1:C:217:THR:O	1.94	0.67
1:C:283:GLN:CA	1:C:333:ARG:O	2.40	0.67
1:E:173:TYR:HD2	1:E:198:PHE:CE1	2.12	0.67
1:F:365:LYS:HA	1:F:368:ILE:HG13	1.76	0.67
1:G:120:TYR:HD1	1:H:148:PHE:CD1	2.12	0.67
1:G:246:GLU:O	1:G:249:SER:N	2.26	0.67
1:B:278:GLN:O	1:B:338:VAL:HG22	1.94	0.67
1:B:300:VAL:HG12	1:B:335:ALA:HB1	1.77	0.67
1:D:224:ILE:CD1	1:D:224:ILE:H	2.06	0.67
1:F:114:LYS:CD	1:F:115:VAL:N	2.58	0.67
1:F:175:ILE:HD12	1:F:195:GLY:H	1.57	0.67
1:G:230:ARG:NH1	1:G:234:MET:HE1	2.10	0.67
1:A:175:ILE:HD11	1:A:196:GLY:H	1.58	0.67
1:A:211:ASP:CG	2:A:401:CMP:H5'	2.15	0.67
1:B:126:LEU:HD12	1:B:126:LEU:C	2.15	0.67
1:D:247:PHE:C	1:D:247:PHE:CD2	2.68	0.67
1:E:243:MET:HE1	1:G:157:ILE:HD12	1.75	0.67
1:G:149:ASP:OD1	1:H:120:TYR:CB	2.43	0.67
1:G:294:LEU:CD1	1:G:344:LYS:O	2.41	0.67
1:B:135:LEU:HD12	1:B:135:LEU:N	2.10	0.67
1:B:175:ILE:CD1	1:B:194:GLU:CA	2.73	0.67
1:B:226:ARG:HH11	1:B:226:ARG:CG	2.06	0.67
1:C:237:THR:O	1:C:241:ARG:HG3	1.95	0.67
1:F:198:PHE:C	1:F:198:PHE:CD1	2.66	0.67
1:F:203:LEU:HD22	1:F:226:ARG:HB3	1.76	0.67
1:G:175:ILE:HD11	1:G:195:GLY:N	2.10	0.67
1:G:260:TRP:NE1	2:G:401:CMP:H2'	2.07	0.67
1:H:287:GLY:HA3	1:H:326:ALA:CB	2.24	0.67
1:H:293:ILE:HG23	1:H:318:PRO:HA	1.77	0.67
1:A:158:ALA:HB2	1:A:217:THR:O	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:153:PRO:HB3	1:B:222:TRP:HZ3	1.55	0.67
1:B:253:ILE:HG13	1:B:254:LEU:N	2.08	0.67
1:C:293:ILE:CD1	1:C:343:LEU:HD11	2.22	0.67
1:D:247:PHE:HE1	1:D:294:LEU:CA	2.04	0.67
1:D:249:SER:N	1:D:262:ARG:NH2	2.43	0.67
1:E:158:ALA:HB2	1:E:217:THR:C	2.15	0.67
1:G:365:LYS:HA	1:G:368:ILE:CG1	2.25	0.67
1:A:239:ARG:HH22	1:C:156:PHE:HD1	1.42	0.66
1:A:350:ARG:O	1:A:353:PHE:N	2.28	0.66
1:C:274:PHE:CE2	1:C:280:ILE:HG22	2.30	0.66
1:C:353:PHE:O	1:C:357:LEU:HB2	1.93	0.66
1:D:192:VAL:O	1:D:192:VAL:CG1	2.42	0.66
1:D:298:ALA:O	1:D:316:LEU:HD22	1.94	0.66
1:E:182:VAL:HG12	1:E:213:VAL:HG22	1.76	0.66
1:E:325:ILE:CD1	2:E:402:CMP:O2P	2.38	0.66
1:G:126:LEU:HD12	1:G:126:LEU:C	2.15	0.66
1:G:153:PRO:CB	1:G:222:TRP:CZ3	2.78	0.66
1:H:188:TRP:CH2	1:H:190:THR:HA	2.30	0.66
1:H:279:LYS:HZ3	1:H:279:LYS:CB	2.06	0.66
1:H:365:LYS:C	1:H:368:ILE:HG13	2.16	0.66
1:B:252:SER:O	1:B:253:ILE:CG1	2.43	0.66
1:D:136:PHE:O	1:D:139:LEU:HD11	1.95	0.66
1:D:228:SER:O	1:D:232:ILE:HG22	1.96	0.66
1:D:245:GLU:OE1	1:D:246:GLU:OE1	2.12	0.66
1:H:273:GLN:N	1:H:273:GLN:CD	2.49	0.66
1:A:254:LEU:HD12	1:A:254:LEU:C	2.15	0.66
1:A:269:LEU:CD2	1:A:346:VAL:CG2	2.72	0.66
1:B:179:GLU:HG2	1:B:216:LYS:HD2	1.76	0.66
1:C:269:LEU:HB3	1:C:346:VAL:HG21	1.68	0.66
1:D:179:GLU:HG2	1:D:216:LYS:CD	2.26	0.66
1:D:300:VAL:HG22	1:D:335:ALA:HB1	1.76	0.66
1:D:316:LEU:HD22	1:D:316:LEU:O	1.95	0.66
1:E:280:ILE:HD13	1:E:322:PHE:CE2	2.29	0.66
1:F:252:SER:O	1:F:255:GLU:HB2	1.95	0.66
1:G:175:ILE:HA	1:G:221:LEU:HD22	1.76	0.66
1:G:269:LEU:HD23	1:G:348:LEU:HD13	1.76	0.66
1:B:296:GLY:O	1:B:318:PRO:HD3	1.96	0.66
1:D:183:TYR:HD1	1:D:188:TRP:HA	1.59	0.66
1:E:173:TYR:HD2	1:E:198:PHE:CZ	2.13	0.66
1:F:203:LEU:HD12	1:F:229:TYR:HD2	1.58	0.66
1:A:198:PHE:O	1:A:198:PHE:CD1	2.39	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:210:ALA:N	1:A:211:ASP:OD1	2.28	0.66
1:A:290:PHE:C	1:A:291:PHE:HD1	1.98	0.66
1:B:324:GLU:O	1:B:328:LEU:CD1	2.37	0.66
1:D:165:GLN:N	1:D:212:THR:CG2	2.38	0.66
1:F:131:GLU:OE1	1:F:131:GLU:N	2.28	0.66
1:F:144:ARG:CG	1:F:145:SER:N	2.58	0.66
1:F:158:ALA:O	1:H:243:MET:SD	2.54	0.66
1:F:175:ILE:O	1:F:175:ILE:CD1	2.34	0.66
1:G:283:GLN:HB2	1:G:336:THR:OG1	1.96	0.66
1:H:260:TRP:HZ2	2:H:401:CMP:HO2'	1.44	0.66
1:A:175:ILE:CD1	1:A:194:GLU:CA	2.72	0.66
1:B:173:TYR:HD2	1:B:198:PHE:CE1	2.12	0.66
1:B:331:ARG:NH2	1:B:376:SER:HB3	2.11	0.66
1:D:365:LYS:C	1:D:368:ILE:HG13	2.15	0.66
1:E:152:PHE:HE2	1:E:223:GLY:CA	2.08	0.66
1:G:162:VAL:CG2	1:G:163:ILE:HG13	2.22	0.66
1:H:230:ARG:NH1	1:H:234:MET:CE	2.58	0.66
1:H:327:LEU:HD23	1:H:353:PHE:CE2	2.30	0.66
1:A:375:VAL:HG13	1:A:376:SER:H	1.61	0.66
1:C:200:GLU:OE1	1:C:201:LEU:CD1	2.43	0.66
1:C:243:MET:CE	1:E:157:ILE:CD1	2.58	0.66
1:C:243:MET:SD	1:E:158:ALA:O	2.54	0.66
1:C:258:ASP:O	1:C:262:ARG:CG	2.43	0.66
1:C:353:PHE:CE1	1:C:357:LEU:CD2	2.78	0.66
1:F:254:LEU:HD12	1:F:254:LEU:C	2.15	0.66
1:A:253:ILE:HD13	1:A:321:TYR:CD2	2.29	0.66
1:A:261:GLU:OE2	1:A:359:PRO:HG2	1.96	0.66
1:A:285:GLU:OE1	1:A:285:GLU:HA	1.96	0.66
1:B:184:VAL:HG13	1:B:184:VAL:O	1.95	0.66
1:D:278:GLN:CG	1:D:279:LYS:N	2.58	0.66
1:D:371:TYR:CD1	2:D:402:CMP:C5	2.84	0.66
1:E:260:TRP:CD1	2:E:401:CMP:C4	2.83	0.66
1:F:247:PHE:C	1:F:247:PHE:CD2	2.69	0.66
1:G:365:LYS:CA	1:G:368:ILE:HG13	2.26	0.66
1:H:302:GLN:C	1:H:310:PHE:CE1	2.69	0.66
1:A:253:ILE:HG13	1:A:254:LEU:HD23	1.78	0.66
1:A:280:ILE:HB	1:A:291:PHE:HE2	1.61	0.66
1:B:242:LYS:N	1:B:242:LYS:HD3	2.09	0.66
1:B:263:LEU:O	1:B:267:ASP:N	2.27	0.66
1:F:144:ARG:HG2	1:F:145:SER:N	2.11	0.66
1:F:179:GLU:HB3	1:F:217:THR:HG23	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:321:TYR:CD1	1:F:321:TYR:C	2.69	0.66
1:C:152:PHE:HE2	1:C:223:GLY:HA3	1.59	0.66
1:C:175:ILE:CD1	1:C:193:GLY:O	2.44	0.66
1:C:347:LYS:O	1:C:348:LEU:HD12	1.96	0.66
1:D:251:VAL:O	1:D:254:LEU:HD21	1.96	0.66
1:E:243:MET:HE2	1:G:159:GLY:O	1.96	0.66
1:E:247:PHE:C	1:E:247:PHE:CD2	2.69	0.66
1:E:295:GLU:O	1:E:344:LYS:N	2.29	0.66
1:F:114:LYS:NZ	1:F:115:VAL:HG23	2.11	0.66
1:F:230:ARG:O	1:F:234:MET:CB	2.44	0.66
1:G:175:ILE:CD1	1:G:195:GLY:N	2.59	0.66
1:G:260:TRP:HA	1:G:263:LEU:HD12	1.78	0.66
1:H:365:LYS:HA	1:H:368:ILE:HD11	1.78	0.66
1:A:148:PHE:HB2	1:B:120:TYR:CD1	2.31	0.65
1:B:153:PRO:HB3	1:B:222:TRP:CH2	2.31	0.65
1:B:200:GLU:CG	1:B:201:LEU:CD1	2.74	0.65
1:C:148:PHE:CD1	1:D:120:TYR:CD1	2.84	0.65
1:C:371:TYR:HE1	2:C:402:CMP:N7	1.94	0.65
1:E:321:TYR:CD1	1:E:321:TYR:C	2.69	0.65
1:G:224:ILE:CD1	1:G:224:ILE:N	2.59	0.65
1:H:266:ALA:O	1:H:269:LEU:N	2.24	0.65
1:A:222:TRP:HA	1:A:222:TRP:HE3	1.62	0.65
1:B:312:GLU:OE2	1:B:314:GLY:N	2.29	0.65
1:C:263:LEU:O	1:C:266:ALA:HB3	1.96	0.65
1:C:292:ILE:HB	1:C:346:VAL:HG13	1.78	0.65
1:D:274:PHE:CE2	1:D:280:ILE:HG22	2.31	0.65
1:F:178:GLY:H	1:F:194:GLU:HG3	1.61	0.65
1:F:224:ILE:N	1:F:224:ILE:HD12	2.10	0.65
1:G:293:ILE:CG1	1:G:345:CYS:SG	2.75	0.65
1:H:298:ALA:HB1	1:H:338:VAL:O	1.95	0.65
1:A:280:ILE:HG13	1:A:281:VAL:H	1.60	0.65
1:A:324:GLU:O	1:A:328:LEU:HD12	1.97	0.65
1:B:203:LEU:HD12	1:B:229:TYR:HD2	1.61	0.65
1:B:265:VAL:O	1:B:269:LEU:HG	1.96	0.65
1:B:278:GLN:HG3	1:B:279:LYS:H	1.60	0.65
1:C:111:TYR:O	1:C:112:VAL:HG13	1.97	0.65
1:F:245:GLU:OE1	1:F:246:GLU:OE1	2.12	0.65
1:H:126:LEU:HB2	1:H:222:TRP:CZ2	2.31	0.65
1:H:222:TRP:HA	1:H:222:TRP:HE3	1.60	0.65
1:H:273:GLN:CB	1:H:343:LEU:O	2.44	0.65
1:A:115:VAL:CG1	1:D:112:VAL:CG2	2.73	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:272:VAL:HG22	1:A:273:GLN:N	2.09	0.65
1:A:362:ASP:N	1:A:365:LYS:HZ2	1.94	0.65
1:B:183:TYR:HD1	1:B:188:TRP:HA	1.62	0.65
1:B:301:LEU:HB2	1:B:336:THR:HB	1.77	0.65
1:F:173:TYR:HD2	1:F:198:PHE:CE1	2.14	0.65
1:C:251:VAL:HG23	1:C:319:SER:O	1.95	0.65
1:E:198:PHE:CD1	1:E:198:PHE:O	2.49	0.65
1:E:296:GLY:HA2	1:E:342:PRO:HG2	1.79	0.65
1:F:170:ASP:H	1:F:209:ARG:NH2	1.94	0.65
1:G:179:GLU:HG2	1:G:216:LYS:HD2	1.77	0.65
1:G:269:LEU:HD23	1:G:348:LEU:HD11	1.78	0.65
1:G:329:MET:HA	1:G:329:MET:CE	2.26	0.65
1:G:375:VAL:HG12	1:G:376:SER:H	1.59	0.65
1:H:175:ILE:CD1	1:H:193:GLY:O	2.45	0.65
1:H:247:PHE:HE1	1:H:294:LEU:CA	2.10	0.65
1:A:229:TYR:HD1	1:A:233:LEU:HD13	1.42	0.65
1:A:272:VAL:CA	1:A:273:GLN:NE2	2.60	0.65
1:A:350:ARG:O	1:A:353:PHE:CB	2.44	0.65
1:B:153:PRO:HA	1:B:222:TRP:CE3	2.31	0.65
1:B:161:THR:HA	1:B:214:LYS:CD	2.19	0.65
1:B:222:TRP:CE3	1:B:222:TRP:HA	2.31	0.65
1:B:294:LEU:HD11	1:B:345:CYS:CA	2.19	0.65
1:D:135:LEU:CD1	1:D:136:PHE:N	2.60	0.65
1:D:151:MET:HA	1:D:224:ILE:HG22	1.77	0.65
1:D:246:GLU:O	1:D:247:PHE:C	2.35	0.65
1:E:120:TYR:C	1:E:120:TYR:CD2	2.68	0.65
1:E:246:GLU:O	1:E:249:SER:N	2.30	0.65
1:E:353:PHE:HE1	1:E:357:LEU:HD22	1.61	0.65
1:F:173:TYR:HD2	1:F:198:PHE:CZ	2.14	0.65
1:H:252:SER:O	1:H:255:GLU:HB2	1.96	0.65
1:H:269:LEU:CB	1:H:346:VAL:HG21	2.25	0.65
1:A:115:VAL:HG11	1:D:112:VAL:HG23	1.78	0.65
1:A:184:VAL:O	1:A:184:VAL:HG13	1.95	0.65
1:A:280:ILE:HD11	1:A:337:VAL:HB	1.78	0.65
1:B:294:LEU:O	1:B:318:PRO:HB3	1.96	0.65
1:B:327:LEU:HD23	1:B:353:PHE:CD2	2.32	0.65
1:B:366:ARG:HG2	1:B:367:ASN:N	2.12	0.65
1:C:300:VAL:O	1:C:301:LEU:HG	1.96	0.65
1:F:183:TYR:CE1	1:F:188:TRP:HB2	2.31	0.65
1:F:289:GLU:CG	1:F:347:LYS:NZ	2.55	0.65
1:A:356:VAL:HG23	1:A:357:LEU:N	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:165:GLN:N	1:B:212:THR:CG2	2.38	0.65
1:B:325:ILE:HG13	2:B:402:CMP:O1P	1.96	0.65
1:C:209:ARG:HD2	2:C:401:CMP:O5'	1.97	0.65
1:C:253:ILE:HG13	1:C:254:LEU:N	2.08	0.65
1:D:293:ILE:CG1	1:D:345:CYS:SG	2.80	0.65
1:D:327:LEU:HD23	1:D:353:PHE:CE2	2.32	0.65
1:F:114:LYS:HZ1	1:F:115:VAL:HG23	1.61	0.65
1:G:198:PHE:C	1:G:198:PHE:HD1	1.91	0.65
1:B:118:LYS:CB	1:B:123:MET:HE2	2.27	0.65
1:D:111:TYR:OH	1:D:113:ARG:C	2.35	0.65
1:D:222:TRP:HA	1:D:222:TRP:HE3	1.62	0.65
1:G:184:VAL:HG13	1:G:184:VAL:O	1.96	0.65
1:G:301:LEU:HD13	1:G:310:PHE:CB	2.26	0.65
1:H:365:LYS:CA	1:H:368:ILE:HG13	2.27	0.65
1:A:113:ARG:HG2	1:D:113:ARG:O	1.97	0.65
1:A:158:ALA:N	1:A:218:ASN:OD1	2.28	0.65
1:C:152:PHE:O	1:C:152:PHE:HD2	1.79	0.65
1:C:252:SER:O	1:C:255:GLU:HB2	1.97	0.65
1:D:234:MET:O	1:D:238:LEU:HD12	1.97	0.65
1:D:328:LEU:CD2	1:D:365:LYS:HE3	2.26	0.65
1:A:113:ARG:NE	1:D:113:ARG:C	2.51	0.64
1:A:280:ILE:HD11	1:A:322:PHE:CE2	2.22	0.64
1:B:188:TRP:CH2	1:B:190:THR:HA	2.31	0.64
1:B:233:LEU:HD12	1:B:233:LEU:N	2.02	0.64
1:B:260:TRP:CD1	2:B:401:CMP:C4	2.84	0.64
1:F:224:ILE:CD1	1:F:224:ILE:N	2.59	0.64
1:G:203:LEU:HD13	1:G:226:ARG:HB3	1.78	0.64
1:A:131:GLU:OE1	1:A:131:GLU:CA	2.42	0.64
1:B:224:ILE:CD1	1:B:224:ILE:H	2.10	0.64
1:F:272:VAL:O	1:F:345:CYS:N	2.27	0.64
1:H:356:VAL:CG2	1:H:357:LEU:HD13	2.19	0.64
1:B:287:GLY:HA3	1:B:326:ALA:HB1	1.79	0.64
1:C:182:VAL:O	1:C:182:VAL:CG2	2.42	0.64
1:E:164:GLN:HA	1:E:212:THR:CG2	2.25	0.64
1:E:325:ILE:O	1:E:328:LEU:N	2.31	0.64
1:F:262:ARG:HA	1:F:265:VAL:CG2	2.27	0.64
1:F:274:PHE:CD2	1:F:343:LEU:HD23	2.32	0.64
1:A:260:TRP:HE1	2:A:401:CMP:H2'	1.60	0.64
1:B:224:ILE:HD13	1:B:224:ILE:H	1.61	0.64
1:B:272:VAL:HA	1:B:273:GLN:NE2	2.12	0.64
1:C:260:TRP:CE2	2:C:401:CMP:C8	2.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:312:GLU:OE1	1:C:312:GLU:CA	2.46	0.64
1:D:188:TRP:CH2	1:D:190:THR:HA	2.33	0.64
1:E:253:ILE:HG13	1:E:254:LEU:H	1.61	0.64
1:E:254:LEU:HD12	1:E:255:GLU:N	2.12	0.64
1:F:211:ASP:CG	2:F:401:CMP:H5'1	2.18	0.64
1:B:252:SER:O	1:B:253:ILE:HG13	1.97	0.64
1:B:293:ILE:HG21	1:B:317:GLY:O	1.97	0.64
1:B:375:VAL:HG23	1:B:376:SER:H	1.63	0.64
1:D:273:GLN:HB2	1:D:343:LEU:O	1.98	0.64
1:D:321:TYR:C	1:D:321:TYR:CD1	2.71	0.64
1:D:325:ILE:HG13	1:D:326:ALA:N	2.13	0.64
1:E:224:ILE:HD12	1:E:224:ILE:N	2.12	0.64
1:F:205:TYR:HD2	1:F:205:TYR:N	1.96	0.64
1:G:272:VAL:HA	1:G:273:GLN:NE2	2.11	0.64
1:H:246:GLU:O	1:H:249:SER:N	2.30	0.64
1:A:114:LYS:HA	1:D:111:TYR:CE2	2.32	0.64
1:A:200:GLU:OE2	1:A:241:ARG:NH2	2.31	0.64
1:B:356:VAL:CG2	1:B:357:LEU:HD13	2.20	0.64
1:C:184:VAL:O	1:C:184:VAL:HG13	1.97	0.64
1:C:325:ILE:CD1	2:C:402:CMP:O2P	2.45	0.64
1:E:260:TRP:HE1	2:E:401:CMP:C2'	2.10	0.64
1:E:272:VAL:CA	1:E:273:GLN:NE2	2.60	0.64
1:F:152:PHE:HE2	1:F:223:GLY:CA	2.07	0.64
1:F:233:LEU:HD12	1:F:233:LEU:N	2.05	0.64
1:F:233:LEU:H	1:F:233:LEU:CD1	2.02	0.64
1:G:290:PHE:C	1:G:291:PHE:HD1	2.01	0.64
1:B:147:ILE:CG2	1:B:232:ILE:HD13	2.26	0.64
1:B:152:PHE:O	1:B:152:PHE:HD2	1.81	0.64
1:C:120:TYR:CE1	1:D:148:PHE:HD1	2.11	0.64
1:C:130:ILE:CG2	1:C:131:GLU:N	2.60	0.64
1:C:147:ILE:HG13	1:C:148:PHE:HD2	1.63	0.64
1:C:365:LYS:C	1:C:368:ILE:HG13	2.17	0.64
1:E:230:ARG:O	1:E:234:MET:CB	2.45	0.64
1:H:263:LEU:O	1:H:266:ALA:HB3	1.98	0.64
1:B:135:LEU:CD1	1:B:136:PHE:H	2.11	0.64
1:C:279:LYS:HB3	1:C:338:VAL:HG23	1.78	0.64
1:E:260:TRP:CG	2:E:401:CMP:C5	2.85	0.64
1:E:289:GLU:HG3	1:E:347:LYS:HZ1	1.60	0.64
1:F:153:PRO:CB	1:F:222:TRP:CZ3	2.81	0.64
1:G:156:PHE:CD2	1:G:162:VAL:HG12	2.32	0.64
1:H:260:TRP:NE1	2:H:401:CMP:C2'	2.60	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:291:PHE:N	1:H:291:PHE:HD1	1.93	0.64
1:H:335:ALA:HB3	2:H:402:CMP:H5'1	1.80	0.64
1:D:325:ILE:CG1	2:D:402:CMP:O1P	2.46	0.64
1:E:183:TYR:CD1	1:E:188:TRP:HB2	2.33	0.64
1:E:280:ILE:HD11	1:E:337:VAL:HB	1.79	0.64
1:E:280:ILE:HB	1:E:291:PHE:HE2	1.63	0.64
1:F:113:ARG:CD	1:F:146:ASP:CG	2.63	0.64
1:F:165:GLN:CA	1:F:211:ASP:O	2.45	0.64
1:F:198:PHE:CD1	1:F:198:PHE:N	2.64	0.64
1:F:329:MET:HA	1:F:329:MET:CE	2.27	0.64
1:G:272:VAL:CA	1:G:273:GLN:NE2	2.61	0.64
1:A:173:TYR:CD2	1:A:198:PHE:HE1	2.16	0.64
1:E:274:PHE:HD2	1:E:343:LEU:HD23	1.62	0.64
1:E:313:VAL:HG22	1:E:313:VAL:O	1.98	0.64
1:B:260:TRP:CG	2:B:401:CMP:N7	2.66	0.63
1:C:260:TRP:HE1	2:C:401:CMP:C2'	2.09	0.63
1:E:162:VAL:HG23	1:E:163:ILE:N	2.12	0.63
1:E:177:GLN:HA	1:E:194:GLU:CG	2.28	0.63
1:E:328:LEU:CD1	1:E:364:LEU:HD11	2.28	0.63
1:H:272:VAL:CA	1:H:273:GLN:HE21	2.00	0.63
1:H:363:ILE:O	1:H:366:ARG:HG2	1.98	0.63
1:A:183:TYR:CE1	1:A:188:TRP:CB	2.81	0.63
1:A:316:LEU:HA	1:A:320:ASP:OD2	1.98	0.63
1:A:375:VAL:CG1	1:A:376:SER:N	2.61	0.63
1:B:183:TYR:CD1	1:B:188:TRP:HB2	2.33	0.63
1:B:200:GLU:HG2	1:B:201:LEU:CG	2.28	0.63
1:B:312:GLU:OE1	1:B:312:GLU:CA	2.46	0.63
1:C:211:ASP:OD2	2:C:401:CMP:N3	2.32	0.63
1:C:222:TRP:HA	1:C:222:TRP:CE3	2.33	0.63
1:E:239:ARG:NH2	1:G:156:PHE:HD1	1.96	0.63
1:E:272:VAL:HA	1:E:273:GLN:HE22	1.60	0.63
1:E:361:SER:C	1:E:365:LYS:HZ2	2.02	0.63
1:F:163:ILE:HD12	1:F:213:VAL:HB	1.81	0.63
1:H:260:TRP:HA	1:H:263:LEU:HD12	1.80	0.63
1:B:111:TYR:O	1:B:112:VAL:CG2	2.42	0.63
1:B:126:LEU:HB2	1:B:222:TRP:CZ2	2.34	0.63
1:D:350:ARG:O	1:D:353:PHE:HB3	1.97	0.63
1:E:179:GLU:HG2	1:E:216:LYS:HD2	1.78	0.63
1:E:280:ILE:HG13	1:E:281:VAL:HG23	1.80	0.63
1:E:284:GLY:O	1:E:332:PRO:HB3	1.98	0.63
1:B:156:PHE:HD2	1:B:162:VAL:CG1	2.10	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:164:GLN:HA	1:B:212:THR:HG22	1.80	0.63
1:D:153:PRO:CA	1:D:222:TRP:CZ3	2.81	0.63
1:E:178:GLY:H	1:E:194:GLU:HG3	1.63	0.63
1:E:328:LEU:HD13	1:E:364:LEU:HD11	1.81	0.63
1:G:154:VAL:HG12	1:G:221:LEU:HB2	1.80	0.63
1:G:175:ILE:HD12	1:G:195:GLY:H	1.63	0.63
1:G:183:TYR:HD1	1:G:188:TRP:HA	1.64	0.63
1:H:183:TYR:HD1	1:H:188:TRP:HA	1.63	0.63
1:A:274:PHE:CD2	1:A:343:LEU:HD23	2.33	0.63
1:B:200:GLU:HG2	1:B:201:LEU:HG	1.80	0.63
1:E:246:GLU:O	1:E:248:LEU:N	2.31	0.63
1:G:165:GLN:N	1:G:212:THR:CG2	2.42	0.63
1:G:183:TYR:CD1	1:G:188:TRP:HB2	2.34	0.63
1:H:204:ILE:CG2	1:H:205:TYR:CD2	2.81	0.63
1:B:280:ILE:HD13	1:B:322:PHE:HZ	1.63	0.63
1:C:110:SER:HB3	1:F:114:LYS:NZ	2.13	0.63
1:C:247:PHE:CD2	1:C:247:PHE:O	2.51	0.63
1:C:253:ILE:HG13	1:C:254:LEU:CD2	2.27	0.63
1:C:285:GLU:OE1	1:C:285:GLU:HA	1.98	0.63
1:E:224:ILE:CD1	1:E:224:ILE:N	2.61	0.63
1:F:135:LEU:HD12	1:F:136:PHE:H	1.62	0.63
1:F:183:TYR:HD1	1:F:188:TRP:HA	1.63	0.63
1:G:162:VAL:HG22	1:G:213:VAL:O	1.99	0.63
1:G:262:ARG:HA	1:G:265:VAL:CG2	2.29	0.63
1:H:203:LEU:HD13	1:H:226:ARG:HB3	1.80	0.63
1:A:114:LYS:HG3	1:A:115:VAL:N	2.01	0.63
1:C:164:GLN:HA	1:C:212:THR:HG22	1.81	0.63
1:D:188:TRP:CZ3	1:D:190:THR:C	2.71	0.63
1:E:269:LEU:HD23	1:E:348:LEU:CD1	2.28	0.63
1:E:308:GLU:C	1:E:309:GLU:HG2	2.17	0.63
1:E:350:ARG:HB3	1:E:351:PRO:HD3	1.81	0.63
1:F:290:PHE:HB2	1:F:327:LEU:CD2	2.29	0.63
1:F:301:LEU:CD1	1:F:310:PHE:HB3	2.28	0.63
1:B:175:ILE:CD1	1:B:195:GLY:N	2.62	0.63
1:F:247:PHE:HZ	1:F:293:ILE:O	1.81	0.63
1:G:224:ILE:N	1:G:224:ILE:HD12	2.13	0.63
1:G:324:GLU:O	1:G:328:LEU:HD12	1.97	0.63
1:H:281:VAL:CG1	1:H:333:ARG:CD	2.76	0.63
1:A:237:THR:O	1:A:241:ARG:HG3	1.98	0.63
1:A:295:GLU:O	1:A:343:LEU:HD12	1.98	0.63
1:B:157:ILE:CB	1:B:218:ASN:OD1	2.47	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:274:PHE:HD2	1:B:343:LEU:HD23	1.64	0.63
1:B:365:LYS:CA	1:B:368:ILE:HG13	2.29	0.63
1:C:135:LEU:HD13	1:C:136:PHE:CD1	2.34	0.63
1:C:258:ASP:O	1:C:262:ARG:HG2	1.98	0.63
1:D:269:LEU:HB3	1:D:346:VAL:HG21	1.79	0.63
1:E:188:TRP:CZ3	1:E:190:THR:C	2.71	0.63
1:H:294:LEU:HG	1:H:344:LYS:O	1.98	0.63
1:A:272:VAL:HA	1:A:273:GLN:HE22	1.62	0.62
1:B:324:GLU:OE2	1:B:371:TYR:CE2	2.47	0.62
1:B:350:ARG:HB3	1:B:351:PRO:CD	2.25	0.62
1:C:276:ASP:HA	1:C:339:ALA:O	1.99	0.62
1:D:211:ASP:OD2	2:D:401:CMP:N3	2.32	0.62
1:D:253:ILE:HD13	1:D:321:TYR:CD2	2.34	0.62
1:D:362:ASP:OD1	1:D:362:ASP:N	2.30	0.62
1:F:272:VAL:HA	1:F:273:GLN:NE2	2.14	0.62
1:F:280:ILE:HG13	1:F:281:VAL:H	1.61	0.62
1:H:229:TYR:HE1	1:H:233:LEU:HD13	1.62	0.62
1:A:260:TRP:CD2	2:A:401:CMP:C8	2.82	0.62
1:B:175:ILE:HD12	1:B:195:GLY:H	1.64	0.62
1:B:253:ILE:HG13	1:B:254:LEU:CD2	2.29	0.62
1:D:116:ILE:HG22	1:D:118:LYS:HG3	1.81	0.62
1:D:198:PHE:C	1:D:198:PHE:HD1	1.98	0.62
1:D:247:PHE:HZ	1:D:293:ILE:O	1.82	0.62
1:E:296:GLY:HA3	1:E:342:PRO:O	1.99	0.62
1:F:204:ILE:HG22	1:F:205:TYR:HD2	1.61	0.62
1:G:265:VAL:HA	1:G:356:VAL:HG11	1.79	0.62
1:G:273:GLN:HE21	1:G:273:GLN:CA	2.07	0.62
1:H:173:TYR:HB2	1:H:198:PHE:CE1	2.34	0.62
1:A:176:ASP:O	1:A:194:GLU:HG2	1.99	0.62
1:C:279:LYS:CE	1:C:282:VAL:HG22	2.30	0.62
1:C:365:LYS:O	1:C:368:ILE:N	2.27	0.62
1:D:365:LYS:HA	1:D:368:ILE:HG13	1.80	0.62
1:F:126:LEU:HD12	1:F:126:LEU:C	2.19	0.62
1:F:153:PRO:CA	1:F:222:TRP:CZ3	2.82	0.62
1:F:284:GLY:O	1:F:332:PRO:HB3	2.00	0.62
1:H:130:ILE:CD1	1:H:136:PHE:CD2	2.82	0.62
1:H:165:GLN:HA	1:H:211:ASP:O	1.99	0.62
1:A:153:PRO:HA	1:A:222:TRP:CE3	2.34	0.62
1:B:248:LEU:CB	1:B:262:ARG:HH21	2.13	0.62
1:C:116:ILE:HB	1:C:149:ASP:O	2.00	0.62
1:C:157:ILE:HD12	1:C:157:ILE:C	2.16	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:120:TYR:HE2	1:D:124:ALA:HB2	1.64	0.62
1:D:298:ALA:HB3	1:D:316:LEU:HD21	1.80	0.62
1:E:211:ASP:OD2	2:E:401:CMP:N3	2.32	0.62
1:F:222:TRP:HA	1:F:222:TRP:HE3	1.61	0.62
1:G:111:TYR:CD1	1:G:112:VAL:N	2.66	0.62
1:A:255:GLU:OE1	1:A:255:GLU:CA	2.37	0.62
1:B:156:PHE:CD2	1:B:162:VAL:CG1	2.78	0.62
1:B:279:LYS:NZ	1:B:279:LYS:CB	2.62	0.62
1:E:174:VAL:HG23	1:E:196:GLY:O	1.98	0.62
1:E:279:LYS:CB	1:E:279:LYS:HZ3	2.03	0.62
1:F:230:ARG:CB	1:F:234:MET:HE1	2.29	0.62
1:G:175:ILE:HD11	1:G:196:GLY:N	2.13	0.62
1:H:202:ALA:HB1	1:H:207:THR:O	2.00	0.62
1:A:154:VAL:O	1:A:221:LEU:N	2.28	0.62
1:A:366:ARG:HG2	1:A:367:ASN:N	2.15	0.62
1:C:118:LYS:CB	1:C:123:MET:HE1	2.30	0.62
1:C:302:GLN:O	1:C:310:PHE:CD1	2.52	0.62
1:C:325:ILE:CD1	1:C:334:ALA:HB3	2.28	0.62
1:D:253:ILE:HG21	1:D:321:TYR:CE2	2.35	0.62
1:E:211:ASP:OD2	2:E:401:CMP:C3'	2.44	0.62
1:E:266:ALA:CA	1:E:269:LEU:HD12	2.19	0.62
1:G:116:ILE:HB	1:G:118:LYS:HZ3	1.63	0.62
1:G:253:ILE:CG2	1:G:321:TYR:HE2	2.12	0.62
1:H:325:ILE:CG1	2:H:402:CMP:O1P	2.47	0.62
1:C:174:VAL:HG13	1:C:222:TRP:HB2	1.80	0.62
1:C:260:TRP:CD1	2:C:401:CMP:C5	2.87	0.62
1:D:347:LYS:O	1:D:348:LEU:CD1	2.46	0.62
1:D:356:VAL:CG2	1:D:357:LEU:CD1	2.73	0.62
1:E:116:ILE:CG2	1:E:118:LYS:HZ2	2.11	0.62
1:G:247:PHE:HZ	1:G:293:ILE:O	1.81	0.62
1:G:265:VAL:HG12	1:G:269:LEU:HD21	1.80	0.62
1:H:162:VAL:CG2	1:H:163:ILE:HG13	2.29	0.62
1:H:283:GLN:HA	1:H:333:ARG:O	2.00	0.62
1:H:353:PHE:CE1	1:H:357:LEU:CD2	2.82	0.62
1:A:242:LYS:HD3	1:A:242:LYS:N	2.09	0.62
1:A:247:PHE:HE1	1:A:294:LEU:CA	2.06	0.62
1:A:311:VAL:HG22	1:A:312:GLU:N	2.15	0.62
1:C:158:ALA:N	1:C:218:ASN:OD1	2.33	0.62
1:C:230:ARG:HG2	1:C:230:ARG:NH1	2.15	0.62
1:D:162:VAL:HG23	1:D:163:ILE:N	2.15	0.62
1:E:198:PHE:O	1:E:198:PHE:HD1	1.83	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:259:LYS:HG3	1:E:260:TRP:H	1.63	0.62
1:G:152:PHE:HE2	1:G:223:GLY:HA3	1.65	0.62
1:H:260:TRP:CD1	2:H:401:CMP:C5	2.88	0.62
1:A:115:VAL:HB	1:D:112:VAL:CG2	2.29	0.62
1:B:248:LEU:HB2	1:B:262:ARG:HH21	1.65	0.62
1:C:243:MET:HE1	1:E:158:ALA:O	2.00	0.62
1:D:234:MET:HG3	1:D:238:LEU:CD1	2.28	0.62
1:E:366:ARG:HG3	1:E:367:ASN:N	2.15	0.62
1:F:182:VAL:HG12	1:F:213:VAL:HG22	1.81	0.62
1:G:292:ILE:HB	1:G:346:VAL:HG13	1.81	0.62
1:H:246:GLU:HA	1:H:249:SER:OG	1.99	0.62
1:A:173:TYR:HD2	1:A:198:PHE:CZ	2.18	0.62
1:A:175:ILE:HD11	1:A:195:GLY:N	2.15	0.62
1:B:375:VAL:O	1:B:376:SER:OXT	2.18	0.62
1:C:247:PHE:HE1	1:C:294:LEU:CA	2.08	0.62
1:C:265:VAL:HG12	1:C:269:LEU:HD21	1.82	0.62
1:C:296:GLY:O	1:C:318:PRO:HD3	1.99	0.62
1:D:205:TYR:HD2	1:D:205:TYR:N	1.98	0.62
1:D:259:LYS:CG	1:D:260:TRP:N	2.56	0.62
1:D:350:ARG:HB3	1:D:351:PRO:HD3	1.80	0.62
1:H:175:ILE:HD11	1:H:193:GLY:O	2.00	0.62
1:H:298:ALA:O	1:H:315:ARG:CA	2.46	0.62
1:A:152:PHE:O	1:A:152:PHE:HD2	1.82	0.61
1:A:153:PRO:HB3	1:A:222:TRP:CH2	2.34	0.61
1:A:260:TRP:CE2	2:A:401:CMP:H8	2.35	0.61
1:A:263:LEU:O	1:A:266:ALA:HB3	2.00	0.61
1:B:161:THR:HG23	1:B:214:LYS:HD3	1.82	0.61
1:B:204:ILE:HG22	1:B:205:TYR:CD2	2.34	0.61
1:C:174:VAL:HA	1:C:196:GLY:O	1.99	0.61
1:E:115:VAL:CG2	1:H:110:SER:HB3	2.31	0.61
1:E:190:THR:CG2	1:E:191:SER:H	2.13	0.61
1:F:327:LEU:HD23	1:F:353:PHE:CZ	2.35	0.61
1:G:260:TRP:HE1	2:G:401:CMP:C2'	2.07	0.61
1:H:173:TYR:CD2	1:H:198:PHE:CZ	2.86	0.61
1:H:269:LEU:HD22	1:H:346:VAL:CG2	2.30	0.61
1:A:120:TYR:CD2	1:A:120:TYR:O	2.53	0.61
1:B:265:VAL:HA	1:B:356:VAL:HG11	1.82	0.61
1:B:279:LYS:HB2	1:B:279:LYS:NZ	2.12	0.61
1:C:174:VAL:O	1:C:174:VAL:CG1	2.47	0.61
1:E:135:LEU:CD1	1:E:136:PHE:N	2.62	0.61
1:H:112:VAL:CG1	1:H:113:ARG:H	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:118:LYS:CB	1:H:123:MET:HE1	2.29	0.61
1:H:280:ILE:CG1	1:H:337:VAL:HB	2.30	0.61
1:A:115:VAL:CG2	1:D:112:VAL:CG2	2.67	0.61
1:A:280:ILE:HD13	1:A:322:PHE:HZ	1.66	0.61
1:B:289:GLU:HG3	1:B:347:LYS:NZ	2.14	0.61
1:C:321:TYR:CD1	1:C:321:TYR:O	2.53	0.61
1:E:152:PHE:O	1:E:152:PHE:HD2	1.80	0.61
1:F:114:LYS:HZ1	1:F:115:VAL:CG2	2.10	0.61
1:F:165:GLN:N	1:F:212:THR:CG2	2.46	0.61
1:G:316:LEU:HD12	1:G:316:LEU:N	2.16	0.61
1:G:375:VAL:HG12	1:G:376:SER:N	2.14	0.61
1:H:260:TRP:O	1:H:263:LEU:HB2	2.00	0.61
1:H:279:LYS:CE	1:H:336:THR:HG23	2.30	0.61
1:A:181:ASP:OD1	1:A:191:SER:HB3	2.00	0.61
1:B:196:GLY:HA2	1:B:355:ARG:HH21	1.61	0.61
1:B:324:GLU:HB2	1:B:364:LEU:HD13	1.82	0.61
1:D:329:MET:HA	1:D:329:MET:HE3	1.81	0.61
1:F:260:TRP:HA	1:F:263:LEU:HD12	1.83	0.61
1:F:294:LEU:H	1:F:294:LEU:CD1	2.08	0.61
1:G:158:ALA:N	1:G:218:ASN:OD1	2.30	0.61
1:H:144:ARG:HG2	1:H:145:SER:N	2.14	0.61
1:H:147:ILE:HG13	1:H:148:PHE:HD2	1.65	0.61
1:A:327:LEU:HD23	1:A:353:PHE:CZ	2.35	0.61
1:C:130:ILE:CD1	1:C:136:PHE:CD2	2.83	0.61
1:C:234:MET:HG3	1:C:234:MET:O	2.00	0.61
1:C:324:GLU:N	1:C:324:GLU:OE1	2.33	0.61
1:D:120:TYR:O	1:D:121:LYS:C	2.36	0.61
1:D:182:VAL:HG23	1:D:182:VAL:O	2.00	0.61
1:E:157:ILE:HG13	1:E:160:GLU:OE1	2.01	0.61
1:E:254:LEU:HD12	1:E:254:LEU:C	2.21	0.61
1:C:112:VAL:HB	1:C:231:ARG:CZ	2.31	0.61
1:C:177:GLN:HA	1:C:194:GLU:HG3	1.82	0.61
1:C:247:PHE:HZ	1:C:293:ILE:O	1.82	0.61
1:C:315:ARG:NH2	1:C:340:ARG:HH22	1.97	0.61
1:D:183:TYR:CD1	1:D:188:TRP:HB2	2.36	0.61
1:D:198:PHE:CD1	1:D:198:PHE:N	2.66	0.61
1:D:224:ILE:N	1:D:224:ILE:HD12	2.15	0.61
1:F:140:ASP:C	1:F:140:ASP:OD1	2.38	0.61
1:H:350:ARG:HB3	1:H:351:PRO:HD3	1.83	0.61
1:A:362:ASP:O	1:A:365:LYS:HG3	2.01	0.61
1:B:371:TYR:CE1	2:B:402:CMP:C5	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:243:MET:CE	1:E:158:ALA:O	2.49	0.61
1:E:165:GLN:N	1:E:212:THR:CG2	2.42	0.61
1:G:173:TYR:CB	1:G:198:PHE:HE1	2.12	0.61
1:G:211:ASP:OD2	2:G:401:CMP:C3'	2.49	0.61
1:G:222:TRP:HA	1:G:222:TRP:CE3	2.34	0.61
1:H:305:SER:O	1:H:306:GLU:C	2.37	0.61
1:H:321:TYR:CD1	1:H:321:TYR:C	2.73	0.61
1:A:113:ARG:CG	1:D:113:ARG:HB2	2.31	0.61
1:A:260:TRP:CG	2:A:401:CMP:C5	2.89	0.61
1:A:272:VAL:C	1:A:273:GLN:NE2	2.54	0.61
1:B:205:TYR:N	1:B:205:TYR:HD2	1.96	0.61
1:C:353:PHE:CE1	1:C:357:LEU:HD22	2.36	0.61
1:H:194:GLU:O	1:H:355:ARG:HD2	2.01	0.61
1:A:120:TYR:HB2	1:B:149:ASP:OD1	2.00	0.61
1:A:229:TYR:O	1:A:233:LEU:HD12	2.00	0.61
1:B:165:GLN:CA	1:B:211:ASP:O	2.49	0.61
1:C:220:LYS:O	1:C:221:LEU:HD23	2.01	0.61
1:D:247:PHE:CE1	1:D:294:LEU:HB3	2.36	0.61
1:E:222:TRP:HA	1:E:222:TRP:CE3	2.36	0.61
1:E:260:TRP:HA	1:E:263:LEU:HD12	1.82	0.61
1:G:316:LEU:HA	1:G:320:ASP:OD2	2.01	0.61
1:A:171:ASN:HB3	1:A:224:ILE:O	2.01	0.61
1:B:201:LEU:O	1:B:204:ILE:N	2.34	0.61
1:B:222:TRP:HA	1:B:222:TRP:HE3	1.66	0.61
1:C:298:ALA:N	1:C:316:LEU:O	2.32	0.61
1:C:353:PHE:CE1	1:C:357:LEU:HD23	2.36	0.61
1:D:279:LYS:HG3	1:D:279:LYS:O	1.99	0.61
1:E:280:ILE:HD13	1:E:322:PHE:HZ	1.66	0.61
1:E:293:ILE:HA	1:E:345:CYS:SG	2.40	0.61
1:G:209:ARG:HD2	2:G:401:CMP:O5'	2.00	0.61
1:G:247:PHE:C	1:G:247:PHE:CD2	2.74	0.61
1:G:266:ALA:O	1:G:267:ASP:C	2.38	0.61
1:H:115:VAL:CA	1:H:149:ASP:HB3	2.29	0.61
1:A:120:TYR:CD1	1:B:148:PHE:HB2	2.27	0.60
1:A:233:LEU:HD12	1:A:233:LEU:N	2.03	0.60
1:B:158:ALA:CA	1:B:217:THR:O	2.49	0.60
1:B:182:VAL:HG12	1:B:213:VAL:CG2	2.31	0.60
1:B:375:VAL:HG22	1:B:376:SER:OG	2.00	0.60
1:C:205:TYR:HD2	1:C:205:TYR:N	1.99	0.60
1:H:152:PHE:CD2	1:H:152:PHE:O	2.54	0.60
1:H:242:LYS:HD3	1:H:242:LYS:N	2.07	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:263:LEU:O	1:H:267:ASP:N	2.30	0.60
1:H:275:GLU:O	1:H:339:ALA:HB3	2.01	0.60
1:H:311:VAL:CG2	1:H:312:GLU:N	2.64	0.60
1:A:203:LEU:HD22	1:A:226:ARG:CB	2.30	0.60
1:A:230:ARG:HH12	1:A:234:MET:CE	2.12	0.60
1:A:248:LEU:CB	1:A:262:ARG:HH21	2.14	0.60
1:C:241:ARG:CZ	1:C:263:LEU:HG	2.31	0.60
1:D:325:ILE:CG1	2:D:402:CMP:P	2.89	0.60
1:G:157:ILE:HD12	1:G:157:ILE:O	2.01	0.60
1:G:253:ILE:CG2	1:G:321:TYR:CE2	2.84	0.60
1:G:329:MET:HA	1:G:329:MET:HE3	1.83	0.60
1:G:356:VAL:HG23	1:G:357:LEU:HD12	1.80	0.60
1:H:211:ASP:OD2	2:H:401:CMP:H3'	2.00	0.60
1:H:247:PHE:HZ	1:H:293:ILE:O	1.82	0.60
1:H:328:LEU:HD22	1:H:365:LYS:HE3	1.82	0.60
1:A:139:LEU:CD2	1:A:147:ILE:HD13	2.32	0.60
1:B:120:TYR:HE2	1:B:124:ALA:HB2	1.66	0.60
1:C:282:VAL:O	1:C:285:GLU:CG	2.46	0.60
1:C:294:LEU:HD11	1:C:345:CYS:CA	2.14	0.60
1:G:230:ARG:O	1:G:234:MET:CB	2.49	0.60
1:G:257:LEU:HD21	1:G:360:CYS:SG	2.41	0.60
1:G:299:ALA:HB3	1:G:338:VAL:HG12	1.82	0.60
1:A:120:TYR:O	1:A:121:LYS:C	2.39	0.60
1:A:230:ARG:NH1	1:A:234:MET:HE3	2.16	0.60
1:A:260:TRP:CZ2	2:A:401:CMP:H8	2.37	0.60
1:C:151:MET:HA	1:C:224:ILE:HG22	1.83	0.60
1:C:178:GLY:CA	1:C:219:VAL:HG12	2.15	0.60
1:D:112:VAL:HG12	1:D:231:ARG:NH2	2.15	0.60
1:D:175:ILE:HD11	1:D:196:GLY:N	2.12	0.60
1:D:232:ILE:HG23	1:D:233:LEU:HG	1.83	0.60
1:E:123:MET:CE	1:F:123:MET:HE2	2.30	0.60
1:E:294:LEU:N	1:E:294:LEU:CD1	2.38	0.60
1:H:361:SER:C	1:H:365:LYS:HZ2	2.05	0.60
1:A:188:TRP:HH2	1:A:191:SER:HG	1.48	0.60
1:A:294:LEU:CD1	1:A:294:LEU:H	2.01	0.60
1:B:260:TRP:CD2	2:B:401:CMP:C8	2.85	0.60
1:B:327:LEU:HD23	1:B:353:PHE:CZ	2.37	0.60
1:E:300:VAL:HG22	1:E:337:VAL:HG22	1.84	0.60
1:F:177:GLN:HA	1:F:194:GLU:HG3	1.82	0.60
1:F:325:ILE:CD1	2:F:402:CMP:O1P	2.49	0.60
1:G:262:ARG:HA	1:G:265:VAL:HG23	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:272:VAL:O	1:H:345:CYS:N	2.32	0.60
1:A:152:PHE:HE2	1:A:223:GLY:CA	2.11	0.60
1:B:209:ARG:HD2	2:B:401:CMP:O5'	2.01	0.60
1:B:365:LYS:C	1:B:368:ILE:HG13	2.21	0.60
1:C:126:LEU:HB2	1:C:222:TRP:CZ2	2.37	0.60
1:C:229:TYR:CD1	1:C:233:LEU:HD12	2.36	0.60
1:D:283:GLN:OE1	1:D:302:GLN:HA	2.02	0.60
1:G:190:THR:HG22	1:G:191:SER:N	2.07	0.60
1:G:272:VAL:HA	1:G:273:GLN:HE22	1.65	0.60
1:G:325:ILE:HG23	1:G:329:MET:CG	2.31	0.60
1:H:281:VAL:HG13	1:H:333:ARG:CD	2.31	0.60
1:A:139:LEU:HD21	1:A:147:ILE:HD13	1.83	0.60
1:A:188:TRP:CZ3	1:A:190:THR:CA	2.84	0.60
1:A:362:ASP:N	1:A:362:ASP:OD1	2.32	0.60
1:B:152:PHE:HE2	1:B:223:GLY:HA3	1.65	0.60
1:B:273:GLN:N	1:B:273:GLN:CD	2.50	0.60
1:D:184:VAL:HG13	1:D:184:VAL:O	2.01	0.60
1:E:113:ARG:O	1:H:112:VAL:CB	2.47	0.60
1:E:115:VAL:HG23	1:H:110:SER:HB3	1.84	0.60
1:F:114:LYS:CE	1:F:115:VAL:H	2.15	0.60
1:G:173:TYR:HD2	1:G:198:PHE:CZ	2.18	0.60
1:G:175:ILE:HD11	1:G:193:GLY:O	2.01	0.60
1:G:327:LEU:HD23	1:G:353:PHE:CE2	2.36	0.60
1:H:230:ARG:HG2	1:H:230:ARG:HH11	1.66	0.60
1:H:322:PHE:CD1	1:H:322:PHE:N	2.68	0.60
1:A:254:LEU:HD12	1:A:255:GLU:N	2.17	0.60
1:A:366:ARG:O	1:A:369:GLN:HB2	2.02	0.60
1:B:273:GLN:HB3	1:B:344:LYS:HA	1.84	0.60
1:B:310:PHE:O	1:B:311:VAL:HG23	2.02	0.60
1:C:182:VAL:CG2	1:C:190:THR:O	2.38	0.60
1:C:301:LEU:HA	1:C:311:VAL:O	2.02	0.60
1:C:371:TYR:CE1	2:C:402:CMP:N7	2.69	0.60
1:D:205:TYR:CD2	1:D:205:TYR:N	2.70	0.60
1:D:353:PHE:CD1	1:D:357:LEU:HD22	2.33	0.60
1:F:130:ILE:CG1	1:F:136:PHE:CD2	2.81	0.60
1:F:158:ALA:O	1:H:243:MET:CE	2.49	0.60
1:F:190:THR:CG2	1:F:191:SER:H	2.12	0.60
1:H:147:ILE:O	1:H:148:PHE:C	2.37	0.60
1:H:200:GLU:OE2	1:H:241:ARG:NH2	2.35	0.60
1:A:211:ASP:OD2	2:A:401:CMP:N3	2.34	0.60
1:A:298:ALA:HB1	1:A:338:VAL:O	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:165:GLN:HE22	1:B:185:ASN:ND2	2.00	0.60
1:B:229:TYR:O	1:B:233:LEU:HD12	2.02	0.60
1:C:130:ILE:HG13	1:C:136:PHE:CD2	2.36	0.60
1:D:179:GLU:HB3	1:D:217:THR:HG23	1.84	0.60
1:D:298:ALA:O	1:D:316:LEU:CD2	2.49	0.60
1:E:266:ALA:CA	1:E:269:LEU:CD1	2.76	0.60
1:F:249:SER:N	1:F:262:ARG:NH2	2.49	0.60
1:G:279:LYS:HB2	1:G:279:LYS:HZ2	1.56	0.60
1:B:182:VAL:O	1:B:182:VAL:CG2	2.44	0.60
1:C:284:GLY:N	1:C:333:ARG:O	2.32	0.60
1:D:175:ILE:HD11	1:D:195:GLY:N	2.17	0.60
1:D:249:SER:N	1:D:262:ARG:HH22	2.00	0.60
1:D:280:ILE:HD13	1:D:322:PHE:CZ	2.37	0.60
1:F:175:ILE:HG22	1:F:221:LEU:HD21	1.83	0.60
1:A:126:LEU:HD12	1:A:126:LEU:C	2.18	0.59
1:A:311:VAL:CG2	1:A:312:GLU:N	2.65	0.59
1:A:316:LEU:CA	1:A:320:ASP:OD2	2.50	0.59
1:B:273:GLN:CB	1:B:344:LYS:HA	2.31	0.59
1:B:333:ARG:NH1	2:B:402:CMP:O2P	2.34	0.59
1:F:131:GLU:O	1:F:133:ASN:N	2.35	0.59
1:F:301:LEU:HD13	1:F:311:VAL:O	2.02	0.59
1:G:111:TYR:CG	1:G:112:VAL:N	2.70	0.59
1:H:230:ARG:CZ	1:H:234:MET:CE	2.80	0.59
1:H:325:ILE:HD11	2:H:402:CMP:O1P	2.02	0.59
1:A:117:PRO:HG2	1:D:110:SER:CB	2.32	0.59
1:A:230:ARG:HH11	1:A:234:MET:HE1	1.61	0.59
1:A:329:MET:CE	1:A:329:MET:HA	2.32	0.59
1:B:135:LEU:HD13	1:B:136:PHE:CG	2.37	0.59
1:B:203:LEU:HD22	1:B:226:ARG:HB3	1.84	0.59
1:B:211:ASP:OD2	2:B:401:CMP:C5'	2.49	0.59
1:C:293:ILE:HA	1:C:345:CYS:SG	2.42	0.59
1:D:294:LEU:CD1	1:D:294:LEU:N	2.49	0.59
1:E:230:ARG:NH1	1:E:234:MET:HE1	2.17	0.59
1:G:260:TRP:CD1	2:G:401:CMP:C4	2.90	0.59
1:H:295:GLU:HG2	1:H:318:PRO:HG3	1.83	0.59
1:B:153:PRO:CB	1:B:222:TRP:HZ3	2.13	0.59
1:C:278:GLN:O	1:C:338:VAL:CG2	2.49	0.59
1:D:111:TYR:CG	1:D:112:VAL:N	2.70	0.59
1:E:177:GLN:HA	1:E:194:GLU:HG3	1.83	0.59
1:E:272:VAL:C	1:E:273:GLN:NE2	2.55	0.59
1:F:158:ALA:O	1:H:243:MET:HE1	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:313:VAL:O	1:F:313:VAL:HG22	2.01	0.59
1:H:182:VAL:CG2	1:H:190:THR:H	2.13	0.59
1:H:203:LEU:HD22	1:H:226:ARG:HB3	1.84	0.59
1:A:162:VAL:CG2	1:A:163:ILE:HG13	2.29	0.59
1:A:173:TYR:HD2	1:A:198:PHE:HE1	1.43	0.59
1:B:272:VAL:CG2	1:B:273:GLN:NE2	2.66	0.59
1:C:118:LYS:HE2	1:C:148:PHE:O	2.01	0.59
1:C:298:ALA:CB	1:C:338:VAL:O	2.50	0.59
1:F:174:VAL:HG13	1:F:222:TRP:HB2	1.84	0.59
1:H:279:LYS:HB3	1:H:338:VAL:HG23	1.84	0.59
1:H:376:SER:O	1:H:376:SER:OG	2.14	0.59
1:A:157:ILE:CA	1:A:218:ASN:OD1	2.51	0.59
1:A:158:ALA:CA	1:A:217:THR:O	2.50	0.59
1:B:144:ARG:O	1:B:147:ILE:HG12	2.02	0.59
1:B:293:ILE:HD11	1:B:343:LEU:CD1	2.32	0.59
1:C:204:ILE:CG2	1:C:205:TYR:HD2	2.10	0.59
1:F:152:PHE:CE2	1:F:223:GLY:HA3	2.25	0.59
1:H:157:ILE:O	1:H:160:GLU:HB2	2.02	0.59
1:H:247:PHE:HE1	1:H:294:LEU:CB	2.14	0.59
1:H:348:LEU:HD21	1:H:356:VAL:HG21	1.83	0.59
1:A:116:ILE:HB	1:A:118:LYS:NZ	2.17	0.59
1:A:145:SER:HA	1:B:120:TYR:CD1	2.36	0.59
1:B:247:PHE:CE1	1:B:294:LEU:HB3	2.38	0.59
1:B:272:VAL:CA	1:B:273:GLN:NE2	2.66	0.59
1:B:313:VAL:HG21	2:B:402:CMP:C6	2.32	0.59
1:C:120:TYR:C	1:C:120:TYR:HD2	2.04	0.59
1:C:165:GLN:CA	1:C:211:ASP:O	2.49	0.59
1:C:266:ALA:O	1:C:267:ASP:C	2.39	0.59
1:D:235:GLY:O	1:D:239:ARG:HG3	2.02	0.59
1:E:183:TYR:HD1	1:E:188:TRP:HA	1.68	0.59
1:E:290:PHE:C	1:E:291:PHE:HD1	2.05	0.59
1:E:365:LYS:C	1:E:368:ILE:HG13	2.21	0.59
1:F:205:TYR:CD2	1:F:205:TYR:N	2.69	0.59
1:F:296:GLY:HA3	1:F:342:PRO:O	2.02	0.59
1:G:151:MET:HA	1:G:224:ILE:HG22	1.84	0.59
1:H:113:ARG:HB3	1:H:231:ARG:HH12	1.66	0.59
1:H:183:TYR:CD1	1:H:188:TRP:HB2	2.37	0.59
1:H:294:LEU:O	1:H:318:PRO:CB	2.47	0.59
1:H:353:PHE:CE1	1:H:357:LEU:HD23	2.38	0.59
1:B:205:TYR:CD2	1:B:205:TYR:N	2.68	0.59
1:B:260:TRP:CG	2:B:401:CMP:C5	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:129:ALA:HA	1:C:132:LYS:HE3	1.85	0.59
1:C:243:MET:HE2	1:E:159:GLY:O	2.03	0.59
1:C:271:PRO:HA	1:C:345:CYS:O	2.02	0.59
1:D:291:PHE:CZ	1:D:347:LYS:NZ	2.71	0.59
1:G:152:PHE:CD2	1:G:152:PHE:C	2.73	0.59
1:G:173:TYR:CD2	1:G:198:PHE:CE1	2.87	0.59
1:G:365:LYS:O	1:G:368:ILE:CG1	2.42	0.59
1:H:252:SER:OG	1:H:253:ILE:N	2.34	0.59
1:H:278:GLN:O	1:H:338:VAL:HG22	2.00	0.59
1:A:112:VAL:CB	1:A:112:VAL:N	2.62	0.59
1:A:375:VAL:CG1	1:A:376:SER:H	2.15	0.59
1:B:253:ILE:HG13	1:B:254:LEU:HG	1.84	0.59
1:D:293:ILE:CG1	1:D:343:LEU:HD11	2.32	0.59
1:E:353:PHE:HE1	1:E:357:LEU:CD2	2.12	0.59
1:F:176:ASP:O	1:F:194:GLU:HG2	2.03	0.59
1:G:120:TYR:CD2	1:G:121:LYS:HA	2.35	0.59
1:H:230:ARG:CG	1:H:234:MET:HE1	2.33	0.59
1:H:284:GLY:CA	1:H:332:PRO:HB3	2.32	0.59
1:A:111:TYR:O	1:D:115:VAL:CG2	2.51	0.59
1:A:152:PHE:CE2	1:A:223:GLY:HA3	2.31	0.59
1:A:188:TRP:HZ3	1:A:190:THR:O	1.85	0.59
1:A:260:TRP:NE1	2:A:401:CMP:C8	2.65	0.59
1:A:262:ARG:HA	1:A:265:VAL:CG2	2.32	0.59
1:A:278:GLN:O	1:A:338:VAL:HG22	2.03	0.59
1:D:175:ILE:CD1	1:D:195:GLY:N	2.66	0.59
1:E:259:LYS:CG	1:E:260:TRP:N	2.66	0.59
1:H:204:ILE:HG12	1:H:234:MET:SD	2.43	0.59
1:H:205:TYR:HD2	1:H:205:TYR:N	2.00	0.59
1:B:173:TYR:HD1	1:B:223:GLY:HA3	1.68	0.59
1:D:200:GLU:HG2	1:D:201:LEU:HG	1.84	0.59
1:D:211:ASP:OD2	2:D:401:CMP:H3'	2.03	0.59
1:D:247:PHE:CE1	1:D:294:LEU:CA	2.79	0.59
1:D:293:ILE:HA	1:D:345:CYS:SG	2.43	0.59
1:H:173:TYR:CD2	1:H:198:PHE:HE1	2.18	0.59
1:H:177:GLN:HA	1:H:194:GLU:HG3	1.84	0.59
1:H:294:LEU:HD11	1:H:344:LYS:HG2	1.85	0.59
1:H:365:LYS:O	1:H:368:ILE:CG1	2.48	0.59
1:A:113:ARG:NH2	1:D:115:VAL:HA	2.16	0.58
1:A:273:GLN:NE2	1:A:273:GLN:H	1.79	0.58
1:B:131:GLU:C	1:B:133:ASN:H	2.06	0.58
1:D:366:ARG:HG2	1:D:367:ASN:N	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:362:ASP:OD1	1:E:362:ASP:N	2.36	0.58
1:F:131:GLU:OE1	1:F:131:GLU:CA	2.50	0.58
1:F:194:GLU:O	1:F:355:ARG:HD2	2.03	0.58
1:G:180:MET:HB2	1:G:192:VAL:HB	1.84	0.58
1:H:161:THR:CA	1:H:214:LYS:HD2	2.25	0.58
1:H:253:ILE:HG13	1:H:254:LEU:HG	1.85	0.58
1:A:144:ARG:HD2	1:B:120:TYR:HH	1.68	0.58
1:A:175:ILE:CD1	1:A:195:GLY:N	2.66	0.58
1:A:262:ARG:O	1:A:265:VAL:CB	2.43	0.58
1:A:294:LEU:HD11	1:A:345:CYS:CA	2.22	0.58
1:B:292:ILE:HB	1:B:346:VAL:HG13	1.84	0.58
1:C:143:GLU:HB3	1:C:232:ILE:HD11	1.85	0.58
1:C:281:VAL:CG1	1:C:333:ARG:CG	2.81	0.58
1:D:296:GLY:HA3	1:D:343:LEU:HA	1.85	0.58
1:E:111:TYR:C	1:E:112:VAL:HG22	2.24	0.58
1:E:198:PHE:CD1	1:E:198:PHE:N	2.70	0.58
1:F:220:LYS:O	1:F:221:LEU:HD23	2.03	0.58
1:G:117:PRO:HA	1:H:119:ASP:HA	1.84	0.58
1:H:293:ILE:HG21	1:H:317:GLY:C	2.23	0.58
1:A:135:LEU:HD13	1:A:136:PHE:CG	2.37	0.58
1:B:310:PHE:O	1:B:310:PHE:HD2	1.86	0.58
1:B:322:PHE:CD2	1:B:337:VAL:HG21	2.38	0.58
1:C:293:ILE:HG21	1:C:317:GLY:C	2.23	0.58
1:C:361:SER:HB2	1:C:365:LYS:HZ1	1.67	0.58
1:E:165:GLN:CA	1:E:211:ASP:O	2.50	0.58
1:F:180:MET:O	1:F:191:SER:HA	2.02	0.58
1:F:198:PHE:N	1:F:198:PHE:HD1	2.01	0.58
1:G:321:TYR:C	1:G:321:TYR:CD1	2.77	0.58
1:B:133:ASN:O	1:B:135:LEU:HD12	2.02	0.58
1:B:262:ARG:HA	1:B:265:VAL:CG2	2.34	0.58
1:B:281:VAL:CG1	1:B:333:ARG:CD	2.81	0.58
1:C:173:TYR:HB2	1:C:198:PHE:CE1	2.38	0.58
1:C:350:ARG:O	1:C:353:PHE:CB	2.51	0.58
1:D:144:ARG:O	1:D:145:SER:C	2.40	0.58
1:E:120:TYR:CD1	1:F:148:PHE:CD1	2.92	0.58
1:E:203:LEU:HD12	1:E:229:TYR:HD2	1.67	0.58
1:G:112:VAL:HG12	1:G:231:ARG:CZ	2.33	0.58
1:G:144:ARG:O	1:G:147:ILE:HG12	2.02	0.58
1:G:164:GLN:HA	1:G:212:THR:CG2	2.32	0.58
1:H:280:ILE:HD11	1:H:337:VAL:CB	2.29	0.58
1:H:300:VAL:O	1:H:301:LEU:CD2	2.44	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:325:ILE:HG13	2:H:402:CMP:O1P	2.04	0.58
1:A:120:TYR:OH	1:B:144:ARG:HD2	2.03	0.58
1:A:259:LYS:CG	1:A:260:TRP:N	2.57	0.58
1:B:325:ILE:CD1	1:B:334:ALA:HB3	2.34	0.58
1:C:112:VAL:O	1:C:113:ARG:HG3	2.04	0.58
1:C:247:PHE:CE1	1:C:294:LEU:HB3	2.38	0.58
1:C:263:LEU:O	1:C:267:ASP:N	2.33	0.58
1:C:292:ILE:HB	1:C:346:VAL:CG1	2.33	0.58
1:D:122:THR:O	1:D:125:ALA:HB3	2.03	0.58
1:D:200:GLU:HG2	1:D:201:LEU:HD12	1.84	0.58
1:E:144:ARG:CG	1:E:145:SER:N	2.67	0.58
1:E:161:THR:CA	1:E:214:LYS:HD2	2.32	0.58
1:E:173:TYR:CD2	1:E:198:PHE:CE1	2.91	0.58
1:E:182:VAL:CG2	1:E:190:THR:H	2.16	0.58
1:E:248:LEU:CB	1:E:262:ARG:HH21	2.17	0.58
1:G:269:LEU:CB	1:G:346:VAL:CG2	2.81	0.58
1:H:308:GLU:O	1:H:309:GLU:OE2	2.21	0.58
1:C:205:TYR:CD2	1:C:205:TYR:N	2.71	0.58
1:C:272:VAL:HG22	1:C:273:GLN:N	2.14	0.58
1:D:318:PRO:O	1:D:319:SER:HB3	2.03	0.58
1:E:201:LEU:HD13	2:E:401:CMP:H2'	1.83	0.58
1:F:152:PHE:CD2	1:F:152:PHE:C	2.76	0.58
1:A:188:TRP:CZ3	1:A:190:THR:HA	2.38	0.58
1:B:163:ILE:O	1:B:212:THR:HG22	2.04	0.58
1:C:302:GLN:NE2	1:C:374:PHE:CB	2.67	0.58
1:D:162:VAL:CG2	1:D:213:VAL:O	2.50	0.58
1:D:175:ILE:CD1	1:D:194:GLU:HA	2.33	0.58
1:E:262:ARG:HA	1:E:265:VAL:CG2	2.33	0.58
1:F:113:ARG:HD3	1:F:146:ASP:CB	2.34	0.58
1:G:158:ALA:HB2	1:G:217:THR:C	2.24	0.58
1:G:254:LEU:HD12	1:G:255:GLU:N	2.18	0.58
1:A:142:ASN:CB	1:C:121:LYS:HE3	2.33	0.58
1:B:200:GLU:CG	1:B:201:LEU:N	2.42	0.58
1:B:260:TRP:HA	1:B:263:LEU:HD12	1.84	0.58
1:C:139:LEU:N	1:C:139:LEU:CD1	2.63	0.58
1:D:161:THR:HG23	1:D:214:LYS:CD	2.34	0.58
1:D:199:GLY:HA2	2:D:401:CMP:P	2.44	0.58
1:D:204:ILE:CG2	1:D:205:TYR:CD2	2.83	0.58
1:E:180:MET:HB2	1:E:192:VAL:HB	1.86	0.58
1:E:274:PHE:CD2	1:E:280:ILE:HG22	2.39	0.58
1:E:296:GLY:CA	1:E:342:PRO:O	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:157:ILE:CB	1:G:218:ASN:OD1	2.51	0.58
1:H:325:ILE:O	1:H:328:LEU:N	2.36	0.58
1:A:113:ARG:HG2	1:D:113:ARG:HB2	1.84	0.58
1:A:113:ARG:CZ	1:D:114:LYS:N	2.67	0.58
1:B:120:TYR:CD2	1:B:120:TYR:O	2.52	0.58
1:B:177:GLN:HA	1:B:194:GLU:HG3	1.84	0.58
1:B:260:TRP:NE1	2:B:401:CMP:H2'	2.12	0.58
1:B:348:LEU:HD21	1:B:356:VAL:CG2	2.32	0.58
1:C:161:THR:OG1	1:C:214:LYS:NZ	2.32	0.58
1:C:371:TYR:CE1	2:C:402:CMP:C5	2.92	0.58
1:D:152:PHE:HD1	1:D:152:PHE:N	1.97	0.58
1:D:226:ARG:HH11	1:D:226:ARG:CG	2.04	0.58
1:E:293:ILE:CG1	1:E:317:GLY:O	2.51	0.58
1:E:300:VAL:HG11	2:E:402:CMP:C8	2.33	0.58
1:F:270:GLU:O	1:F:346:VAL:HA	2.04	0.58
1:B:269:LEU:CD2	1:B:346:VAL:HG21	2.34	0.58
1:B:294:LEU:O	1:B:295:GLU:HG3	2.03	0.58
1:C:175:ILE:HD11	1:C:193:GLY:O	2.04	0.58
1:C:229:TYR:HD1	1:C:233:LEU:HD11	1.66	0.58
1:D:129:ALA:CB	1:D:222:TRP:HE1	2.17	0.58
1:D:292:ILE:HB	1:D:346:VAL:CG1	2.33	0.58
1:D:324:GLU:O	1:D:325:ILE:C	2.42	0.58
1:E:151:MET:HA	1:E:224:ILE:HG22	1.85	0.58
1:E:152:PHE:CD2	1:E:152:PHE:N	2.68	0.58
1:F:300:VAL:HG11	1:F:335:ALA:HB1	1.85	0.58
1:F:361:SER:O	1:F:365:LYS:HD2	2.03	0.58
1:H:158:ALA:HA	1:H:215:ALA:CB	2.34	0.58
1:H:302:GLN:C	1:H:310:PHE:CD1	2.77	0.58
1:A:175:ILE:HA	1:A:221:LEU:HD23	1.81	0.57
1:D:135:LEU:HD12	1:D:135:LEU:N	2.19	0.57
1:D:242:LYS:N	1:D:242:LYS:HD3	2.11	0.57
1:E:269:LEU:CB	1:E:346:VAL:HG21	2.32	0.57
1:E:290:PHE:HB2	1:E:327:LEU:CD2	2.34	0.57
1:F:118:LYS:NZ	1:F:151:MET:O	2.32	0.57
1:F:183:TYR:CD1	1:F:188:TRP:HB2	2.38	0.57
1:F:230:ARG:HG2	1:F:230:ARG:HH11	1.69	0.57
1:G:247:PHE:HE1	1:G:294:LEU:CA	2.10	0.57
1:H:152:PHE:O	1:H:152:PHE:HD2	1.87	0.57
1:H:205:TYR:CD2	1:H:205:TYR:N	2.71	0.57
1:H:247:PHE:C	1:H:247:PHE:HD2	2.05	0.57
1:A:111:TYR:O	1:A:112:VAL:CB	2.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:138:HIS:CD2	1:C:157:ILE:CG2	2.86	0.57
1:B:188:TRP:HH2	1:B:191:SER:HG	1.51	0.57
1:D:113:ARG:CZ	1:D:146:ASP:OD1	2.51	0.57
1:D:120:TYR:CE2	1:D:124:ALA:HB2	2.39	0.57
1:D:299:ALA:HB3	1:D:338:VAL:HG12	1.85	0.57
1:A:151:MET:HG2	1:A:224:ILE:CG2	2.34	0.57
1:B:347:LYS:O	1:B:348:LEU:HD12	2.04	0.57
1:C:158:ALA:HA	1:C:215:ALA:CB	2.34	0.57
1:D:158:ALA:O	1:F:243:MET:HE1	2.04	0.57
1:D:230:ARG:CG	1:D:234:MET:HE1	2.31	0.57
1:F:188:TRP:CH2	1:F:190:THR:HA	2.39	0.57
1:G:126:LEU:O	1:G:126:LEU:CD1	2.39	0.57
1:G:130:ILE:CG2	1:G:131:GLU:N	2.67	0.57
1:A:313:VAL:HG11	2:A:402:CMP:N6	2.19	0.57
1:B:157:ILE:CG2	1:B:218:ASN:OD1	2.52	0.57
1:B:246:GLU:O	1:B:248:LEU:N	2.37	0.57
1:C:222:TRP:HA	1:C:222:TRP:HE3	1.67	0.57
1:C:260:TRP:O	1:C:263:LEU:HB2	2.04	0.57
1:C:344:LYS:HE2	1:E:216:LYS:HA	1.86	0.57
1:D:365:LYS:CA	1:D:368:ILE:HG13	2.34	0.57
1:G:161:THR:OG1	1:G:214:LYS:NZ	2.22	0.57
1:G:254:LEU:HD12	1:G:254:LEU:C	2.25	0.57
1:H:129:ALA:CB	1:H:222:TRP:HE1	2.18	0.57
1:H:297:SER:O	1:H:340:ARG:HB2	2.04	0.57
1:A:175:ILE:HD12	1:A:195:GLY:H	1.69	0.57
1:B:152:PHE:HE2	1:B:223:GLY:CA	2.17	0.57
1:B:312:GLU:CD	1:B:313:VAL:N	2.57	0.57
1:B:365:LYS:HA	1:B:368:ILE:CG1	2.35	0.57
1:D:201:LEU:O	1:D:204:ILE:N	2.38	0.57
1:E:233:LEU:HD12	1:E:233:LEU:N	2.08	0.57
1:F:164:GLN:HA	1:F:212:THR:CG2	2.31	0.57
1:F:363:ILE:O	1:F:366:ARG:HG2	2.04	0.57
1:G:234:MET:HG3	1:G:238:LEU:CD1	2.33	0.57
1:G:246:GLU:O	1:G:248:LEU:N	2.38	0.57
1:G:265:VAL:CG1	1:G:269:LEU:CD2	2.70	0.57
1:G:348:LEU:HD21	1:G:356:VAL:CG2	2.34	0.57
1:A:138:HIS:CD2	1:C:157:ILE:HG21	2.39	0.57
1:B:251:VAL:O	1:B:252:SER:O	2.21	0.57
1:C:120:TYR:HD2	1:C:121:LYS:CA	2.17	0.57
1:C:157:ILE:O	1:C:157:ILE:CD1	2.37	0.57
1:C:172:PHE:O	1:C:224:ILE:HD12	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:204:ILE:CG2	1:C:205:TYR:CE2	2.88	0.57
1:C:325:ILE:HG13	2:C:402:CMP:O2P	2.02	0.57
1:D:139:LEU:HD21	1:D:147:ILE:HD11	1.87	0.57
1:D:174:VAL:CG1	1:D:222:TRP:HB2	2.35	0.57
1:E:127:ALA:O	1:E:130:ILE:N	2.38	0.57
1:E:356:VAL:HG23	1:E:357:LEU:HD12	1.86	0.57
1:F:114:LYS:HE3	1:F:115:VAL:N	2.19	0.57
1:F:122:THR:O	1:F:125:ALA:HB3	2.04	0.57
1:F:198:PHE:CD1	1:F:198:PHE:O	2.57	0.57
1:F:294:LEU:CD1	1:F:344:LYS:O	2.52	0.57
1:F:312:GLU:OE1	1:F:340:ARG:NH1	2.37	0.57
1:G:112:VAL:HG12	1:G:231:ARG:HH21	1.69	0.57
1:G:153:PRO:HB3	1:G:222:TRP:HZ3	1.61	0.57
1:G:249:SER:CA	1:G:262:ARG:NH2	2.66	0.57
1:G:375:VAL:CG1	1:G:376:SER:N	2.68	0.57
1:H:111:TYR:CE2	1:H:112:VAL:CG1	2.86	0.57
1:A:248:LEU:HB2	1:A:262:ARG:HH21	1.69	0.57
1:B:293:ILE:HG23	1:B:318:PRO:HA	1.87	0.57
1:C:248:LEU:HD21	1:C:265:VAL:HG11	1.87	0.57
1:G:182:VAL:O	1:G:182:VAL:CG2	2.52	0.57
1:G:285:GLU:OE1	1:G:285:GLU:HA	2.04	0.57
1:H:153:PRO:CA	1:H:222:TRP:CZ3	2.88	0.57
1:H:269:LEU:HB3	1:H:346:VAL:HG23	1.84	0.57
1:H:278:GLN:O	1:H:338:VAL:HA	2.04	0.57
1:H:368:ILE:O	1:H:371:TYR:HB2	2.04	0.57
1:A:153:PRO:CB	1:A:222:TRP:HZ3	2.16	0.57
1:A:309:GLU:HG3	1:A:310:PHE:N	2.19	0.57
1:C:135:LEU:HD12	1:C:136:PHE:N	2.19	0.57
1:C:172:PHE:O	1:C:224:ILE:CD1	2.52	0.57
1:D:113:ARG:NH2	1:D:146:ASP:OD1	2.38	0.57
1:D:247:PHE:CE1	1:D:294:LEU:CB	2.87	0.57
1:E:365:LYS:CA	1:E:368:ILE:HG13	2.34	0.57
1:F:293:ILE:HA	1:F:345:CYS:SG	2.45	0.57
1:G:252:SER:O	1:G:255:GLU:HB2	2.04	0.57
1:G:253:ILE:HG23	1:G:321:TYR:HE2	1.70	0.57
1:A:171:ASN:H	1:A:209:ARG:HH22	1.53	0.57
1:A:292:ILE:HB	1:A:346:VAL:HG13	1.86	0.57
1:A:324:GLU:CG	1:A:325:ILE:N	2.67	0.57
1:B:121:LYS:O	1:B:124:ALA:N	2.38	0.57
1:B:284:GLY:O	1:B:332:PRO:HB3	2.05	0.57
1:C:281:VAL:O	1:C:336:THR:HA	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:136:PHE:O	1:D:139:LEU:CD1	2.52	0.57
1:E:170:ASP:H	1:E:209:ARG:NH2	2.02	0.57
1:E:269:LEU:HB3	1:E:346:VAL:HG22	1.85	0.57
1:E:291:PHE:CD1	1:E:347:LYS:NZ	2.73	0.57
1:F:153:PRO:HB3	1:F:222:TRP:HZ3	1.67	0.57
1:F:366:ARG:CG	1:F:367:ASN:N	2.67	0.57
1:G:118:LYS:NZ	1:G:151:MET:O	2.34	0.57
1:G:140:ASP:OD1	1:G:140:ASP:C	2.43	0.57
1:G:175:ILE:CD1	1:G:194:GLU:HA	2.34	0.57
1:H:162:VAL:HG22	1:H:213:VAL:O	2.05	0.57
1:H:327:LEU:HD23	1:H:353:PHE:CD2	2.40	0.57
1:B:272:VAL:HG22	1:B:273:GLN:N	2.20	0.57
1:B:329:MET:HA	1:B:329:MET:CE	2.35	0.57
1:C:247:PHE:HE1	1:C:294:LEU:HB3	1.70	0.57
1:C:325:ILE:HG13	1:C:326:ALA:H	1.70	0.57
1:D:152:PHE:N	1:D:152:PHE:CD1	2.68	0.57
1:E:140:ASP:C	1:E:140:ASP:OD1	2.43	0.57
1:E:178:GLY:HA3	1:E:219:VAL:CG1	2.26	0.57
1:E:226:ARG:HA	1:E:229:TYR:HB3	1.86	0.57
1:E:294:LEU:CD1	1:E:344:LYS:O	2.51	0.57
1:E:365:LYS:HA	1:E:368:ILE:CG1	2.35	0.57
1:F:151:MET:HA	1:F:224:ILE:HG22	1.85	0.57
1:F:278:GLN:O	1:F:338:VAL:HG22	2.05	0.57
1:H:120:TYR:C	1:H:120:TYR:HD2	2.04	0.57
1:H:211:ASP:OD2	2:H:401:CMP:N3	2.38	0.57
1:A:224:ILE:HD12	1:A:224:ILE:H	1.68	0.56
1:B:239:ARG:C	1:B:241:ARG:N	2.53	0.56
1:B:274:PHE:CD2	1:B:343:LEU:HD23	2.40	0.56
1:F:129:ALA:CB	1:F:222:TRP:HE1	2.18	0.56
1:F:269:LEU:HD23	1:F:348:LEU:CD1	2.35	0.56
1:G:177:GLN:HA	1:G:194:GLU:HG3	1.86	0.56
1:G:296:GLY:HA3	1:G:342:PRO:O	2.05	0.56
1:G:324:GLU:HB2	1:G:364:LEU:HD13	1.86	0.56
1:H:293:ILE:CD1	1:H:343:LEU:HD11	2.32	0.56
1:A:180:MET:O	1:A:191:SER:HA	2.05	0.56
1:A:247:PHE:C	1:A:247:PHE:CD2	2.77	0.56
1:B:162:VAL:CG2	1:B:163:ILE:HG13	2.34	0.56
1:E:281:VAL:HG12	1:E:333:ARG:HG3	1.86	0.56
1:G:222:TRP:HA	1:G:222:TRP:HE3	1.69	0.56
1:H:152:PHE:HD2	1:H:152:PHE:H	1.54	0.56
1:H:154:VAL:O	1:H:221:LEU:N	2.29	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:118:LYS:CB	1:A:123:MET:HE2	2.33	0.56
1:A:194:GLU:O	1:A:355:ARG:HD2	2.05	0.56
1:A:201:LEU:HD13	2:A:401:CMP:H2'	1.87	0.56
1:A:366:ARG:O	1:A:369:GLN:CB	2.54	0.56
1:C:138:HIS:HE2	1:C:236:SER:HB3	1.69	0.56
1:C:252:SER:OG	1:C:253:ILE:N	2.37	0.56
1:C:266:ALA:N	1:C:269:LEU:HD11	2.20	0.56
1:C:294:LEU:O	1:C:318:PRO:HB3	2.04	0.56
1:D:263:LEU:O	1:D:266:ALA:N	2.39	0.56
1:D:365:LYS:HA	1:D:368:ILE:CG1	2.36	0.56
1:E:246:GLU:C	1:E:248:LEU:N	2.55	0.56
1:E:253:ILE:HD13	1:E:321:TYR:CE2	2.40	0.56
1:F:210:ALA:N	1:F:211:ASP:OD1	2.38	0.56
1:G:139:LEU:HD22	1:G:144:ARG:HA	1.88	0.56
1:G:204:ILE:CG2	1:G:205:TYR:CD2	2.84	0.56
1:G:259:LYS:HG3	1:G:260:TRP:H	1.68	0.56
1:G:293:ILE:HG23	1:G:318:PRO:HA	1.87	0.56
1:G:366:ARG:O	1:G:369:GLN:HB2	2.05	0.56
1:H:114:LYS:HZ2	1:H:114:LYS:CA	2.11	0.56
1:H:130:ILE:HD13	1:H:151:MET:CE	2.35	0.56
1:H:172:PHE:HD2	1:H:224:ILE:HD11	1.70	0.56
1:H:253:ILE:HG13	1:H:254:LEU:HD23	1.87	0.56
1:H:301:LEU:HB3	1:H:311:VAL:O	2.04	0.56
1:H:371:TYR:CE1	2:H:402:CMP:C4	2.94	0.56
1:A:175:ILE:CD1	1:A:195:GLY:H	2.18	0.56
1:B:120:TYR:O	1:B:121:LYS:C	2.41	0.56
1:B:266:ALA:O	1:B:267:ASP:C	2.43	0.56
1:F:130:ILE:CD1	1:F:136:PHE:CD2	2.89	0.56
1:F:133:ASN:ND2	1:F:174:VAL:HG21	2.19	0.56
1:A:175:ILE:HD12	1:A:175:ILE:C	2.22	0.56
1:A:298:ALA:HB3	1:A:316:LEU:HD11	1.86	0.56
1:A:325:ILE:CD1	1:A:334:ALA:CB	2.84	0.56
1:B:246:GLU:C	1:B:248:LEU:N	2.59	0.56
1:C:365:LYS:HA	1:C:368:ILE:CG1	2.36	0.56
1:D:153:PRO:HA	1:D:222:TRP:CE3	2.40	0.56
1:H:190:THR:HG22	1:H:191:SER:N	2.07	0.56
1:H:291:PHE:HB2	1:H:322:PHE:CE1	2.40	0.56
1:A:183:TYR:HD1	1:A:188:TRP:CB	2.19	0.56
1:A:246:GLU:O	1:A:249:SER:N	2.38	0.56
1:B:139:LEU:HD21	1:B:147:ILE:HD13	1.86	0.56
1:B:362:ASP:OD1	1:B:362:ASP:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:118:LYS:NZ	1:C:151:MET:O	2.32	0.56
1:C:350:ARG:HB3	1:C:351:PRO:HD3	1.87	0.56
1:D:118:LYS:NZ	1:D:151:MET:O	2.32	0.56
1:D:324:GLU:HB2	1:D:364:LEU:CD1	2.36	0.56
1:E:203:LEU:CD2	1:E:226:ARG:HB3	2.31	0.56
1:F:161:THR:HG23	1:F:214:LYS:HD3	1.87	0.56
1:H:158:ALA:HB2	1:H:217:THR:O	2.05	0.56
1:H:266:ALA:O	1:H:268:ALA:N	2.39	0.56
1:H:362:ASP:N	1:H:365:LYS:HZ2	2.03	0.56
1:A:120:TYR:HD1	1:B:148:PHE:CB	2.14	0.56
1:A:163:ILE:O	1:A:212:THR:HG22	2.06	0.56
1:A:278:GLN:HG3	1:A:279:LYS:H	1.69	0.56
1:A:279:LYS:HB2	1:A:337:VAL:O	2.05	0.56
1:A:290:PHE:HB2	1:A:327:LEU:CD2	2.36	0.56
1:B:278:GLN:HG3	1:B:279:LYS:N	2.17	0.56
1:B:281:VAL:CG1	1:B:333:ARG:HG3	2.35	0.56
1:C:300:VAL:C	1:C:301:LEU:HD12	2.24	0.56
1:C:325:ILE:O	1:C:328:LEU:N	2.39	0.56
1:D:171:ASN:OD1	1:D:225:ASP:HA	2.06	0.56
1:D:230:ARG:O	1:D:234:MET:CB	2.52	0.56
1:E:188:TRP:CH2	1:E:190:THR:HA	2.40	0.56
1:E:247:PHE:CD2	1:E:247:PHE:O	2.58	0.56
1:E:260:TRP:CG	2:E:401:CMP:N7	2.74	0.56
1:E:327:LEU:HD23	1:E:353:PHE:CE2	2.40	0.56
1:F:365:LYS:CA	1:F:368:ILE:HG13	2.35	0.56
1:G:280:ILE:HD13	1:G:322:PHE:CE2	2.41	0.56
1:G:280:ILE:HD13	1:G:322:PHE:HZ	1.69	0.56
1:H:172:PHE:O	1:H:224:ILE:CD1	2.53	0.56
1:H:289:GLU:HB3	1:H:347:LYS:NZ	2.21	0.56
1:A:113:ARG:O	1:D:113:ARG:O	2.24	0.56
1:A:246:GLU:C	1:A:248:LEU:N	2.53	0.56
1:B:281:VAL:HG13	1:B:333:ARG:HG3	1.86	0.56
1:B:353:PHE:O	1:B:357:LEU:HB2	2.06	0.56
1:E:130:ILE:CD1	1:E:151:MET:CE	2.84	0.56
1:E:148:PHE:CD1	1:F:120:TYR:HD1	2.24	0.56
1:E:203:LEU:CD1	1:E:226:ARG:HB3	2.36	0.56
1:E:204:ILE:CG2	1:E:205:TYR:CD2	2.88	0.56
1:G:245:GLU:OE1	1:G:246:GLU:OE1	2.23	0.56
1:A:158:ALA:CB	1:A:217:THR:O	2.54	0.56
1:A:316:LEU:C	1:A:316:LEU:CD1	2.69	0.56
1:B:272:VAL:CG2	1:B:273:GLN:HE22	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:350:ARG:O	1:B:353:PHE:CB	2.51	0.56
1:C:139:LEU:HD22	1:C:144:ARG:HA	1.86	0.56
1:C:175:ILE:HD11	1:C:196:GLY:N	2.20	0.56
1:C:282:VAL:O	1:C:333:ARG:HB2	2.06	0.56
1:C:295:GLU:O	1:C:344:LYS:N	2.39	0.56
1:D:293:ILE:HG23	1:D:318:PRO:HA	1.88	0.56
1:E:269:LEU:HD23	1:E:348:LEU:HD11	1.87	0.56
1:F:269:LEU:HD23	1:F:348:LEU:HD11	1.87	0.56
1:G:170:ASP:H	1:G:209:ARG:NH2	2.03	0.56
1:G:366:ARG:CG	1:G:367:ASN:N	2.68	0.56
1:H:350:ARG:O	1:H:353:PHE:CB	2.54	0.56
1:A:157:ILE:HA	1:A:218:ASN:OD1	2.06	0.56
1:B:247:PHE:CE1	1:B:294:LEU:CA	2.86	0.56
1:B:311:VAL:CG1	1:B:312:GLU:N	2.69	0.56
1:B:366:ARG:O	1:B:369:GLN:CB	2.54	0.56
1:C:162:VAL:HG23	1:C:163:ILE:HG13	1.86	0.56
1:E:120:TYR:CE1	1:F:148:PHE:CD1	2.94	0.56
1:E:203:LEU:HD22	1:E:226:ARG:CG	2.36	0.56
1:H:174:VAL:HA	1:H:196:GLY:O	2.06	0.56
1:H:182:VAL:HA	1:H:212:THR:O	2.06	0.56
1:B:282:VAL:O	1:B:285:GLU:CG	2.51	0.55
1:C:179:GLU:HG2	1:C:216:LYS:HD3	1.86	0.55
1:C:196:GLY:HA2	1:C:355:ARG:HH22	1.62	0.55
1:D:200:GLU:HG2	1:D:201:LEU:CD1	2.36	0.55
1:D:295:GLU:O	1:D:343:LEU:HD12	2.06	0.55
1:D:366:ARG:O	1:D:369:GLN:CB	2.54	0.55
1:E:130:ILE:HD13	1:E:151:MET:HE2	1.86	0.55
1:E:278:GLN:HG3	1:E:279:LYS:N	2.10	0.55
1:F:113:ARG:HD3	1:F:146:ASP:OD2	2.05	0.55
1:G:162:VAL:HG23	1:G:163:ILE:N	2.21	0.55
1:G:174:VAL:CG1	1:G:222:TRP:HB2	2.37	0.55
1:A:144:ARG:CG	1:A:145:SER:N	2.69	0.55
1:A:158:ALA:HA	1:A:217:THR:O	2.07	0.55
1:A:183:TYR:HD1	1:A:188:TRP:CA	2.19	0.55
1:B:122:THR:O	1:B:125:ALA:HB3	2.07	0.55
1:B:260:TRP:CD2	2:B:401:CMP:N7	2.75	0.55
1:B:260:TRP:NE1	2:B:401:CMP:C8	2.68	0.55
1:C:131:GLU:C	1:C:133:ASN:N	2.58	0.55
1:C:158:ALA:CB	1:C:217:THR:O	2.54	0.55
1:F:300:VAL:HA	1:F:336:THR:O	2.06	0.55
1:G:226:ARG:NH1	1:G:226:ARG:CG	2.56	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:182:VAL:CG2	1:H:190:THR:O	2.41	0.55
1:A:134:VAL:O	1:A:137:SER:HB3	2.07	0.55
1:A:205:TYR:HD2	1:A:205:TYR:N	2.04	0.55
1:A:273:GLN:CB	1:A:344:LYS:HA	2.36	0.55
1:A:278:GLN:CG	1:A:279:LYS:N	2.69	0.55
1:B:249:SER:CA	1:B:262:ARG:NH2	2.65	0.55
1:C:140:ASP:C	1:C:140:ASP:OD1	2.45	0.55
1:C:285:GLU:OE1	1:C:285:GLU:CA	2.54	0.55
1:C:293:ILE:HG23	1:C:318:PRO:HA	1.87	0.55
1:D:173:TYR:HB2	1:D:198:PHE:HE1	1.70	0.55
1:E:230:ARG:CZ	1:E:234:MET:HE1	2.37	0.55
1:G:350:ARG:HB3	1:G:351:PRO:CD	2.32	0.55
1:H:224:ILE:O	1:H:224:ILE:HD13	2.07	0.55
1:H:353:PHE:O	1:H:357:LEU:HB2	2.05	0.55
1:A:266:ALA:O	1:A:267:ASP:C	2.44	0.55
1:B:200:GLU:O	1:B:201:LEU:C	2.45	0.55
1:C:158:ALA:CA	1:C:217:THR:O	2.54	0.55
1:C:171:ASN:H	1:C:209:ARG:HH22	1.53	0.55
1:C:327:LEU:HD23	1:C:353:PHE:CZ	2.41	0.55
1:C:329:MET:HA	1:C:329:MET:HE2	1.87	0.55
1:E:131:GLU:H	1:E:131:GLU:CD	2.09	0.55
1:E:260:TRP:NE1	2:E:401:CMP:H2'	2.20	0.55
1:G:242:LYS:HD3	1:G:242:LYS:N	2.15	0.55
1:G:246:GLU:C	1:G:248:LEU:N	2.53	0.55
1:G:371:TYR:OH	2:G:402:CMP:C2'	2.55	0.55
1:H:127:ALA:O	1:H:130:ILE:HG22	2.07	0.55
1:H:153:PRO:CB	1:H:222:TRP:CZ3	2.88	0.55
1:H:303:ARG:CB	1:H:310:PHE:CZ	2.90	0.55
1:H:353:PHE:CE1	1:H:357:LEU:HD22	2.41	0.55
1:A:112:VAL:CA	1:A:112:VAL:HB	2.17	0.55
1:A:144:ARG:O	1:A:147:ILE:HG12	2.06	0.55
1:A:173:TYR:CD2	1:A:198:PHE:CE1	2.85	0.55
1:A:254:LEU:HA	1:A:360:CYS:SG	2.46	0.55
1:B:182:VAL:CG2	1:B:190:THR:H	2.20	0.55
1:B:291:PHE:CD2	1:B:347:LYS:NZ	2.66	0.55
1:B:366:ARG:O	1:B:369:GLN:HB2	2.07	0.55
1:C:188:TRP:CZ3	1:C:190:THR:O	2.59	0.55
1:C:278:GLN:O	1:C:338:VAL:CA	2.53	0.55
1:E:120:TYR:C	1:E:120:TYR:HD2	2.09	0.55
1:E:154:VAL:O	1:E:221:LEU:N	2.29	0.55
1:E:260:TRP:CD2	2:E:401:CMP:C8	2.90	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:342:PRO:O	1:F:342:PRO:HG2	2.06	0.55
1:G:353:PHE:CE1	1:G:357:LEU:CD2	2.89	0.55
1:H:172:PHE:CE1	1:H:200:GLU:HB3	2.41	0.55
1:H:283:GLN:CG	1:H:333:ARG:O	2.55	0.55
1:A:126:LEU:O	1:A:126:LEU:CD1	2.41	0.55
1:B:210:ALA:C	1:B:211:ASP:OD1	2.45	0.55
1:B:253:ILE:C	1:B:255:GLU:H	2.10	0.55
1:C:247:PHE:HE1	1:C:294:LEU:CB	2.18	0.55
1:D:175:ILE:HG21	1:D:180:MET:HG3	1.87	0.55
1:E:280:ILE:HB	1:E:291:PHE:CE2	2.41	0.55
1:F:133:ASN:O	1:F:135:LEU:HD12	2.07	0.55
1:F:173:TYR:CD2	1:F:198:PHE:CE1	2.94	0.55
1:F:310:PHE:O	1:F:311:VAL:HG13	2.07	0.55
1:G:153:PRO:CA	1:G:222:TRP:CZ3	2.89	0.55
1:G:247:PHE:CE1	1:G:294:LEU:HB3	2.41	0.55
1:G:256:SER:OG	1:G:363:ILE:CD1	2.55	0.55
1:A:111:TYR:CA	1:D:115:VAL:HG23	2.33	0.55
1:A:270:GLU:O	1:A:346:VAL:HA	2.06	0.55
1:B:260:TRP:NE1	2:B:401:CMP:N9	2.54	0.55
1:D:220:LYS:O	1:D:221:LEU:HD23	2.06	0.55
1:D:224:ILE:HD13	1:D:224:ILE:H	1.71	0.55
1:D:260:TRP:NE1	2:D:401:CMP:C2'	2.69	0.55
1:E:148:PHE:HD1	1:F:120:TYR:CD1	2.24	0.55
1:F:134:VAL:O	1:F:137:SER:HB3	2.06	0.55
1:F:246:GLU:O	1:F:248:LEU:N	2.39	0.55
1:H:247:PHE:CE1	1:H:294:LEU:CB	2.89	0.55
1:H:266:ALA:O	1:H:267:ASP:C	2.45	0.55
1:H:274:PHE:CE2	1:H:280:ILE:HG22	2.42	0.55
1:H:365:LYS:O	1:H:368:ILE:N	2.30	0.55
1:A:113:ARG:NH2	1:D:115:VAL:CA	2.70	0.55
1:A:203:LEU:HD12	1:A:229:TYR:HD2	1.70	0.55
1:B:272:VAL:HG23	1:B:273:GLN:HE22	1.71	0.55
1:C:174:VAL:CG1	1:C:222:TRP:HB2	2.37	0.55
1:C:183:TYR:CD1	1:C:188:TRP:HB2	2.41	0.55
1:C:198:PHE:CD1	1:C:198:PHE:N	2.73	0.55
1:D:127:ALA:O	1:D:130:ILE:N	2.38	0.55
1:D:152:PHE:CD1	1:D:152:PHE:O	2.60	0.55
1:D:324:GLU:CG	1:D:325:ILE:N	2.44	0.55
1:E:162:VAL:HG22	1:E:213:VAL:O	2.07	0.55
1:E:302:GLN:O	1:E:309:GLU:O	2.24	0.55
1:F:179:GLU:CG	1:F:216:LYS:HD2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:353:PHE:CE1	1:F:357:LEU:CD2	2.90	0.55
1:G:291:PHE:CD1	1:G:347:LYS:NZ	2.74	0.55
1:A:113:ARG:NH2	1:D:115:VAL:N	2.55	0.55
1:A:144:ARG:HG2	1:A:145:SER:N	2.22	0.55
1:A:278:GLN:HG3	1:A:279:LYS:N	2.22	0.55
1:B:352:ARG:O	1:B:355:ARG:HB2	2.07	0.55
1:C:160:GLU:O	1:C:214:LYS:HA	2.06	0.55
1:C:259:LYS:O	1:C:260:TRP:C	2.45	0.55
1:C:260:TRP:NE1	2:C:401:CMP:H2'	2.16	0.55
1:D:317:GLY:O	1:D:320:ASP:HB2	2.06	0.55
1:E:175:ILE:HG22	1:E:221:LEU:CD2	2.37	0.55
1:E:230:ARG:CG	1:E:234:MET:HE1	2.35	0.55
1:E:282:VAL:O	1:E:285:GLU:CG	2.47	0.55
1:F:251:VAL:CG1	1:F:254:LEU:CD2	2.66	0.55
1:G:149:ASP:OD1	1:H:120:TYR:N	2.39	0.55
1:G:149:ASP:OD1	1:H:120:TYR:HB2	2.06	0.55
1:G:300:VAL:CG1	1:G:335:ALA:HB1	2.36	0.55
1:H:175:ILE:CD1	1:H:194:GLU:CA	2.85	0.55
1:H:196:GLY:HA2	1:H:355:ARG:HH21	1.70	0.55
1:A:111:TYR:CE2	1:A:113:ARG:N	2.75	0.55
1:A:151:MET:HA	1:A:224:ILE:HG22	1.88	0.55
1:A:175:ILE:HA	1:A:221:LEU:HD21	1.83	0.55
1:B:139:LEU:CD2	1:B:147:ILE:HD13	2.36	0.55
1:C:280:ILE:HD12	1:C:281:VAL:HG23	1.88	0.55
1:D:353:PHE:HE1	1:D:357:LEU:HD22	1.61	0.55
1:E:265:VAL:HG12	1:E:269:LEU:CG	2.36	0.55
1:H:300:VAL:CG2	1:H:314:GLY:O	2.55	0.55
1:A:301:LEU:CB	1:A:310:PHE:HE2	1.95	0.54
1:A:328:LEU:CD2	1:A:365:LYS:HE3	2.34	0.54
1:B:253:ILE:O	1:B:255:GLU:N	2.40	0.54
1:C:179:GLU:CG	1:C:216:LYS:HD2	2.32	0.54
1:G:188:TRP:CH2	1:G:190:THR:HA	2.42	0.54
1:A:115:VAL:CG2	1:D:111:TYR:CD2	2.90	0.54
1:A:253:ILE:CG2	1:A:321:TYR:HE2	2.21	0.54
1:A:325:ILE:CD1	1:A:334:ALA:HB3	2.37	0.54
1:B:134:VAL:HG11	1:B:268:ALA:CA	2.33	0.54
1:B:368:ILE:O	1:B:371:TYR:HB2	2.08	0.54
1:C:246:GLU:O	1:C:248:LEU:N	2.40	0.54
1:C:329:MET:CE	1:C:329:MET:CA	2.81	0.54
1:D:175:ILE:HD11	1:D:193:GLY:O	2.07	0.54
1:E:270:GLU:HB2	1:E:271:PRO:CD	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:289:GLU:CG	1:E:347:LYS:NZ	2.66	0.54
1:E:318:PRO:O	1:E:319:SER:HB3	2.07	0.54
1:F:211:ASP:OD1	1:F:211:ASP:N	2.39	0.54
1:F:300:VAL:O	1:F:312:GLU:HA	2.07	0.54
1:G:198:PHE:CD1	1:G:198:PHE:N	2.73	0.54
1:H:172:PHE:CD2	1:H:224:ILE:HD11	2.43	0.54
1:A:120:TYR:HD2	1:A:120:TYR:O	1.86	0.54
1:A:177:GLN:HA	1:A:194:GLU:HG3	1.88	0.54
1:D:153:PRO:CA	1:D:222:TRP:HZ3	2.20	0.54
1:B:131:GLU:C	1:B:133:ASN:N	2.59	0.54
1:B:204:ILE:HG23	1:B:234:MET:SD	2.47	0.54
1:C:120:TYR:CD1	1:D:148:PHE:HB3	2.37	0.54
1:C:135:LEU:CD1	1:C:136:PHE:N	2.71	0.54
1:C:363:ILE:O	1:C:366:ARG:CG	2.54	0.54
1:D:247:PHE:CZ	1:D:294:LEU:HA	2.41	0.54
1:D:357:LEU:O	1:D:360:CYS:HB2	2.08	0.54
1:D:361:SER:C	1:D:365:LYS:NZ	2.57	0.54
1:E:280:ILE:HD12	1:E:281:VAL:CG2	2.37	0.54
1:F:153:PRO:CB	1:F:222:TRP:HZ3	2.19	0.54
1:F:253:ILE:HG21	1:F:321:TYR:CE2	2.42	0.54
1:F:260:TRP:CG	2:F:401:CMP:N7	2.75	0.54
1:F:325:ILE:O	1:F:328:LEU:N	2.41	0.54
1:G:116:ILE:CB	1:G:118:LYS:NZ	2.71	0.54
1:A:164:GLN:HA	1:A:212:THR:CG2	2.38	0.54
1:A:294:LEU:O	1:A:295:GLU:HG3	2.07	0.54
1:B:173:TYR:CD2	1:B:198:PHE:CE1	2.94	0.54
1:C:110:SER:CB	1:F:114:LYS:NZ	2.71	0.54
1:C:171:ASN:OD1	1:C:225:ASP:HA	2.07	0.54
1:E:220:LYS:O	1:E:221:LEU:HD23	2.08	0.54
1:E:226:ARG:NH1	1:E:226:ARG:CG	2.61	0.54
1:E:348:LEU:CD2	1:E:356:VAL:CG2	2.86	0.54
1:E:368:ILE:O	1:E:371:TYR:HB2	2.07	0.54
1:F:130:ILE:CD1	1:F:151:MET:CE	2.85	0.54
1:F:182:VAL:O	1:F:182:VAL:CG2	2.45	0.54
1:G:260:TRP:CE2	2:G:401:CMP:C8	2.90	0.54
1:G:363:ILE:O	1:G:366:ARG:HG2	2.08	0.54
1:H:164:GLN:HA	1:H:212:THR:HG22	1.89	0.54
1:H:291:PHE:HD2	1:H:322:PHE:CZ	2.20	0.54
1:H:295:GLU:HG2	1:H:318:PRO:CG	2.37	0.54
1:A:175:ILE:HD11	1:A:194:GLU:CA	2.37	0.54
1:A:316:LEU:CB	1:A:320:ASP:OD2	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:289:GLU:HG3	1:B:347:LYS:HZ1	1.71	0.54
1:C:131:GLU:O	1:C:133:ASN:N	2.40	0.54
1:C:246:GLU:O	1:C:249:SER:N	2.40	0.54
1:C:247:PHE:C	1:C:247:PHE:HD2	2.08	0.54
1:C:327:LEU:HD23	1:C:353:PHE:CD2	2.42	0.54
1:E:175:ILE:HD11	1:E:193:GLY:O	2.07	0.54
1:F:280:ILE:HD13	1:F:322:PHE:HZ	1.68	0.54
1:F:365:LYS:C	1:F:368:ILE:HG13	2.26	0.54
1:H:188:TRP:CZ3	1:H:190:THR:O	2.60	0.54
1:B:120:TYR:CE2	1:B:124:ALA:HB2	2.41	0.54
1:B:147:ILE:HG23	1:B:232:ILE:CD1	2.38	0.54
1:B:350:ARG:O	1:B:353:PHE:N	2.40	0.54
1:C:211:ASP:OD1	1:C:211:ASP:N	2.41	0.54
1:D:262:ARG:HA	1:D:265:VAL:CG2	2.38	0.54
1:D:300:VAL:HG13	1:D:314:GLY:H	1.72	0.54
1:E:265:VAL:O	1:E:269:LEU:CG	2.42	0.54
1:E:280:ILE:CD1	1:E:281:VAL:CG2	2.86	0.54
1:F:365:LYS:HA	1:F:368:ILE:CG1	2.38	0.54
1:G:183:TYR:HE1	1:G:188:TRP:HB2	1.70	0.54
1:G:230:ARG:NH1	1:G:234:MET:CE	2.70	0.54
1:G:255:GLU:OE1	1:G:255:GLU:CA	2.44	0.54
1:A:113:ARG:NH2	1:D:115:VAL:CG1	2.68	0.54
1:A:139:LEU:HB3	1:A:143:GLU:HB2	1.90	0.54
1:A:265:VAL:O	1:A:269:LEU:HG	2.08	0.54
1:A:273:GLN:HB3	1:A:344:LYS:HA	1.89	0.54
1:A:365:LYS:O	1:A:368:ILE:CG1	2.45	0.54
1:C:115:VAL:HA	1:C:149:ASP:CB	2.27	0.54
1:D:151:MET:HA	1:D:224:ILE:CG2	2.37	0.54
1:E:165:GLN:HG2	1:E:166:GLY:N	2.22	0.54
1:E:182:VAL:O	1:E:182:VAL:CG2	2.45	0.54
1:E:299:ALA:HB3	1:E:338:VAL:HG12	1.89	0.54
1:G:130:ILE:HG23	1:G:131:GLU:N	2.23	0.54
1:G:201:LEU:H	1:G:201:LEU:HD12	1.72	0.54
1:G:201:LEU:HD13	2:G:401:CMP:H2'	1.89	0.54
1:G:251:VAL:CG1	1:G:254:LEU:CD2	2.78	0.54
1:G:282:VAL:O	1:G:285:GLU:CG	2.56	0.54
1:H:300:VAL:O	1:H:312:GLU:CB	2.55	0.54
1:B:152:PHE:CD2	1:B:152:PHE:C	2.77	0.54
1:B:360:CYS:O	1:B:364:LEU:HD23	2.08	0.54
1:C:175:ILE:CD1	1:C:194:GLU:HA	2.35	0.54
1:C:246:GLU:C	1:C:248:LEU:N	2.60	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:147:ILE:HG23	1:D:232:ILE:HD13	1.89	0.54
1:E:226:ARG:HH11	1:E:226:ARG:CG	2.02	0.54
1:E:263:LEU:O	1:E:267:ASP:N	2.34	0.54
1:E:280:ILE:CG1	1:E:281:VAL:HG23	2.37	0.54
1:E:366:ARG:CG	1:E:367:ASN:N	2.70	0.54
1:F:120:TYR:C	1:F:120:TYR:CD2	2.81	0.54
1:F:188:TRP:CZ3	1:F:190:THR:C	2.81	0.54
1:F:246:GLU:C	1:F:248:LEU:N	2.57	0.54
1:H:152:PHE:CD2	1:H:152:PHE:N	2.76	0.54
1:H:172:PHE:O	1:H:224:ILE:HD12	2.08	0.54
1:H:230:ARG:CZ	1:H:234:MET:HE3	2.38	0.54
1:H:252:SER:OG	1:H:253:ILE:HG23	2.08	0.54
1:H:270:GLU:OE1	1:H:347:LYS:HB2	2.08	0.54
1:H:324:GLU:HB2	1:H:364:LEU:HD13	1.90	0.54
1:B:247:PHE:CZ	1:B:294:LEU:HA	2.43	0.54
1:C:112:VAL:HB	1:C:231:ARG:NH2	2.23	0.54
1:C:202:ALA:HB1	1:C:207:THR:O	2.08	0.54
1:C:279:LYS:CE	1:C:336:THR:HG21	2.37	0.54
1:D:198:PHE:HD1	1:D:198:PHE:N	2.05	0.54
1:D:260:TRP:CD1	2:D:401:CMP:C5	2.96	0.54
1:E:285:GLU:OE1	1:E:285:GLU:HA	2.07	0.54
1:E:361:SER:O	1:E:364:LEU:HG	2.08	0.54
1:F:201:LEU:HD13	2:F:401:CMP:H2'	1.89	0.54
1:F:230:ARG:HG2	1:F:230:ARG:NH1	2.23	0.54
1:G:289:GLU:HG2	1:G:347:LYS:HZ3	1.73	0.54
1:H:165:GLN:HG2	1:H:166:GLY:N	2.21	0.54
1:H:245:GLU:OE1	1:H:246:GLU:N	2.40	0.54
1:H:273:GLN:HG3	1:H:344:LYS:HD2	1.90	0.54
1:H:325:ILE:HG13	1:H:326:ALA:H	1.72	0.54
1:A:153:PRO:HB3	1:A:222:TRP:HZ3	1.64	0.53
1:A:224:ILE:HD13	1:A:224:ILE:H	1.72	0.53
1:A:269:LEU:HD22	1:A:346:VAL:HG22	1.88	0.53
1:B:247:PHE:C	1:B:247:PHE:CD2	2.81	0.53
1:B:375:VAL:C	1:C:306:GLU:HA	2.28	0.53
1:C:118:LYS:O	1:D:117:PRO:O	2.26	0.53
1:C:328:LEU:CD2	1:C:365:LYS:HE3	2.37	0.53
1:C:365:LYS:CA	1:C:368:ILE:HG13	2.37	0.53
1:D:175:ILE:HG22	1:D:221:LEU:HD21	1.89	0.53
1:E:116:ILE:CG2	1:E:118:LYS:NZ	2.70	0.53
1:E:135:LEU:HD12	1:E:135:LEU:N	2.23	0.53
1:E:173:TYR:CD2	1:E:198:PHE:CZ	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:274:PHE:CD2	1:F:280:ILE:HG22	2.43	0.53
1:F:316:LEU:HA	1:F:320:ASP:OD2	2.08	0.53
1:H:300:VAL:HA	1:H:336:THR:O	2.08	0.53
1:A:113:ARG:HE	1:D:113:ARG:C	2.10	0.53
1:A:324:GLU:HB2	1:A:364:LEU:HD13	1.90	0.53
1:B:311:VAL:HG12	1:B:312:GLU:N	2.23	0.53
1:E:224:ILE:CD1	1:E:224:ILE:H	2.22	0.53
1:F:175:ILE:HD11	1:F:193:GLY:O	2.08	0.53
1:F:224:ILE:CD1	1:F:224:ILE:H	2.20	0.53
1:F:263:LEU:O	1:F:267:ASP:N	2.35	0.53
1:G:153:PRO:CB	1:G:222:TRP:HZ3	2.19	0.53
1:G:253:ILE:HG13	1:G:254:LEU:CD2	2.38	0.53
1:H:162:VAL:CG2	1:H:213:VAL:O	2.56	0.53
1:H:230:ARG:HG2	1:H:230:ARG:NH1	2.23	0.53
1:A:153:PRO:HA	1:A:222:TRP:CZ3	2.42	0.53
1:A:269:LEU:CB	1:A:346:VAL:HG21	2.36	0.53
1:B:116:ILE:N	1:B:149:ASP:O	2.40	0.53
1:B:272:VAL:HG22	1:B:273:GLN:NE2	2.23	0.53
1:B:315:ARG:O	1:B:316:LEU:HD13	2.09	0.53
1:C:203:LEU:HD13	1:C:226:ARG:HB3	1.89	0.53
1:C:270:GLU:OE1	1:C:347:LYS:HB2	2.08	0.53
1:E:266:ALA:O	1:E:267:ASP:C	2.46	0.53
1:F:289:GLU:HG3	1:F:347:LYS:HZ1	1.64	0.53
1:F:290:PHE:HB2	1:F:327:LEU:HD21	1.90	0.53
1:F:357:LEU:O	1:F:360:CYS:HB2	2.08	0.53
1:G:186:ASN:OD1	1:G:186:ASN:N	2.41	0.53
1:G:263:LEU:O	1:G:267:ASP:N	2.33	0.53
1:G:276:ASP:C	1:G:278:GLN:H	2.09	0.53
1:G:362:ASP:OD1	1:G:362:ASP:N	2.38	0.53
1:G:366:ARG:HG2	1:G:367:ASN:H	1.73	0.53
1:H:118:LYS:NZ	1:H:151:MET:O	2.35	0.53
1:H:253:ILE:O	1:H:255:GLU:N	2.41	0.53
1:H:325:ILE:CD1	1:H:334:ALA:HB3	2.37	0.53
1:A:165:GLN:CA	1:A:211:ASP:O	2.54	0.53
1:B:302:GLN:O	1:B:310:PHE:HB3	2.09	0.53
1:D:200:GLU:OE2	1:D:201:LEU:HD11	2.08	0.53
1:D:229:TYR:O	1:D:233:LEU:HD12	2.08	0.53
1:D:254:LEU:C	1:D:254:LEU:CD2	2.76	0.53
1:E:116:ILE:HG13	1:E:152:PHE:HB3	1.89	0.53
1:E:123:MET:CE	1:F:123:MET:HE3	2.35	0.53
1:F:158:ALA:HB1	1:F:216:LYS:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:159:GLY:O	1:H:243:MET:HE2	2.09	0.53
1:F:362:ASP:N	1:F:362:ASP:OD1	2.41	0.53
1:G:203:LEU:HD12	1:G:229:TYR:HD2	1.73	0.53
1:G:371:TYR:HE1	2:G:402:CMP:C8	2.22	0.53
1:H:114:LYS:HZ2	1:H:115:VAL:N	2.05	0.53
1:H:265:VAL:HG12	1:H:269:LEU:HD11	1.91	0.53
1:A:309:GLU:CG	1:A:310:PHE:N	2.72	0.53
1:B:158:ALA:CB	1:B:216:LYS:O	2.53	0.53
1:C:126:LEU:HD12	1:C:126:LEU:C	2.29	0.53
1:C:210:ALA:N	1:C:211:ASP:OD1	2.42	0.53
1:D:175:ILE:O	1:D:175:ILE:CD1	2.34	0.53
1:E:152:PHE:CE2	1:E:223:GLY:C	2.82	0.53
1:E:198:PHE:HD1	1:E:198:PHE:N	2.06	0.53
1:E:222:TRP:HA	1:E:222:TRP:HE3	1.73	0.53
1:E:247:PHE:HZ	1:E:293:ILE:O	1.92	0.53
1:G:175:ILE:CD1	1:G:193:GLY:O	2.57	0.53
1:H:229:TYR:CE1	1:H:233:LEU:CD1	2.79	0.53
1:A:111:TYR:O	1:A:112:VAL:HG13	2.08	0.53
1:A:293:ILE:HG21	1:A:317:GLY:O	2.08	0.53
1:B:152:PHE:HD2	1:B:152:PHE:H	1.57	0.53
1:B:249:SER:HA	1:B:262:ARG:HH22	1.72	0.53
1:B:285:GLU:HA	1:B:285:GLU:OE1	2.08	0.53
1:B:325:ILE:CD1	1:B:334:ALA:CB	2.86	0.53
1:C:325:ILE:HG13	1:C:326:ALA:N	2.23	0.53
1:D:142:ASN:O	1:D:143:GLU:C	2.43	0.53
1:E:128:LYS:O	1:E:131:GLU:OE1	2.27	0.53
1:E:270:GLU:CB	1:E:271:PRO:CD	2.83	0.53
1:F:247:PHE:CD2	1:F:247:PHE:O	2.61	0.53
1:G:129:ALA:HA	1:G:132:LYS:HE3	1.89	0.53
1:G:280:ILE:HB	1:G:291:PHE:HE2	1.73	0.53
1:H:120:TYR:HD2	1:H:121:LYS:CA	2.20	0.53
1:H:204:ILE:CG2	1:H:205:TYR:HD2	2.18	0.53
1:H:230:ARG:CZ	1:H:234:MET:HE1	2.38	0.53
1:H:279:LYS:HZ3	1:H:336:THR:HG23	1.70	0.53
1:A:260:TRP:CZ2	2:A:401:CMP:C8	2.91	0.53
1:C:300:VAL:HG23	1:C:313:VAL:H	1.73	0.53
1:D:201:LEU:HD13	2:D:401:CMP:H2'	1.90	0.53
1:D:211:ASP:OD1	1:D:211:ASP:N	2.40	0.53
1:E:274:PHE:CD2	1:E:343:LEU:HD23	2.43	0.53
1:F:203:LEU:HD22	1:F:226:ARG:CG	2.38	0.53
1:G:135:LEU:CD1	1:G:136:PHE:N	2.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:129:ALA:HA	1:H:132:LYS:HE3	1.90	0.53
1:H:134:VAL:O	1:H:137:SER:HB3	2.08	0.53
1:A:118:LYS:NZ	1:A:151:MET:O	2.36	0.53
1:A:130:ILE:HD13	1:A:151:MET:CE	2.38	0.53
1:B:157:ILE:HB	1:B:218:ASN:OD1	2.08	0.53
1:B:233:LEU:O	1:B:234:MET:C	2.47	0.53
1:C:134:VAL:HG11	1:C:268:ALA:CA	2.24	0.53
1:C:229:TYR:CE1	1:C:233:LEU:CD1	2.81	0.53
1:C:253:ILE:C	1:C:255:GLU:H	2.11	0.53
1:D:203:LEU:HD22	1:D:226:ARG:CB	2.38	0.53
1:D:260:TRP:CD1	2:D:401:CMP:C4	2.96	0.53
1:D:294:LEU:O	1:D:295:GLU:HG3	2.09	0.53
1:E:205:TYR:HD2	1:E:205:TYR:N	2.07	0.53
1:E:273:GLN:HB2	1:E:343:LEU:O	2.09	0.53
1:E:289:GLU:CG	1:E:347:LYS:HZ1	2.22	0.53
1:E:325:ILE:HG12	2:E:402:CMP:P	2.49	0.53
1:F:297:SER:O	1:F:340:ARG:HB2	2.08	0.53
1:F:328:LEU:HD23	1:F:365:LYS:HE3	1.90	0.53
1:G:205:TYR:HD2	1:G:205:TYR:N	2.06	0.53
1:H:139:LEU:N	1:H:139:LEU:CD1	2.69	0.53
1:H:140:ASP:C	1:H:140:ASP:OD1	2.47	0.53
1:A:291:PHE:HB2	1:A:322:PHE:CE1	2.44	0.53
1:B:261:GLU:O	1:B:262:ARG:C	2.47	0.53
1:B:261:GLU:O	1:B:265:VAL:HG23	2.08	0.53
1:B:321:TYR:C	1:B:321:TYR:HD1	2.09	0.53
1:C:204:ILE:HG21	1:C:205:TYR:CE2	2.44	0.53
1:D:180:MET:HB2	1:D:192:VAL:HG12	1.91	0.53
1:D:233:LEU:CD1	1:D:233:LEU:N	2.46	0.53
1:D:371:TYR:CZ	2:D:402:CMP:C8	2.91	0.53
1:E:203:LEU:HD13	1:E:226:ARG:CB	2.37	0.53
1:F:203:LEU:CD1	1:F:229:TYR:HD2	2.22	0.53
1:G:116:ILE:HG21	1:G:118:LYS:NZ	2.22	0.53
1:H:147:ILE:CG1	1:H:148:PHE:N	2.72	0.53
1:H:220:LYS:C	1:H:221:LEU:HD23	2.28	0.53
1:A:147:ILE:HG22	1:A:232:ILE:HD13	1.90	0.53
1:B:291:PHE:CE2	1:B:347:LYS:NZ	2.77	0.53
1:C:135:LEU:CD1	1:C:136:PHE:H	2.20	0.53
1:C:203:LEU:HD12	1:C:229:TYR:CD2	2.44	0.53
1:C:248:LEU:HD21	1:C:265:VAL:CG1	2.39	0.53
1:C:253:ILE:HG13	1:C:254:LEU:HD23	1.90	0.53
1:C:350:ARG:O	1:C:353:PHE:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:138:HIS:H	1:D:138:HIS:HD1	1.57	0.53
1:D:175:ILE:CD1	1:D:195:GLY:H	2.22	0.53
1:F:131:GLU:O	1:F:132:LYS:C	2.44	0.53
1:F:153:PRO:CA	1:F:222:TRP:HZ3	2.21	0.53
1:F:235:GLY:O	1:F:236:SER:C	2.46	0.53
1:G:353:PHE:CE1	1:G:357:LEU:HD22	2.44	0.53
1:H:300:VAL:O	1:H:312:GLU:HA	2.09	0.53
1:H:313:VAL:CG1	1:H:314:GLY:N	2.71	0.53
1:A:178:GLY:HA3	1:A:219:VAL:CG1	2.17	0.52
1:A:182:VAL:O	1:A:182:VAL:CG2	2.51	0.52
1:A:356:VAL:CG2	1:A:357:LEU:N	2.71	0.52
1:B:133:ASN:C	1:B:133:ASN:OD1	2.47	0.52
1:B:161:THR:OG1	1:B:214:LYS:NZ	2.31	0.52
1:B:177:GLN:O	1:B:219:VAL:HB	2.08	0.52
1:D:159:GLY:O	1:F:243:MET:HE2	2.09	0.52
1:D:272:VAL:HG22	1:D:273:GLN:H	1.74	0.52
1:F:203:LEU:HD22	1:F:226:ARG:CB	2.39	0.52
1:F:254:LEU:HB2	1:F:257:LEU:HD12	1.91	0.52
1:F:329:MET:HA	1:F:329:MET:HE2	1.91	0.52
1:G:196:GLY:HA2	1:G:355:ARG:CZ	2.37	0.52
1:G:280:ILE:HD12	1:G:281:VAL:HG23	1.90	0.52
1:H:111:TYR:HE2	1:H:112:VAL:HG12	1.69	0.52
1:C:120:TYR:CD2	1:C:121:LYS:HA	2.41	0.52
1:D:139:LEU:N	1:D:139:LEU:CD1	2.65	0.52
1:G:122:THR:O	1:G:125:ALA:HB3	2.09	0.52
1:G:171:ASN:H	1:G:209:ARG:HH22	1.58	0.52
1:A:120:TYR:HD2	1:A:121:LYS:N	2.07	0.52
1:A:130:ILE:CD1	1:A:151:MET:HE3	2.39	0.52
1:A:233:LEU:H	1:A:233:LEU:CD1	2.00	0.52
1:A:253:ILE:CG2	1:A:321:TYR:CE2	2.93	0.52
1:C:152:PHE:CD2	1:C:152:PHE:C	2.81	0.52
1:C:175:ILE:CD1	1:C:195:GLY:N	2.73	0.52
1:C:230:ARG:CZ	1:C:234:MET:HE3	2.39	0.52
1:C:284:GLY:HA2	1:C:332:PRO:HB3	1.88	0.52
1:C:352:ARG:HA	1:C:355:ARG:HB2	1.91	0.52
1:D:280:ILE:HD11	1:D:322:PHE:CE2	2.43	0.52
1:E:164:GLN:O	1:E:167:ASP:HB2	2.10	0.52
1:F:224:ILE:HD13	1:F:224:ILE:C	2.28	0.52
1:F:280:ILE:HB	1:F:291:PHE:HE2	1.74	0.52
1:F:282:VAL:O	1:F:285:GLU:HG3	2.09	0.52
1:G:130:ILE:CD1	1:G:151:MET:CE	2.87	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:233:LEU:O	1:A:234:MET:C	2.48	0.52
1:A:365:LYS:O	1:A:368:ILE:N	2.32	0.52
1:B:225:ASP:OD1	1:B:225:ASP:N	2.32	0.52
1:B:247:PHE:HE1	1:B:294:LEU:CA	2.12	0.52
1:B:253:ILE:HG13	1:B:254:LEU:CG	2.40	0.52
1:B:328:LEU:HD22	1:B:365:LYS:HE3	1.90	0.52
1:C:301:LEU:HD12	1:C:336:THR:O	2.10	0.52
1:E:253:ILE:CG2	1:E:321:TYR:HE2	2.21	0.52
1:F:262:ARG:HA	1:F:265:VAL:HG21	1.91	0.52
1:G:182:VAL:CG2	1:G:190:THR:O	2.41	0.52
1:G:280:ILE:HD11	1:G:322:PHE:CE2	2.39	0.52
1:H:300:VAL:HG23	1:H:314:GLY:O	2.09	0.52
1:A:154:VAL:CG1	1:A:221:LEU:HB2	2.28	0.52
1:B:316:LEU:HD12	1:B:320:ASP:OD2	2.10	0.52
1:C:229:TYR:HE1	1:C:233:LEU:HD13	1.70	0.52
1:D:246:GLU:O	1:D:248:LEU:N	2.42	0.52
1:D:280:ILE:HD11	1:D:322:PHE:HE2	1.74	0.52
1:E:162:VAL:HG23	1:E:163:ILE:H	1.75	0.52
1:E:239:ARG:HD3	1:G:157:ILE:HG12	1.91	0.52
1:F:348:LEU:HD21	1:F:356:VAL:CG2	2.33	0.52
1:G:211:ASP:OD2	2:G:401:CMP:C5'	2.53	0.52
1:G:318:PRO:O	1:G:319:SER:HB3	2.10	0.52
1:G:357:LEU:HD12	1:G:357:LEU:N	2.16	0.52
1:H:125:ALA:O	1:H:128:LYS:HB3	2.09	0.52
1:H:253:ILE:C	1:H:255:GLU:H	2.13	0.52
1:B:129:ALA:HA	1:B:132:LYS:HE3	1.92	0.52
1:B:183:TYR:CD1	1:B:188:TRP:CB	2.92	0.52
1:B:198:PHE:CD1	1:B:198:PHE:N	2.71	0.52
1:C:183:TYR:HE1	1:C:188:TRP:HB2	1.72	0.52
1:C:230:ARG:NH1	1:C:234:MET:HE3	2.25	0.52
1:C:279:LYS:HE3	1:C:282:VAL:HG22	1.91	0.52
1:D:156:PHE:HE2	1:D:162:VAL:HG12	1.61	0.52
1:D:182:VAL:CG2	1:D:190:THR:H	2.22	0.52
1:D:186:ASN:OD1	1:D:186:ASN:N	2.41	0.52
1:F:161:THR:CA	1:F:214:LYS:HD2	2.30	0.52
1:G:327:LEU:HD23	1:G:353:PHE:CZ	2.45	0.52
1:H:272:VAL:N	1:H:345:CYS:O	2.42	0.52
1:H:298:ALA:N	1:H:316:LEU:O	2.42	0.52
1:A:204:ILE:HD13	1:A:238:LEU:HD11	1.91	0.52
1:A:247:PHE:CE1	1:A:294:LEU:HB3	2.45	0.52
1:A:291:PHE:CD1	1:A:347:LYS:NZ	2.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:131:GLU:H	1:D:131:GLU:CD	2.13	0.52
1:E:241:ARG:O	1:E:242:LYS:C	2.47	0.52
1:E:270:GLU:OE1	1:E:270:GLU:N	2.42	0.52
1:F:112:VAL:CG1	1:F:113:ARG:H	2.00	0.52
1:F:164:GLN:O	1:F:167:ASP:HB2	2.10	0.52
1:G:285:GLU:OE1	1:G:285:GLU:CA	2.53	0.52
1:H:175:ILE:CD1	1:H:195:GLY:N	2.73	0.52
1:A:205:TYR:CD2	1:A:205:TYR:N	2.76	0.52
1:B:180:MET:O	1:B:191:SER:HA	2.10	0.52
1:B:204:ILE:HG22	1:B:205:TYR:HD2	1.74	0.52
1:B:280:ILE:CD1	1:B:337:VAL:HB	2.39	0.52
1:B:322:PHE:N	1:B:322:PHE:CD1	2.76	0.52
1:C:111:TYR:C	1:C:112:VAL:HG13	2.30	0.52
1:C:119:ASP:HA	1:D:117:PRO:HA	1.92	0.52
1:C:269:LEU:HB2	1:C:346:VAL:CG2	2.28	0.52
1:C:300:VAL:HG22	1:C:312:GLU:OE2	2.10	0.52
1:D:182:VAL:HG12	1:D:213:VAL:CG2	2.27	0.52
1:D:324:GLU:HB2	1:D:364:LEU:HD13	1.92	0.52
1:E:176:ASP:O	1:E:194:GLU:HG2	2.09	0.52
1:E:252:SER:O	1:E:255:GLU:HB2	2.10	0.52
1:E:260:TRP:CD2	2:E:401:CMP:N7	2.77	0.52
1:F:248:LEU:HD11	1:F:265:VAL:HG11	1.92	0.52
1:G:205:TYR:CD2	1:G:205:TYR:N	2.78	0.52
1:H:266:ALA:HA	1:H:269:LEU:CD1	2.37	0.52
1:A:113:ARG:CZ	1:D:114:LYS:C	2.78	0.52
1:A:182:VAL:CG2	1:A:190:THR:H	2.23	0.52
1:A:327:LEU:HD23	1:A:353:PHE:CD1	2.45	0.52
1:B:173:TYR:HD1	1:B:223:GLY:CA	2.23	0.52
1:C:158:ALA:HA	1:C:217:THR:O	2.09	0.52
1:C:161:THR:CA	1:C:214:LYS:HD2	2.32	0.52
1:C:198:PHE:HD1	1:C:198:PHE:N	2.07	0.52
1:C:204:ILE:HG21	1:C:205:TYR:HE2	1.75	0.52
1:D:126:LEU:C	1:D:126:LEU:CD1	2.68	0.52
1:D:366:ARG:O	1:D:369:GLN:HB2	2.09	0.52
1:E:121:LYS:O	1:E:125:ALA:N	2.36	0.52
1:E:153:PRO:CA	1:E:222:TRP:CZ3	2.93	0.52
1:F:130:ILE:HG21	1:F:148:PHE:CE2	2.43	0.52
1:F:131:GLU:C	1:F:133:ASN:N	2.60	0.52
1:F:253:ILE:HD13	1:F:321:TYR:CD2	2.45	0.52
1:F:272:VAL:CA	1:F:273:GLN:NE2	2.73	0.52
1:F:273:GLN:CB	1:F:344:LYS:HA	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:283:GLN:HG3	1:F:335:ALA:N	2.25	0.52
1:G:274:PHE:HD2	1:G:343:LEU:HD23	1.75	0.52
1:H:130:ILE:CD1	1:H:151:MET:CE	2.88	0.52
1:H:130:ILE:HD12	1:H:136:PHE:CE2	2.45	0.52
1:H:135:LEU:HD13	1:H:136:PHE:CD1	2.45	0.52
1:A:130:ILE:HD13	1:A:151:MET:HE3	1.92	0.52
1:A:175:ILE:HG21	1:A:180:MET:HG3	1.92	0.52
1:B:176:ASP:O	1:B:194:GLU:HG2	2.10	0.52
1:B:200:GLU:CG	1:B:201:LEU:HD12	2.36	0.52
1:C:113:ARG:HG2	1:F:112:VAL:HG11	1.88	0.52
1:C:262:ARG:O	1:C:265:VAL:HB	2.11	0.52
1:D:325:ILE:CD1	1:D:334:ALA:HB3	2.39	0.52
1:E:293:ILE:HG22	1:E:320:ASP:O	2.10	0.52
1:F:325:ILE:HD11	1:F:334:ALA:H	1.75	0.52
1:F:325:ILE:CD1	1:F:334:ALA:CB	2.88	0.52
1:H:157:ILE:HD12	1:H:157:ILE:C	2.26	0.52
1:H:175:ILE:HD11	1:H:195:GLY:N	2.25	0.52
1:H:272:VAL:HG22	1:H:273:GLN:H	1.75	0.52
1:H:285:GLU:HB3	1:H:286:PRO:CD	2.39	0.52
1:A:121:LYS:O	1:A:124:ALA:N	2.44	0.51
1:B:139:LEU:HD21	1:B:147:ILE:CD1	2.40	0.51
1:B:151:MET:HA	1:B:224:ILE:HG22	1.91	0.51
1:B:211:ASP:OD2	2:B:401:CMP:O4'	2.27	0.51
1:B:366:ARG:CG	1:B:367:ASN:N	2.72	0.51
1:C:110:SER:CA	1:F:114:LYS:HZ3	2.24	0.51
1:C:116:ILE:HB	1:C:118:LYS:NZ	2.26	0.51
1:D:112:VAL:HB	1:D:113:ARG:HG3	1.92	0.51
1:D:135:LEU:HD13	1:D:136:PHE:CD1	2.45	0.51
1:D:325:ILE:O	1:D:328:LEU:N	2.43	0.51
1:E:129:ALA:CB	1:E:222:TRP:HE1	2.23	0.51
1:G:253:ILE:HG13	1:G:254:LEU:N	2.25	0.51
1:H:261:GLU:O	1:H:265:VAL:HG23	2.09	0.51
1:H:324:GLU:HB2	1:H:364:LEU:CD1	2.40	0.51
1:A:174:VAL:HA	1:A:196:GLY:O	2.11	0.51
1:B:136:PHE:HE1	1:B:233:LEU:CD2	2.23	0.51
1:B:362:ASP:N	1:B:365:LYS:HZ2	2.07	0.51
1:C:152:PHE:HD2	1:C:152:PHE:H	1.59	0.51
1:C:157:ILE:O	1:C:158:ALA:O	2.28	0.51
1:C:165:GLN:HG2	1:C:166:GLY:N	2.24	0.51
1:C:265:VAL:CG1	1:C:269:LEU:CD2	2.83	0.51
1:C:311:VAL:HG23	1:C:312:GLU:H	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:113:ARG:HH22	1:D:142:ASN:HD21	1.58	0.51
1:D:266:ALA:O	1:D:267:ASP:C	2.48	0.51
1:D:293:ILE:CG2	1:D:318:PRO:HA	2.40	0.51
1:E:120:TYR:HD2	1:E:121:LYS:HA	1.75	0.51
1:E:161:THR:HA	1:E:214:LYS:CD	2.35	0.51
1:F:173:TYR:CD2	1:F:198:PHE:CZ	2.98	0.51
1:F:327:LEU:HD23	1:F:353:PHE:CE2	2.44	0.51
1:G:154:VAL:O	1:G:221:LEU:N	2.30	0.51
1:G:203:LEU:HD22	1:G:226:ARG:CB	2.39	0.51
1:G:247:PHE:CE1	1:G:294:LEU:CA	2.88	0.51
1:G:371:TYR:CE1	2:G:402:CMP:C8	2.93	0.51
1:A:152:PHE:CD2	1:A:152:PHE:C	2.78	0.51
1:A:200:GLU:HG2	1:A:201:LEU:N	2.24	0.51
1:A:366:ARG:CG	1:A:367:ASN:N	2.72	0.51
1:B:164:GLN:HA	1:B:212:THR:CG2	2.40	0.51
1:C:162:VAL:CG2	1:C:213:VAL:O	2.58	0.51
1:D:247:PHE:HE1	1:D:294:LEU:CB	2.23	0.51
1:E:262:ARG:HA	1:E:265:VAL:HG21	1.93	0.51
1:F:174:VAL:CG1	1:F:222:TRP:HB2	2.41	0.51
1:F:241:ARG:O	1:F:242:LYS:C	2.45	0.51
1:F:310:PHE:O	1:F:311:VAL:CG1	2.58	0.51
1:G:201:LEU:O	1:G:204:ILE:N	2.44	0.51
1:A:135:LEU:CD1	1:A:136:PHE:CG	2.94	0.51
1:A:269:LEU:CB	1:A:346:VAL:CG2	2.80	0.51
1:B:239:ARG:O	1:B:240:LYS:C	2.46	0.51
1:C:114:LYS:HD2	1:C:225:ASP:OD1	2.11	0.51
1:C:135:LEU:HD13	1:C:136:PHE:CG	2.45	0.51
1:C:243:MET:HE2	1:E:159:GLY:C	2.31	0.51
1:C:348:LEU:HD21	1:C:356:VAL:CG2	2.39	0.51
1:E:111:TYR:CD2	1:E:112:VAL:N	2.65	0.51
1:E:275:GLU:O	1:E:278:GLN:HB3	2.10	0.51
1:F:198:PHE:HD1	1:F:198:PHE:O	1.93	0.51
1:G:174:VAL:HG13	1:G:222:TRP:HB2	1.92	0.51
1:G:253:ILE:CD1	1:G:321:TYR:CD2	2.92	0.51
1:H:294:LEU:O	1:H:295:GLU:CG	2.59	0.51
1:A:135:LEU:HD12	1:A:135:LEU:N	2.24	0.51
1:A:290:PHE:HB2	1:A:327:LEU:HD21	1.92	0.51
1:A:296:GLY:O	1:A:318:PRO:HD3	2.09	0.51
1:A:371:TYR:CD1	2:A:402:CMP:C5	2.98	0.51
1:C:110:SER:C	1:F:114:LYS:HD3	2.30	0.51
1:C:120:TYR:CE1	1:D:148:PHE:CG	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:130:ILE:HG13	1:C:136:PHE:CG	2.45	0.51
1:C:224:ILE:HD13	1:C:224:ILE:C	2.31	0.51
1:C:279:LYS:CB	1:C:337:VAL:O	2.59	0.51
1:E:109:ALA:HB1	1:H:114:LYS:HE2	1.92	0.51
1:E:140:ASP:N	1:E:143:GLU:OE1	2.42	0.51
1:E:196:GLY:HA2	1:E:355:ARG:CZ	2.35	0.51
1:F:226:ARG:HA	1:F:229:TYR:HB3	1.92	0.51
1:F:266:ALA:O	1:F:268:ALA:N	2.44	0.51
1:G:293:ILE:CG2	1:G:318:PRO:HA	2.41	0.51
1:H:283:GLN:HG3	1:H:334:ALA:C	2.31	0.51
1:A:309:GLU:CG	1:A:310:PHE:H	2.23	0.51
1:A:329:MET:HA	1:A:329:MET:HE3	1.93	0.51
1:A:371:TYR:CE1	2:A:402:CMP:C5	2.98	0.51
1:C:120:TYR:CD2	1:C:120:TYR:O	2.64	0.51
1:C:247:PHE:CE1	1:C:294:LEU:CB	2.93	0.51
1:C:335:ALA:HB3	2:C:402:CMP:H5'1	1.93	0.51
1:D:158:ALA:HB2	1:D:217:THR:C	2.31	0.51
1:E:130:ILE:HD13	1:E:151:MET:CE	2.41	0.51
1:E:211:ASP:OD1	1:E:211:ASP:N	2.43	0.51
1:G:230:ARG:CG	1:G:234:MET:HE1	2.40	0.51
1:G:342:PRO:O	1:G:342:PRO:HG2	2.10	0.51
1:H:311:VAL:HG23	1:H:312:GLU:H	1.76	0.51
1:A:285:GLU:OE1	1:A:285:GLU:CA	2.59	0.51
1:B:325:ILE:HG12	2:B:402:CMP:O3'	2.11	0.51
1:D:134:VAL:O	1:D:137:SER:HB3	2.11	0.51
1:D:173:TYR:CB	1:D:198:PHE:HE1	2.24	0.51
1:D:324:GLU:HG2	1:D:325:ILE:HG23	1.93	0.51
1:E:152:PHE:HD2	1:E:152:PHE:N	2.02	0.51
1:F:144:ARG:O	1:F:147:ILE:HG12	2.11	0.51
1:F:253:ILE:HD13	1:F:321:TYR:CE2	2.46	0.51
1:F:350:ARG:O	1:F:353:PHE:CB	2.53	0.51
1:G:177:GLN:HA	1:G:194:GLU:CG	2.40	0.51
1:G:249:SER:HA	1:G:262:ARG:HH22	1.73	0.51
1:G:265:VAL:C	1:G:269:LEU:HG	2.26	0.51
1:A:246:GLU:O	1:A:248:LEU:N	2.43	0.51
1:A:261:GLU:O	1:A:262:ARG:C	2.49	0.51
1:B:226:ARG:O	1:B:227:ASP:C	2.50	0.51
1:B:260:TRP:NE1	2:B:401:CMP:C4	2.78	0.51
1:C:158:ALA:HA	1:C:215:ALA:HB1	1.92	0.51
1:C:235:GLY:O	1:C:238:LEU:N	2.43	0.51
1:C:365:LYS:HA	1:C:368:ILE:HG13	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:165:GLN:CA	1:D:211:ASP:O	2.56	0.51
1:D:261:GLU:O	1:D:264:THR:N	2.44	0.51
1:D:302:GLN:HG3	1:D:313:VAL:CG1	2.40	0.51
1:E:113:ARG:NH1	1:H:112:VAL:HG23	2.25	0.51
1:E:316:LEU:HA	1:E:320:ASP:OD2	2.10	0.51
1:F:182:VAL:CG2	1:F:190:THR:H	2.23	0.51
1:F:274:PHE:HB2	1:F:343:LEU:HB3	1.93	0.51
1:G:224:ILE:CD1	1:G:224:ILE:H	2.23	0.51
1:G:293:ILE:HA	1:G:345:CYS:SG	2.51	0.51
1:H:173:TYR:HB3	1:H:222:TRP:O	2.11	0.51
1:H:255:GLU:OE1	1:H:255:GLU:CA	2.51	0.51
1:A:177:GLN:HA	1:A:194:GLU:CG	2.40	0.51
1:A:183:TYR:HD1	1:A:188:TRP:HB2	1.76	0.51
1:B:253:ILE:C	1:B:255:GLU:N	2.64	0.51
1:C:152:PHE:CD2	1:C:152:PHE:N	2.79	0.51
1:C:190:THR:HG22	1:C:191:SER:N	2.11	0.51
1:D:209:ARG:HD2	2:D:401:CMP:O5'	2.10	0.51
1:E:269:LEU:HB2	1:E:346:VAL:CG2	2.39	0.51
1:E:269:LEU:HB2	1:E:346:VAL:HG21	1.92	0.51
1:E:293:ILE:HG23	1:E:318:PRO:HA	1.91	0.51
1:F:113:ARG:HB3	1:F:146:ASP:OD2	2.11	0.51
1:F:162:VAL:HG23	1:F:163:ILE:H	1.73	0.51
1:G:300:VAL:HG23	1:G:316:LEU:HD11	1.91	0.51
1:H:118:LYS:HE2	1:H:148:PHE:O	2.10	0.51
1:H:186:ASN:N	1:H:186:ASN:OD1	2.43	0.51
1:H:285:GLU:HB2	1:H:333:ARG:HG3	1.92	0.51
1:A:204:ILE:CG2	1:A:205:TYR:CD2	2.92	0.51
1:B:110:SER:O	1:B:111:TYR:HB2	2.10	0.51
1:B:174:VAL:HA	1:B:196:GLY:O	2.10	0.51
1:C:158:ALA:CB	1:C:216:LYS:O	2.55	0.51
1:C:272:VAL:N	1:C:345:CYS:O	2.44	0.51
1:D:157:ILE:HG23	1:F:239:ARG:NH1	2.26	0.51
1:E:269:LEU:HD23	1:E:348:LEU:HD13	1.92	0.51
1:F:296:GLY:CA	1:F:342:PRO:O	2.58	0.51
1:F:331:ARG:HB3	1:F:332:PRO:HD2	1.91	0.51
1:G:116:ILE:HG13	1:G:152:PHE:HB3	1.93	0.51
1:G:135:LEU:HD12	1:G:135:LEU:N	2.26	0.51
1:G:248:LEU:CB	1:G:262:ARG:HH21	2.24	0.51
1:H:251:VAL:CG2	1:H:319:SER:O	2.58	0.51
1:H:280:ILE:HB	1:H:291:PHE:CE2	2.40	0.51
1:H:300:VAL:HG23	1:H:314:GLY:N	2.19	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:111:TYR:C	1:D:115:VAL:HG21	2.27	0.50
1:A:296:GLY:HA3	1:A:343:LEU:HA	1.93	0.50
1:A:366:ARG:HG2	1:A:367:ASN:H	1.75	0.50
1:B:126:LEU:C	1:B:126:LEU:CD1	2.79	0.50
1:B:249:SER:HA	1:B:262:ARG:NH2	2.26	0.50
1:C:265:VAL:HG12	1:C:269:LEU:CD2	2.41	0.50
1:F:116:ILE:N	1:F:149:ASP:O	2.36	0.50
1:H:143:GLU:HB3	1:H:232:ILE:HD11	1.92	0.50
1:H:203:LEU:HD12	1:H:229:TYR:HD2	1.71	0.50
1:H:362:ASP:N	1:H:362:ASP:OD1	2.44	0.50
1:A:161:THR:HG23	1:A:214:LYS:HD3	1.93	0.50
1:A:247:PHE:CE1	1:A:294:LEU:CA	2.85	0.50
1:B:115:VAL:O	1:B:115:VAL:HG23	2.11	0.50
1:B:162:VAL:HG23	1:B:163:ILE:N	2.25	0.50
1:C:157:ILE:O	1:C:160:GLU:HB2	2.11	0.50
1:C:180:MET:O	1:C:191:SER:HA	2.11	0.50
1:C:260:TRP:CD1	2:C:401:CMP:C4	2.99	0.50
1:D:139:LEU:HD21	1:D:147:ILE:CD1	2.41	0.50
1:D:230:ARG:HG2	1:D:230:ARG:HH11	1.75	0.50
1:F:153:PRO:HA	1:F:222:TRP:CE3	2.46	0.50
1:F:300:VAL:HG13	1:F:335:ALA:HB1	1.84	0.50
1:G:268:ALA:O	1:G:352:ARG:NH1	2.44	0.50
1:H:357:LEU:N	1:H:357:LEU:HD12	2.19	0.50
1:H:366:ARG:O	1:H:369:GLN:HB2	2.11	0.50
1:A:130:ILE:CG2	1:A:131:GLU:N	2.74	0.50
1:B:171:ASN:HB3	1:B:224:ILE:O	2.10	0.50
1:C:147:ILE:O	1:C:148:PHE:C	2.48	0.50
1:C:165:GLN:N	1:C:212:THR:CG2	2.50	0.50
1:C:254:LEU:C	1:C:254:LEU:HD12	2.31	0.50
1:D:300:VAL:HG12	1:D:314:GLY:C	2.30	0.50
1:E:131:GLU:N	1:E:131:GLU:CD	2.65	0.50
1:E:158:ALA:HA	1:E:215:ALA:HB1	1.94	0.50
1:E:179:GLU:CG	1:E:216:LYS:HD2	2.42	0.50
1:E:230:ARG:HG2	1:E:230:ARG:HH11	1.76	0.50
1:F:111:TYR:CD2	1:F:111:TYR:C	2.81	0.50
1:F:152:PHE:CE2	1:F:223:GLY:CA	2.91	0.50
1:F:293:ILE:HG21	1:F:317:GLY:O	2.11	0.50
1:G:175:ILE:HG22	1:G:221:LEU:HD21	1.94	0.50
1:G:371:TYR:CD1	2:G:402:CMP:C6	2.99	0.50
1:H:158:ALA:HB2	1:H:218:ASN:N	2.24	0.50
1:H:185:ASN:N	1:H:185:ASN:OD1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:294:LEU:CD1	1:H:294:LEU:C	2.69	0.50
1:A:293:ILE:HG23	1:A:318:PRO:HA	1.93	0.50
1:B:152:PHE:CE2	1:B:223:GLY:C	2.84	0.50
1:B:297:SER:O	1:B:340:ARG:HB2	2.11	0.50
1:B:362:ASP:HA	1:B:365:LYS:NZ	2.26	0.50
1:D:157:ILE:HD13	1:F:243:MET:CE	2.41	0.50
1:D:239:ARG:O	1:D:240:LYS:C	2.49	0.50
1:D:253:ILE:HG13	1:D:254:LEU:CD1	2.24	0.50
1:E:144:ARG:HG2	1:E:145:SER:N	2.26	0.50
1:E:204:ILE:CG2	1:E:205:TYR:HD2	2.21	0.50
1:E:324:GLU:HB2	1:E:364:LEU:CD1	2.40	0.50
1:F:157:ILE:HD11	1:H:243:MET:HE3	1.90	0.50
1:F:269:LEU:HD22	1:F:346:VAL:CG2	2.41	0.50
1:H:253:ILE:HD13	1:H:321:TYR:CE2	2.46	0.50
1:H:259:LYS:CG	1:H:260:TRP:N	2.62	0.50
1:H:260:TRP:CD1	2:H:401:CMP:C4	2.99	0.50
1:A:164:GLN:O	1:A:167:ASP:HB2	2.12	0.50
1:A:239:ARG:NH2	1:C:156:PHE:HE1	2.09	0.50
1:B:182:VAL:CG2	1:B:190:THR:O	2.45	0.50
1:B:281:VAL:CG1	1:B:333:ARG:CG	2.90	0.50
1:C:291:PHE:HB2	1:C:322:PHE:CE1	2.47	0.50
1:C:297:SER:O	1:C:340:ARG:HB2	2.11	0.50
1:D:165:GLN:HG2	1:D:166:GLY:N	2.26	0.50
1:D:173:TYR:CD2	1:D:198:PHE:CE1	2.95	0.50
1:F:230:ARG:HB3	1:F:234:MET:CE	2.41	0.50
1:F:248:LEU:HD11	1:F:265:VAL:CG1	2.41	0.50
1:F:260:TRP:CG	2:F:401:CMP:C5	3.00	0.50
1:F:327:LEU:HD23	1:F:353:PHE:CE1	2.46	0.50
1:G:173:TYR:CD2	1:G:198:PHE:HE1	2.28	0.50
1:H:271:PRO:O	1:H:272:VAL:HB	2.12	0.50
1:B:255:GLU:OE1	1:B:255:GLU:CA	2.45	0.50
1:B:350:ARG:CB	1:B:351:PRO:HD3	2.25	0.50
1:C:153:PRO:CB	1:C:222:TRP:CZ3	2.94	0.50
1:C:173:TYR:CD2	1:C:198:PHE:HE1	2.27	0.50
1:D:157:ILE:HG23	1:F:239:ARG:HH11	1.76	0.50
1:D:269:LEU:CD2	1:D:346:VAL:HG21	2.37	0.50
1:D:280:ILE:CD1	1:D:322:PHE:CZ	2.94	0.50
1:D:285:GLU:OE1	1:D:285:GLU:CA	2.56	0.50
1:D:298:ALA:O	1:D:316:LEU:HD13	2.12	0.50
1:D:300:VAL:HA	1:D:336:THR:O	2.11	0.50
1:E:152:PHE:CD2	1:E:152:PHE:C	2.81	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:269:LEU:HD22	1:F:346:VAL:HG21	1.94	0.50
1:G:356:VAL:CG2	1:G:357:LEU:HD13	2.38	0.50
1:H:324:GLU:O	1:H:328:LEU:CD1	2.58	0.50
1:A:224:ILE:HD13	1:A:224:ILE:C	2.30	0.50
1:A:279:LYS:O	1:A:279:LYS:HG2	2.11	0.50
1:B:112:VAL:HG12	1:B:231:ARG:HE	1.72	0.50
1:D:182:VAL:CG2	1:D:190:THR:O	2.41	0.50
1:D:259:LYS:C	1:D:262:ARG:HG2	2.25	0.50
1:D:309:GLU:O	1:D:311:VAL:HG12	2.12	0.50
1:D:362:ASP:N	1:D:365:LYS:HZ2	2.08	0.50
1:E:205:TYR:CD2	1:E:205:TYR:N	2.79	0.50
1:G:165:GLN:CA	1:G:211:ASP:O	2.57	0.50
1:G:247:PHE:CD2	1:G:247:PHE:O	2.64	0.50
1:G:283:GLN:OE1	1:G:302:GLN:HA	2.12	0.50
1:H:130:ILE:HD12	1:H:136:PHE:CD2	2.46	0.50
1:H:174:VAL:HG13	1:H:222:TRP:HB2	1.93	0.50
1:A:161:THR:CA	1:A:214:LYS:HD2	2.30	0.50
1:B:201:LEU:HD13	2:B:401:CMP:H2'	1.92	0.50
1:B:300:VAL:HG13	1:B:335:ALA:HB1	1.92	0.50
1:B:366:ARG:HG2	1:B:367:ASN:H	1.75	0.50
1:C:121:LYS:HG3	1:C:122:THR:N	2.26	0.50
1:C:211:ASP:OD1	2:C:401:CMP:H5'1	2.12	0.50
1:D:174:VAL:HA	1:D:196:GLY:O	2.12	0.50
1:D:357:LEU:HD12	1:D:357:LEU:N	2.26	0.50
1:D:365:LYS:O	1:D:368:ILE:CG1	2.43	0.50
1:E:147:ILE:O	1:E:148:PHE:C	2.50	0.50
1:E:290:PHE:HB2	1:E:327:LEU:HD21	1.94	0.50
1:E:356:VAL:CG2	1:E:357:LEU:HD13	2.37	0.50
1:F:204:ILE:CG2	1:F:205:TYR:CD2	2.93	0.50
1:F:247:PHE:HE1	1:F:294:LEU:CA	2.16	0.50
1:G:163:ILE:HD12	1:G:213:VAL:HB	1.94	0.50
1:G:272:VAL:HG22	1:G:273:GLN:H	1.77	0.50
1:G:273:GLN:HE21	1:G:273:GLN:H	0.53	0.50
1:G:362:ASP:N	1:G:365:LYS:HZ2	2.09	0.50
1:G:366:ARG:HG2	1:G:367:ASN:N	2.26	0.50
1:A:262:ARG:HA	1:A:265:VAL:HG21	1.93	0.50
1:B:152:PHE:CD2	1:B:152:PHE:N	2.77	0.50
1:B:290:PHE:HB2	1:B:327:LEU:CD2	2.42	0.50
1:B:331:ARG:NH2	1:B:376:SER:CB	2.73	0.50
1:C:114:LYS:HD2	1:C:225:ASP:CG	2.32	0.50
1:C:161:THR:HG23	1:C:214:LYS:HD3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:253:ILE:O	1:C:255:GLU:N	2.45	0.50
1:D:266:ALA:HA	1:D:269:LEU:CD1	2.41	0.50
1:E:110:SER:OG	1:H:115:VAL:HG23	2.12	0.50
1:F:230:ARG:HB3	1:F:234:MET:HE1	1.92	0.50
1:F:273:GLN:HB3	1:F:344:LYS:HA	1.94	0.50
1:G:224:ILE:HD13	1:G:224:ILE:C	2.30	0.50
1:A:163:ILE:HD11	1:A:198:PHE:CZ	2.47	0.49
1:A:247:PHE:CE1	1:A:294:LEU:CB	2.95	0.49
1:A:335:ALA:HB3	2:A:402:CMP:O4'	2.12	0.49
1:B:144:ARG:CG	1:B:145:SER:N	2.75	0.49
1:B:230:ARG:CG	1:B:234:MET:HE1	2.37	0.49
1:B:253:ILE:HD13	1:B:321:TYR:CE2	2.46	0.49
1:D:264:THR:O	1:D:265:VAL:C	2.49	0.49
1:D:278:GLN:HG3	1:D:279:LYS:N	2.23	0.49
1:E:127:ALA:O	1:E:130:ILE:HG22	2.11	0.49
1:E:139:LEU:HD22	1:E:144:ARG:HA	1.93	0.49
1:E:175:ILE:CD1	1:E:193:GLY:O	2.60	0.49
1:G:371:TYR:CD1	2:G:402:CMP:C5	3.00	0.49
1:H:115:VAL:HA	1:H:149:ASP:CB	2.36	0.49
1:A:154:VAL:O	1:A:154:VAL:CG1	2.57	0.49
1:A:239:ARG:O	1:A:240:LYS:C	2.48	0.49
1:A:348:LEU:HD21	1:A:356:VAL:CG2	2.42	0.49
1:B:157:ILE:O	1:B:160:GLU:HB2	2.11	0.49
1:C:186:ASN:N	1:C:186:ASN:OD1	2.43	0.49
1:C:261:GLU:O	1:C:265:VAL:HG23	2.12	0.49
1:D:161:THR:HG23	1:D:214:LYS:HD3	1.94	0.49
1:D:175:ILE:HD12	1:D:195:GLY:H	1.78	0.49
1:D:226:ARG:O	1:D:227:ASP:C	2.51	0.49
1:D:279:LYS:O	1:D:279:LYS:CG	2.60	0.49
1:D:300:VAL:O	1:D:313:VAL:HG13	2.11	0.49
1:E:163:ILE:CD1	1:E:213:VAL:HB	2.42	0.49
1:E:260:TRP:O	1:E:263:LEU:HB2	2.12	0.49
1:G:294:LEU:N	1:G:294:LEU:CD1	2.45	0.49
1:G:327:LEU:HD23	1:G:353:PHE:CD2	2.46	0.49
1:H:253:ILE:HG13	1:H:254:LEU:CG	2.41	0.49
1:H:324:GLU:OE1	1:H:324:GLU:N	2.45	0.49
1:A:274:PHE:CE2	1:A:280:ILE:HG22	2.48	0.49
1:A:318:PRO:O	1:A:319:SER:HB3	2.11	0.49
1:B:139:LEU:HB3	1:B:143:GLU:HB2	1.95	0.49
1:B:140:ASP:OD1	1:B:140:ASP:O	2.31	0.49
1:B:144:ARG:HG2	1:B:145:SER:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:129:ALA:HB2	1:C:222:TRP:HE1	1.76	0.49
1:C:144:ARG:O	1:C:145:SER:C	2.49	0.49
1:C:269:LEU:HD23	1:C:348:LEU:HD11	1.92	0.49
1:C:289:GLU:N	1:C:327:LEU:HD11	2.26	0.49
1:C:294:LEU:HD13	1:C:344:LYS:C	2.28	0.49
1:C:333:ARG:NH1	2:C:402:CMP:O1P	2.43	0.49
1:D:144:ARG:O	1:D:147:ILE:N	2.44	0.49
1:D:177:GLN:HA	1:D:194:GLU:CG	2.43	0.49
1:D:251:VAL:O	1:D:254:LEU:CD2	2.58	0.49
1:E:229:TYR:O	1:E:233:LEU:HD12	2.12	0.49
1:F:162:VAL:CG2	1:F:163:ILE:N	2.75	0.49
1:F:165:GLN:HG2	1:F:166:GLY:N	2.26	0.49
1:G:120:TYR:CE1	1:H:148:PHE:CD1	3.00	0.49
1:G:179:GLU:CG	1:G:216:LYS:HD2	2.42	0.49
1:H:116:ILE:N	1:H:149:ASP:O	2.26	0.49
1:H:129:ALA:HB2	1:H:222:TRP:HE1	1.77	0.49
1:H:131:GLU:H	1:H:131:GLU:CD	2.15	0.49
1:H:144:ARG:O	1:H:147:ILE:N	2.45	0.49
1:H:160:GLU:O	1:H:214:LYS:HA	2.12	0.49
1:H:246:GLU:C	1:H:248:LEU:N	2.59	0.49
1:A:135:LEU:CD1	1:A:135:LEU:C	2.78	0.49
1:A:226:ARG:O	1:A:227:ASP:C	2.50	0.49
1:B:135:LEU:HD13	1:B:136:PHE:N	2.28	0.49
1:C:129:ALA:CB	1:C:222:TRP:HE1	2.25	0.49
1:D:356:VAL:HG23	1:D:357:LEU:HD13	1.88	0.49
1:G:175:ILE:HG21	1:G:180:MET:HG3	1.95	0.49
1:G:248:LEU:HB2	1:G:262:ARG:HH21	1.78	0.49
1:H:153:PRO:HA	1:H:222:TRP:CE3	2.46	0.49
1:H:260:TRP:CG	2:H:401:CMP:C8	2.96	0.49
1:A:175:ILE:HD11	1:A:194:GLU:C	2.32	0.49
1:B:120:TYR:HE2	1:B:124:ALA:CB	2.26	0.49
1:B:198:PHE:HD1	1:B:198:PHE:N	2.09	0.49
1:B:200:GLU:OE2	1:B:241:ARG:NH2	2.45	0.49
1:D:210:ALA:N	1:D:211:ASP:OD1	2.46	0.49
1:E:112:VAL:HG12	1:E:231:ARG:HE	1.71	0.49
1:E:113:ARG:H	1:H:112:VAL:HG11	1.77	0.49
1:E:263:LEU:O	1:E:266:ALA:CB	2.57	0.49
1:E:283:GLN:HG3	1:E:335:ALA:N	2.28	0.49
1:F:252:SER:OG	1:F:253:ILE:N	2.42	0.49
1:F:300:VAL:CG1	1:F:335:ALA:CB	2.83	0.49
1:F:366:ARG:O	1:F:369:GLN:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:135:LEU:HD13	1:G:136:PHE:CG	2.47	0.49
1:H:260:TRP:CG	2:H:401:CMP:C5	3.01	0.49
1:A:363:ILE:O	1:A:366:ARG:HG2	2.13	0.49
1:B:224:ILE:HD13	1:B:224:ILE:N	2.25	0.49
1:C:131:GLU:C	1:C:133:ASN:H	2.14	0.49
1:C:177:GLN:HA	1:C:194:GLU:CG	2.42	0.49
1:C:284:GLY:HA2	1:C:332:PRO:CB	2.43	0.49
1:D:116:ILE:CG2	1:D:118:LYS:NZ	2.75	0.49
1:D:280:ILE:HD13	1:D:322:PHE:HZ	1.76	0.49
1:D:297:SER:O	1:D:340:ARG:N	2.39	0.49
1:E:152:PHE:HE2	1:E:223:GLY:C	2.16	0.49
1:E:153:PRO:CB	1:E:222:TRP:CZ3	2.95	0.49
1:E:253:ILE:HG13	1:E:254:LEU:HG	1.93	0.49
1:F:272:VAL:N	1:F:345:CYS:O	2.41	0.49
1:G:120:TYR:O	1:G:121:LYS:C	2.49	0.49
1:G:158:ALA:HB1	1:G:216:LYS:O	2.13	0.49
1:H:278:GLN:O	1:H:339:ALA:N	2.32	0.49
1:H:292:ILE:HB	1:H:346:VAL:HG13	1.93	0.49
1:H:325:ILE:HG13	1:H:326:ALA:N	2.27	0.49
1:A:247:PHE:HE1	1:A:294:LEU:CB	2.25	0.49
1:B:173:TYR:HB2	1:B:198:PHE:CE1	2.47	0.49
1:C:173:TYR:CD2	1:C:198:PHE:HZ	2.29	0.49
1:C:242:LYS:HD3	1:C:242:LYS:N	1.95	0.49
1:D:183:TYR:CD1	1:D:188:TRP:HA	2.45	0.49
1:D:203:LEU:HD12	1:D:229:TYR:CD2	2.47	0.49
1:D:273:GLN:HE21	1:D:273:GLN:CA	2.25	0.49
1:E:281:VAL:HG11	1:E:333:ARG:NE	2.28	0.49
1:F:261:GLU:O	1:F:265:VAL:HG23	2.12	0.49
1:G:116:ILE:HB	1:G:149:ASP:O	2.12	0.49
1:G:121:LYS:O	1:G:122:THR:C	2.50	0.49
1:G:360:CYS:O	1:G:364:LEU:HD23	2.13	0.49
1:H:113:ARG:CD	1:H:114:LYS:N	2.71	0.49
1:H:230:ARG:CB	1:H:234:MET:HE1	2.43	0.49
1:H:261:GLU:O	1:H:262:ARG:C	2.48	0.49
1:A:139:LEU:HD21	1:A:147:ILE:CD1	2.42	0.49
1:A:249:SER:HA	1:A:262:ARG:HH22	1.75	0.49
1:B:147:ILE:O	1:B:148:PHE:C	2.47	0.49
1:B:290:PHE:HB2	1:B:327:LEU:HD21	1.95	0.49
1:C:254:LEU:HD12	1:C:255:GLU:N	2.28	0.49
1:C:265:VAL:HG12	1:C:269:LEU:CG	2.41	0.49
1:C:325:ILE:CD1	1:C:334:ALA:CB	2.90	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:269:LEU:O	1:D:270:GLU:CB	2.59	0.49
1:E:287:GLY:HA3	1:E:326:ALA:HB1	1.95	0.49
1:F:224:ILE:HD12	1:F:224:ILE:H	1.73	0.49
1:F:289:GLU:HG2	1:F:291:PHE:HE1	1.77	0.49
1:G:139:LEU:HD21	1:G:147:ILE:CD1	2.42	0.49
1:A:116:ILE:N	1:A:149:ASP:O	2.43	0.49
1:A:122:THR:O	1:A:125:ALA:HB3	2.12	0.49
1:A:352:ARG:HA	1:A:355:ARG:HB2	1.95	0.49
1:B:253:ILE:HG21	1:B:321:TYR:CE2	2.48	0.49
1:C:120:TYR:HE1	1:D:148:PHE:CG	2.29	0.49
1:C:280:ILE:HB	1:C:291:PHE:HE2	1.77	0.49
1:C:366:ARG:O	1:C:369:GLN:HB2	2.13	0.49
1:D:120:TYR:HD2	1:D:121:LYS:N	2.11	0.49
1:D:121:LYS:O	1:D:124:ALA:N	2.46	0.49
1:F:118:LYS:CE	1:F:148:PHE:O	2.51	0.49
1:F:135:LEU:HD12	1:F:136:PHE:N	2.27	0.49
1:H:129:ALA:CB	1:H:222:TRP:NE1	2.76	0.49
1:H:131:GLU:C	1:H:133:ASN:N	2.65	0.49
1:H:139:LEU:HD22	1:H:144:ARG:HA	1.94	0.49
1:H:158:ALA:N	1:H:218:ASN:OD1	2.40	0.49
1:A:174:VAL:CG1	1:A:222:TRP:HB2	2.42	0.49
1:A:297:SER:O	1:A:340:ARG:HB2	2.13	0.49
1:A:371:TYR:CD1	2:A:402:CMP:N7	2.80	0.49
1:B:111:TYR:CE2	1:B:112:VAL:O	2.66	0.49
1:B:272:VAL:HA	1:B:273:GLN:HE22	1.75	0.49
1:C:144:ARG:HG2	1:C:145:SER:H	1.74	0.49
1:C:144:ARG:O	1:C:147:ILE:N	2.46	0.49
1:C:153:PRO:CA	1:C:222:TRP:CZ3	2.96	0.49
1:C:211:ASP:OD1	2:C:401:CMP:O2P	2.30	0.49
1:C:315:ARG:HH21	1:C:340:ARG:HH22	1.61	0.49
1:D:183:TYR:HE1	1:D:188:TRP:HB2	1.76	0.49
1:D:188:TRP:HH2	1:D:191:SER:OG	1.90	0.49
1:E:201:LEU:HD13	2:E:401:CMP:C2'	2.43	0.49
1:G:211:ASP:OD2	2:G:401:CMP:N3	2.46	0.49
1:H:196:GLY:CA	1:H:355:ARG:NH2	2.65	0.49
1:H:229:TYR:HD1	1:H:233:LEU:HD11	1.73	0.49
1:A:284:GLY:O	1:A:332:PRO:HB3	2.13	0.48
1:A:296:GLY:CA	1:A:342:PRO:O	2.61	0.48
1:B:154:VAL:O	1:B:221:LEU:N	2.32	0.48
1:B:293:ILE:CG2	1:B:317:GLY:O	2.59	0.48
1:D:293:ILE:HG21	1:D:317:GLY:C	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:249:SER:CA	1:E:262:ARG:NH2	2.70	0.48
1:E:324:GLU:O	1:E:328:LEU:CD1	2.42	0.48
1:E:325:ILE:CD1	1:E:334:ALA:CB	2.92	0.48
1:F:157:ILE:O	1:H:243:MET:HE1	2.13	0.48
1:F:260:TRP:CD2	2:F:401:CMP:C8	2.96	0.48
1:F:291:PHE:CZ	1:F:347:LYS:NZ	2.79	0.48
1:G:153:PRO:HB3	1:G:222:TRP:CH2	2.46	0.48
1:G:256:SER:OG	1:G:363:ILE:HD12	2.13	0.48
1:H:177:GLN:HA	1:H:194:GLU:CG	2.43	0.48
1:H:235:GLY:O	1:H:238:LEU:N	2.46	0.48
1:H:261:GLU:O	1:H:264:THR:N	2.46	0.48
1:H:262:ARG:HA	1:H:265:VAL:CG2	2.42	0.48
1:H:269:LEU:CD2	1:H:346:VAL:HG21	2.38	0.48
1:H:304:ARG:CB	1:H:308:GLU:CB	2.90	0.48
1:A:162:VAL:HG22	1:A:213:VAL:O	2.13	0.48
1:A:324:GLU:CG	1:A:325:ILE:H	2.24	0.48
1:B:175:ILE:HD11	1:B:194:GLU:CA	2.43	0.48
1:B:200:GLU:CD	1:B:201:LEU:HD11	2.33	0.48
1:C:163:ILE:HD12	1:C:213:VAL:HG21	1.95	0.48
1:C:211:ASP:OD2	2:C:401:CMP:C3'	2.56	0.48
1:C:284:GLY:O	1:C:332:PRO:CG	2.61	0.48
1:D:247:PHE:HE1	1:D:294:LEU:HB3	1.77	0.48
1:E:126:LEU:O	1:E:130:ILE:N	2.44	0.48
1:E:139:LEU:N	1:E:139:LEU:CD1	2.66	0.48
1:F:234:MET:HG3	1:F:238:LEU:CD1	2.41	0.48
1:F:235:GLY:O	1:F:238:LEU:N	2.47	0.48
1:F:273:GLN:HE21	1:F:273:GLN:CA	2.22	0.48
1:F:352:ARG:HA	1:F:355:ARG:HB2	1.95	0.48
1:G:258:ASP:O	1:G:262:ARG:HG2	2.13	0.48
1:H:241:ARG:O	1:H:242:LYS:C	2.50	0.48
1:A:179:GLU:HG2	1:A:216:LYS:HD3	1.93	0.48
1:C:290:PHE:HB2	1:C:327:LEU:CD2	2.43	0.48
1:D:161:THR:HG23	1:D:214:LYS:HD2	1.95	0.48
1:E:234:MET:HG3	1:E:238:LEU:HD12	1.95	0.48
1:E:281:VAL:HG11	1:E:333:ARG:CD	2.43	0.48
1:F:171:ASN:OD1	1:F:225:ASP:HA	2.14	0.48
1:F:249:SER:CB	1:F:262:ARG:HH22	2.26	0.48
1:F:293:ILE:HG21	1:F:317:GLY:C	2.34	0.48
1:F:349:ASP:O	1:F:353:PHE:HB2	2.13	0.48
1:G:116:ILE:N	1:G:149:ASP:O	2.41	0.48
1:G:135:LEU:HD13	1:G:136:PHE:CD1	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:353:PHE:CE1	1:G:357:LEU:HD23	2.48	0.48
1:H:324:GLU:OE2	1:H:371:TYR:HE2	1.96	0.48
1:A:153:PRO:CA	1:A:222:TRP:HZ3	2.23	0.48
1:B:113:ARG:HG3	1:B:113:ARG:O	2.13	0.48
1:B:260:TRP:CE2	2:B:401:CMP:H8	2.47	0.48
1:C:260:TRP:CG	2:C:401:CMP:N7	2.81	0.48
1:D:164:GLN:O	1:D:167:ASP:HB2	2.14	0.48
1:D:224:ILE:H	1:D:224:ILE:HD12	1.75	0.48
1:D:296:GLY:HA2	1:D:342:PRO:HG2	1.95	0.48
1:E:134:VAL:O	1:E:137:SER:HB3	2.12	0.48
1:E:289:GLU:HG2	1:E:291:PHE:CE1	2.48	0.48
1:F:163:ILE:O	1:F:213:VAL:N	2.43	0.48
1:F:183:TYR:HE1	1:F:188:TRP:HB2	1.78	0.48
1:F:246:GLU:O	1:F:249:SER:N	2.46	0.48
1:G:116:ILE:HG22	1:G:118:LYS:CG	2.39	0.48
1:G:120:TYR:HD2	1:G:121:LYS:N	2.11	0.48
1:G:247:PHE:CE1	1:G:294:LEU:CB	2.96	0.48
1:H:153:PRO:HB3	1:H:222:TRP:HZ3	1.76	0.48
1:H:163:ILE:O	1:H:212:THR:HG22	2.14	0.48
1:H:165:GLN:N	1:H:212:THR:CG2	2.50	0.48
1:H:183:TYR:HE1	1:H:188:TRP:HB2	1.75	0.48
1:H:260:TRP:CE2	2:H:401:CMP:H8	2.44	0.48
1:H:333:ARG:NH1	2:H:402:CMP:O2P	2.37	0.48
1:A:186:ASN:OD1	1:A:186:ASN:N	2.47	0.48
1:A:309:GLU:HG3	1:A:310:PHE:H	1.79	0.48
1:C:113:ARG:NE	1:C:146:ASP:OD1	2.41	0.48
1:C:188:TRP:CH2	1:C:190:THR:CA	2.94	0.48
1:C:254:LEU:HB2	1:C:257:LEU:HD12	1.94	0.48
1:C:294:LEU:HD13	1:C:345:CYS:HA	1.87	0.48
1:C:318:PRO:O	1:C:319:SER:HB3	2.12	0.48
1:C:325:ILE:HG12	2:C:402:CMP:O3'	2.12	0.48
1:C:361:SER:C	1:C:365:LYS:NZ	2.67	0.48
1:D:343:LEU:HA	1:D:343:LEU:HD12	1.55	0.48
1:E:324:GLU:OE1	1:E:324:GLU:N	2.46	0.48
1:E:325:ILE:HG22	1:E:368:ILE:HG21	1.94	0.48
1:E:353:PHE:CE1	1:E:357:LEU:HD23	2.48	0.48
1:F:280:ILE:HD12	1:F:281:VAL:CG2	2.43	0.48
1:H:115:VAL:O	1:H:115:VAL:CG2	2.54	0.48
1:H:147:ILE:HG13	1:H:148:PHE:N	2.28	0.48
1:H:157:ILE:O	1:H:158:ALA:O	2.31	0.48
1:H:157:ILE:HG13	1:H:160:GLU:OE1	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:171:ASN:H	1:H:209:ARG:HH22	1.60	0.48
1:H:180:MET:O	1:H:191:SER:HA	2.12	0.48
1:H:204:ILE:CG2	1:H:205:TYR:CE2	2.97	0.48
1:H:245:GLU:OE1	1:H:245:GLU:C	2.52	0.48
1:A:113:ARG:CD	1:D:113:ARG:HB3	2.43	0.48
1:B:298:ALA:HB1	1:B:338:VAL:O	2.14	0.48
1:C:129:ALA:CB	1:C:222:TRP:NE1	2.77	0.48
1:C:203:LEU:HD22	1:C:226:ARG:CB	2.38	0.48
1:C:278:GLN:O	1:C:339:ALA:N	2.42	0.48
1:C:291:PHE:CD1	1:C:347:LYS:NZ	2.81	0.48
1:D:172:PHE:O	1:D:224:ILE:CD1	2.61	0.48
1:D:200:GLU:HG2	1:D:201:LEU:CG	2.43	0.48
1:D:253:ILE:HD13	1:D:321:TYR:CE2	2.49	0.48
1:F:262:ARG:HA	1:F:265:VAL:HG23	1.94	0.48
1:F:329:MET:HB3	1:F:331:ARG:HG3	1.95	0.48
1:G:123:MET:O	1:G:127:ALA:N	2.37	0.48
1:G:211:ASP:OD2	2:G:401:CMP:C4'	2.62	0.48
1:G:233:LEU:CD1	1:G:233:LEU:N	2.53	0.48
1:H:144:ARG:O	1:H:145:SER:C	2.51	0.48
1:H:215:ALA:HB1	1:H:217:THR:O	2.13	0.48
1:H:298:ALA:CB	1:H:338:VAL:O	2.62	0.48
1:H:366:ARG:HG2	1:H:367:ASN:N	2.29	0.48
1:B:260:TRP:CZ2	2:B:401:CMP:C8	2.95	0.48
1:B:325:ILE:O	1:B:328:LEU:N	2.46	0.48
1:C:324:GLU:OE2	1:C:371:TYR:HE2	1.97	0.48
1:D:221:LEU:HD23	1:D:221:LEU:HA	1.46	0.48
1:F:130:ILE:CG1	1:F:136:PHE:CG	2.95	0.48
1:F:186:ASN:OD1	1:F:186:ASN:N	2.47	0.48
1:F:318:PRO:O	1:F:319:SER:CB	2.58	0.48
1:F:325:ILE:CD1	1:F:334:ALA:HB3	2.44	0.48
1:G:232:ILE:HG23	1:G:233:LEU:HG	1.95	0.48
1:G:294:LEU:HD11	1:G:345:CYS:C	2.34	0.48
1:H:158:ALA:HA	1:H:215:ALA:HB3	1.95	0.48
1:H:162:VAL:HG23	1:H:163:ILE:N	2.28	0.48
1:H:198:PHE:CD1	1:H:198:PHE:N	2.78	0.48
1:H:247:PHE:CE1	1:H:294:LEU:HB3	2.49	0.48
1:A:135:LEU:CD1	1:A:136:PHE:H	2.07	0.48
1:A:152:PHE:CD2	1:A:152:PHE:N	2.82	0.48
1:A:174:VAL:HG13	1:A:222:TRP:HB2	1.96	0.48
1:A:211:ASP:OD2	2:A:401:CMP:C4'	2.62	0.48
1:A:324:GLU:HB2	1:A:364:LEU:HD11	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:361:SER:C	1:A:365:LYS:NZ	2.61	0.48
1:B:183:TYR:CE1	1:B:188:TRP:CB	2.95	0.48
1:B:315:ARG:C	1:B:316:LEU:HD13	2.34	0.48
1:B:318:PRO:O	1:B:319:SER:HB3	2.14	0.48
1:C:130:ILE:HD12	1:C:136:PHE:CE2	2.48	0.48
1:E:243:MET:CE	1:G:158:ALA:O	2.61	0.48
1:E:261:GLU:O	1:E:265:VAL:HG23	2.14	0.48
1:F:113:ARG:NE	1:F:146:ASP:CG	2.67	0.48
1:G:139:LEU:N	1:G:139:LEU:CD1	2.67	0.48
1:G:229:TYR:O	1:G:233:LEU:HD12	2.14	0.48
1:H:157:ILE:O	1:H:158:ALA:C	2.51	0.48
1:H:246:GLU:O	1:H:248:LEU:N	2.47	0.48
1:A:112:VAL:CA	1:A:112:VAL:CG1	2.84	0.48
1:A:133:ASN:C	1:A:133:ASN:OD1	2.51	0.48
1:A:296:GLY:HA3	1:A:342:PRO:O	2.13	0.48
1:B:210:ALA:CA	1:B:211:ASP:OD1	2.61	0.48
1:B:252:SER:C	1:B:253:ILE:HG12	2.33	0.48
1:C:266:ALA:N	1:C:269:LEU:CD1	2.77	0.48
1:D:204:ILE:CG2	1:D:205:TYR:CE2	2.96	0.48
1:D:253:ILE:HG13	1:D:254:LEU:H	1.78	0.48
1:D:254:LEU:HB2	1:D:257:LEU:CD1	2.43	0.48
1:E:184:VAL:O	1:E:185:ASN:HB2	2.14	0.48
1:F:118:LYS:HB2	1:F:123:MET:HE1	1.95	0.48
1:F:259:LYS:HA	1:F:262:ARG:HD3	1.95	0.48
1:F:312:GLU:CD	1:F:340:ARG:HH12	2.16	0.48
1:G:144:ARG:CG	1:G:145:SER:N	2.76	0.48
1:H:300:VAL:HG11	2:H:402:CMP:H8	1.90	0.48
1:A:115:VAL:HA	1:A:149:ASP:HB3	1.94	0.48
1:A:120:TYR:CE2	1:A:124:ALA:HB2	2.49	0.48
1:A:129:ALA:HA	1:A:132:LYS:HE3	1.95	0.48
1:A:203:LEU:HD22	1:A:226:ARG:CG	2.44	0.48
1:A:261:GLU:O	1:A:265:VAL:HG23	2.14	0.48
1:B:200:GLU:HG3	1:B:201:LEU:H	1.74	0.48
1:C:152:PHE:HE2	1:C:223:GLY:CA	2.26	0.48
1:C:266:ALA:O	1:C:268:ALA:N	2.47	0.48
1:D:285:GLU:HB3	1:D:286:PRO:HD2	1.96	0.48
1:E:148:PHE:CD1	1:F:120:TYR:HE1	2.29	0.48
1:E:289:GLU:HG2	1:E:291:PHE:HE1	1.78	0.48
1:F:114:LYS:CE	1:F:115:VAL:N	2.77	0.48
1:F:273:GLN:HB2	1:F:343:LEU:O	2.14	0.48
1:H:120:TYR:HD2	1:H:121:LYS:N	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:162:VAL:HG23	1:A:163:ILE:N	2.28	0.47
1:A:260:TRP:HB2	2:A:401:CMP:N6	2.28	0.47
1:B:328:LEU:CD2	1:B:365:LYS:HE3	2.44	0.47
1:B:357:LEU:HA	1:B:357:LEU:HD12	1.58	0.47
1:B:376:SER:CA	1:C:306:GLU:HA	2.44	0.47
1:C:120:TYR:HD2	1:C:121:LYS:N	2.12	0.47
1:C:230:ARG:CZ	1:C:234:MET:CE	2.91	0.47
1:E:128:LYS:O	1:E:129:ALA:C	2.52	0.47
1:F:120:TYR:HD2	1:F:121:LYS:HA	1.78	0.47
1:G:226:ARG:NH1	1:G:227:ASP:OD1	2.37	0.47
1:G:269:LEU:CB	1:G:346:VAL:HG21	2.44	0.47
1:G:328:LEU:HD23	1:G:365:LYS:HE3	1.93	0.47
1:H:260:TRP:CD2	2:H:401:CMP:N7	2.82	0.47
1:A:153:PRO:N	1:A:222:TRP:HZ3	2.12	0.47
1:A:204:ILE:HG12	1:A:234:MET:SD	2.54	0.47
1:A:265:VAL:HA	1:A:356:VAL:HG11	1.96	0.47
1:B:207:THR:OG1	1:B:208:PRO:O	2.32	0.47
1:B:224:ILE:N	1:B:224:ILE:HD12	2.29	0.47
1:B:247:PHE:CE1	1:B:294:LEU:CB	2.97	0.47
1:B:309:GLU:OE1	1:B:310:PHE:CE2	2.67	0.47
1:C:121:LYS:O	1:C:122:THR:C	2.52	0.47
1:C:279:LYS:HB2	1:C:337:VAL:O	2.14	0.47
1:C:347:LYS:HE3	1:C:347:LYS:HB3	1.22	0.47
1:D:128:LYS:O	1:D:129:ALA:C	2.49	0.47
1:D:130:ILE:CD1	1:D:136:PHE:CD2	2.97	0.47
1:D:270:GLU:O	1:D:346:VAL:HA	2.14	0.47
1:D:300:VAL:CG1	1:D:314:GLY:H	2.27	0.47
1:D:352:ARG:HA	1:D:355:ARG:HB2	1.96	0.47
1:E:111:TYR:CD1	1:E:112:VAL:N	2.82	0.47
1:E:158:ALA:HB1	1:E:216:LYS:O	2.14	0.47
1:F:295:GLU:O	1:F:344:LYS:N	2.40	0.47
1:G:293:ILE:CG1	1:G:343:LEU:HD11	2.43	0.47
1:H:174:VAL:HG13	1:H:174:VAL:O	2.13	0.47
1:H:190:THR:CG2	1:H:191:SER:N	2.74	0.47
1:H:233:LEU:HD12	1:H:233:LEU:N	2.05	0.47
1:A:365:LYS:HA	1:A:368:ILE:CD1	2.44	0.47
1:B:152:PHE:CD2	1:B:223:GLY:O	2.68	0.47
1:B:260:TRP:NE1	2:B:401:CMP:C2'	2.72	0.47
1:B:356:VAL:HG23	1:B:357:LEU:N	2.29	0.47
1:C:176:ASP:HB2	1:C:222:TRP:CD1	2.49	0.47
1:C:229:TYR:O	1:C:233:LEU:HD12	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:160:GLU:O	1:D:214:LYS:HE3	2.15	0.47
1:E:158:ALA:HA	1:E:215:ALA:CB	2.45	0.47
1:E:230:ARG:NH1	1:E:234:MET:CE	2.78	0.47
1:E:233:LEU:O	1:E:234:MET:C	2.51	0.47
1:F:165:GLN:CB	1:F:211:ASP:O	2.62	0.47
1:F:229:TYR:O	1:F:233:LEU:HD12	2.14	0.47
1:F:300:VAL:HG12	1:F:335:ALA:HB1	1.93	0.47
1:G:361:SER:C	1:G:365:LYS:NZ	2.66	0.47
1:H:173:TYR:HB2	1:H:198:PHE:HE1	1.80	0.47
1:H:280:ILE:HG12	1:H:337:VAL:HB	1.96	0.47
1:H:301:LEU:O	1:H:302:GLN:CG	2.61	0.47
1:B:252:SER:C	1:B:253:ILE:CG1	2.83	0.47
1:B:311:VAL:CG1	1:B:312:GLU:H	2.28	0.47
1:C:120:TYR:HB3	1:D:149:ASP:OD1	2.12	0.47
1:C:124:ALA:O	1:C:127:ALA:HB3	2.14	0.47
1:C:280:ILE:HD11	1:C:322:PHE:CE2	2.33	0.47
1:D:230:ARG:NH1	1:D:234:MET:HE1	2.29	0.47
1:F:126:LEU:O	1:F:127:ALA:C	2.51	0.47
1:F:171:ASN:H	1:F:209:ARG:HH22	1.61	0.47
1:F:272:VAL:HA	1:F:273:GLN:HE22	1.79	0.47
1:F:366:ARG:HG2	1:F:367:ASN:H	1.79	0.47
1:G:173:TYR:CD2	1:G:198:PHE:CZ	3.02	0.47
1:H:176:ASP:O	1:H:194:GLU:HG2	2.15	0.47
1:H:289:GLU:N	1:H:327:LEU:HD11	2.30	0.47
1:H:327:LEU:HD23	1:H:353:PHE:CZ	2.48	0.47
1:H:356:VAL:HG23	1:H:357:LEU:N	2.29	0.47
1:H:366:ARG:O	1:H:369:GLN:CB	2.63	0.47
1:A:148:PHE:CD1	1:B:120:TYR:CE1	3.02	0.47
1:A:188:TRP:CZ3	1:A:190:THR:O	2.63	0.47
1:A:196:GLY:HA2	1:A:355:ARG:CZ	2.43	0.47
1:A:325:ILE:HD11	1:A:334:ALA:H	1.79	0.47
1:B:332:PRO:HD3	1:C:332:PRO:HG2	1.97	0.47
1:C:134:VAL:O	1:C:137:SER:HB3	2.14	0.47
1:C:138:HIS:O	1:C:139:LEU:C	2.50	0.47
1:E:266:ALA:O	1:E:268:ALA:N	2.47	0.47
1:E:272:VAL:HG22	1:E:273:GLN:N	2.27	0.47
1:F:126:LEU:O	1:F:126:LEU:CD1	2.46	0.47
1:F:199:GLY:H	2:F:401:CMP:H4'	1.79	0.47
1:F:247:PHE:C	1:F:247:PHE:HD2	2.17	0.47
1:H:178:GLY:CA	1:H:219:VAL:HG12	2.23	0.47
1:H:234:MET:HG3	1:H:234:MET:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:298:ALA:O	1:H:316:LEU:N	2.45	0.47
1:C:162:VAL:HG23	1:C:163:ILE:N	2.29	0.47
1:C:253:ILE:HG13	1:C:254:LEU:HG	1.96	0.47
1:C:298:ALA:O	1:C:316:LEU:N	2.46	0.47
1:C:302:GLN:CD	1:C:374:PHE:CB	2.83	0.47
1:D:164:GLN:HA	1:D:212:THR:CG2	2.43	0.47
1:D:353:PHE:O	1:D:357:LEU:HB2	2.14	0.47
1:F:248:LEU:CD1	1:F:265:VAL:HG11	2.44	0.47
1:H:293:ILE:HA	1:H:345:CYS:SG	2.55	0.47
1:A:110:SER:HB3	1:A:111:TYR:H	1.53	0.47
1:A:139:LEU:HB3	1:A:143:GLU:CB	2.43	0.47
1:A:253:ILE:C	1:A:255:GLU:H	2.16	0.47
1:B:158:ALA:HA	1:B:217:THR:O	2.13	0.47
1:B:183:TYR:HD1	1:B:188:TRP:CA	2.27	0.47
1:B:279:LYS:CE	1:B:282:VAL:HG22	2.34	0.47
1:C:265:VAL:C	1:C:269:LEU:HD11	2.35	0.47
1:C:366:ARG:CG	1:C:367:ASN:N	2.75	0.47
1:D:124:ALA:O	1:D:127:ALA:HB3	2.14	0.47
1:D:173:TYR:HD2	1:D:198:PHE:CZ	2.32	0.47
1:D:234:MET:HG3	1:D:234:MET:O	2.14	0.47
1:D:371:TYR:CE1	2:D:402:CMP:C4	3.03	0.47
1:E:175:ILE:O	1:E:175:ILE:CD1	2.39	0.47
1:E:230:ARG:CZ	1:E:234:MET:CE	2.93	0.47
1:E:294:LEU:HD11	1:E:345:CYS:CA	2.30	0.47
1:F:129:ALA:CB	1:F:222:TRP:NE1	2.76	0.47
1:F:136:PHE:O	1:F:139:LEU:HD11	2.15	0.47
1:F:233:LEU:CD1	1:F:233:LEU:N	2.68	0.47
1:F:294:LEU:HD13	1:F:345:CYS:HA	1.92	0.47
1:F:350:ARG:HB3	1:F:351:PRO:HD3	1.97	0.47
1:G:148:PHE:CG	1:H:120:TYR:CE1	3.02	0.47
1:G:249:SER:HA	1:G:262:ARG:NH2	2.29	0.47
1:H:157:ILE:O	1:H:157:ILE:CD1	2.47	0.47
1:H:343:LEU:HD12	1:H:343:LEU:HA	1.74	0.47
1:H:371:TYR:HE1	2:H:402:CMP:C5	2.31	0.47
1:A:182:VAL:HG23	1:A:189:ALA:HB3	1.97	0.47
1:A:245:GLU:OE1	1:A:246:GLU:OE1	2.33	0.47
1:B:127:ALA:O	1:B:130:ILE:HG22	2.15	0.47
1:B:186:ASN:N	1:B:186:ASN:OD1	2.48	0.47
1:B:293:ILE:HG21	1:B:317:GLY:C	2.35	0.47
1:C:116:ILE:CG2	1:C:118:LYS:HZ2	2.28	0.47
1:D:153:PRO:HA	1:D:222:TRP:CZ3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:311:VAL:O	1:D:311:VAL:HG22	2.14	0.47
1:E:153:PRO:HA	1:E:222:TRP:CE3	2.49	0.47
1:G:204:ILE:CG2	1:G:205:TYR:CE2	2.97	0.47
1:G:279:LYS:O	1:G:279:LYS:HG3	2.14	0.47
1:H:113:ARG:CB	1:H:231:ARG:HH12	2.28	0.47
1:A:260:TRP:CD1	2:A:401:CMP:N7	2.81	0.47
1:B:204:ILE:CG2	1:B:205:TYR:CD2	2.98	0.47
1:C:215:ALA:HB1	1:C:217:THR:O	2.14	0.47
1:C:291:PHE:CD2	1:C:322:PHE:CZ	3.02	0.47
1:D:119:ASP:O	1:D:120:TYR:C	2.53	0.47
1:E:204:ILE:HD13	1:E:238:LEU:HD11	1.96	0.47
1:E:233:LEU:CD1	1:E:233:LEU:N	2.68	0.47
1:E:253:ILE:HG13	1:E:254:LEU:CD2	2.45	0.47
1:E:260:TRP:NE1	2:E:401:CMP:C4	2.82	0.47
1:F:130:ILE:HD12	1:F:136:PHE:CE2	2.50	0.47
1:F:198:PHE:HD1	1:F:198:PHE:H	1.62	0.47
1:F:324:GLU:HB2	1:F:364:LEU:CD1	2.39	0.47
1:G:143:GLU:HB3	1:G:232:ILE:HD11	1.97	0.47
1:G:157:ILE:HG13	1:G:160:GLU:OE1	2.15	0.47
1:G:290:PHE:HB2	1:G:327:LEU:CD2	2.45	0.47
1:A:114:LYS:O	1:A:115:VAL:HG13	2.15	0.47
1:A:308:GLU:O	1:A:309:GLU:HB2	2.15	0.47
1:B:310:PHE:N	1:B:310:PHE:CD2	2.77	0.47
1:C:130:ILE:CD1	1:C:151:MET:CE	2.92	0.47
1:C:253:ILE:C	1:C:255:GLU:N	2.68	0.47
1:D:251:VAL:HG11	1:D:292:ILE:HD13	1.97	0.47
1:D:281:VAL:HG11	1:D:333:ARG:HD2	1.97	0.47
1:E:251:VAL:CG1	1:E:254:LEU:CD2	2.87	0.47
1:F:272:VAL:C	1:F:273:GLN:NE2	2.68	0.47
1:F:296:GLY:HA2	1:F:342:PRO:HG2	1.96	0.47
1:F:325:ILE:HG12	2:F:402:CMP:P	2.55	0.47
1:G:254:LEU:HB2	1:G:257:LEU:HD12	1.97	0.47
1:H:120:TYR:CD2	1:H:121:LYS:HA	2.46	0.47
1:H:281:VAL:HG13	1:H:333:ARG:CG	2.45	0.47
1:H:325:ILE:CD1	2:H:402:CMP:OI1P	2.61	0.47
1:A:126:LEU:C	1:A:126:LEU:CD1	2.81	0.46
1:A:321:TYR:CD1	1:A:321:TYR:O	2.68	0.46
1:B:203:LEU:HD22	1:B:226:ARG:CG	2.44	0.46
1:B:255:GLU:O	1:B:256:SER:C	2.53	0.46
1:B:266:ALA:O	1:B:269:LEU:N	2.44	0.46
1:B:272:VAL:C	1:B:273:GLN:NE2	2.66	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:284:GLY:C	1:B:332:PRO:HB3	2.36	0.46
1:C:111:TYR:CG	1:C:112:VAL:N	2.82	0.46
1:C:232:ILE:HG23	1:C:233:LEU:HG	1.96	0.46
1:C:316:LEU:CA	1:C:320:ASP:OD2	2.60	0.46
1:D:158:ALA:N	1:D:218:ASN:OD1	2.41	0.46
1:D:232:ILE:HG23	1:D:233:LEU:CD1	2.45	0.46
1:D:327:LEU:HD23	1:D:353:PHE:CG	2.49	0.46
1:D:347:LYS:HE3	1:D:347:LYS:HB3	1.30	0.46
1:E:183:TYR:HE1	1:E:188:TRP:HB2	1.75	0.46
1:E:186:ASN:N	1:E:186:ASN:OD1	2.47	0.46
1:G:130:ILE:CD1	1:G:136:PHE:CD2	2.98	0.46
1:G:265:VAL:C	1:G:269:LEU:HD11	2.35	0.46
1:H:258:ASP:O	1:H:262:ARG:HG3	2.15	0.46
1:H:301:LEU:HA	1:H:312:GLU:HA	1.97	0.46
1:H:352:ARG:O	1:H:353:PHE:C	2.52	0.46
1:A:139:LEU:N	1:A:139:LEU:CD1	2.64	0.46
1:A:260:TRP:CD1	2:A:401:CMP:C4	3.04	0.46
1:A:280:ILE:CD1	1:A:281:VAL:HG23	2.43	0.46
1:B:163:ILE:O	1:B:213:VAL:N	2.39	0.46
1:B:285:GLU:OE1	1:B:285:GLU:CA	2.63	0.46
1:C:304:ARG:H	1:C:308:GLU:CB	2.29	0.46
1:D:204:ILE:CG2	1:D:205:TYR:HD2	2.23	0.46
1:D:272:VAL:HA	1:D:273:GLN:NE2	2.31	0.46
1:E:116:ILE:HB	1:E:118:LYS:NZ	2.31	0.46
1:F:203:LEU:CD1	1:F:226:ARG:HB3	2.38	0.46
1:F:273:GLN:NE2	1:F:273:GLN:H	1.89	0.46
1:G:174:VAL:HA	1:G:196:GLY:O	2.16	0.46
1:H:301:LEU:CA	1:H:311:VAL:O	2.63	0.46
1:H:357:LEU:CD1	1:H:357:LEU:N	2.72	0.46
1:A:113:ARG:CG	1:D:113:ARG:CB	2.93	0.46
1:B:123:MET:C	1:B:125:ALA:N	2.68	0.46
1:B:153:PRO:HA	1:B:222:TRP:CZ3	2.46	0.46
1:B:331:ARG:HH21	1:B:376:SER:HB3	1.80	0.46
1:C:157:ILE:O	1:C:158:ALA:C	2.51	0.46
1:C:175:ILE:HG22	1:C:221:LEU:HD21	1.97	0.46
1:C:230:ARG:O	1:C:234:MET:CB	2.58	0.46
1:D:131:GLU:N	1:D:131:GLU:CD	2.68	0.46
1:D:201:LEU:HB2	2:D:401:CMP:P	2.55	0.46
1:D:253:ILE:CG2	1:D:321:TYR:CE2	2.98	0.46
1:D:290:PHE:HB2	1:D:327:LEU:CD2	2.45	0.46
1:E:325:ILE:CG1	2:E:402:CMP:O2P	2.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:327:LEU:HD23	1:E:353:PHE:CD2	2.51	0.46
1:F:175:ILE:CD1	1:F:196:GLY:N	2.74	0.46
1:F:292:ILE:HB	1:F:346:VAL:HG13	1.96	0.46
1:F:366:ARG:O	1:F:369:GLN:CB	2.63	0.46
1:G:266:ALA:N	1:G:269:LEU:HD11	2.30	0.46
1:H:152:PHE:CD2	1:H:152:PHE:C	2.87	0.46
1:A:230:ARG:HH12	1:A:234:MET:HE3	1.74	0.46
1:A:266:ALA:O	1:A:268:ALA:N	2.49	0.46
1:B:173:TYR:HB3	1:B:222:TRP:O	2.15	0.46
1:C:148:PHE:CD1	1:D:120:TYR:CE1	3.03	0.46
1:C:251:VAL:CG2	1:C:319:SER:O	2.63	0.46
1:C:371:TYR:OH	2:C:402:CMP:C2'	2.64	0.46
1:D:162:VAL:HG23	1:D:163:ILE:H	1.79	0.46
1:E:152:PHE:CD2	1:E:223:GLY:O	2.69	0.46
1:F:143:GLU:HB3	1:F:232:ILE:HD11	1.98	0.46
1:F:175:ILE:CD1	1:F:194:GLU:HA	2.41	0.46
1:G:179:GLU:HB3	1:G:217:THR:HG23	1.97	0.46
1:G:296:GLY:CA	1:G:342:PRO:O	2.63	0.46
1:H:204:ILE:HG21	1:H:238:LEU:HD21	1.97	0.46
1:H:284:GLY:HA2	1:H:332:PRO:HB3	1.97	0.46
1:A:184:VAL:HG22	1:A:185:ASN:OD1	2.16	0.46
1:B:253:ILE:HD13	1:B:321:TYR:CD2	2.51	0.46
1:B:327:LEU:HD23	1:B:353:PHE:CG	2.49	0.46
1:B:352:ARG:HA	1:B:355:ARG:HB2	1.97	0.46
1:C:362:ASP:O	1:C:365:LYS:N	2.46	0.46
1:D:325:ILE:CD1	1:D:334:ALA:CB	2.94	0.46
1:E:151:MET:HA	1:E:224:ILE:CG2	2.45	0.46
1:E:203:LEU:CD1	1:E:229:TYR:HD2	2.28	0.46
1:E:298:ALA:HB1	1:E:338:VAL:O	2.14	0.46
1:F:234:MET:CG	1:F:238:LEU:HD12	2.45	0.46
1:F:260:TRP:NE1	2:F:401:CMP:N9	2.64	0.46
1:G:204:ILE:CG2	1:G:205:TYR:HD2	2.23	0.46
1:H:151:MET:HA	1:H:224:ILE:HG22	1.96	0.46
1:H:262:ARG:O	1:H:265:VAL:CB	2.54	0.46
1:H:276:ASP:HA	1:H:339:ALA:O	2.16	0.46
1:A:293:ILE:HG21	1:A:317:GLY:C	2.36	0.46
1:B:135:LEU:HD13	1:B:136:PHE:CE1	2.51	0.46
1:B:226:ARG:HA	1:B:229:TYR:HB3	1.97	0.46
1:B:325:ILE:HD11	1:B:334:ALA:H	1.79	0.46
1:C:272:VAL:CG2	1:C:273:GLN:H	2.24	0.46
1:D:129:ALA:HB3	1:D:222:TRP:HE1	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:157:ILE:O	1:D:157:ILE:HD12	2.16	0.46
1:E:144:ARG:O	1:E:145:SER:C	2.54	0.46
1:F:140:ASP:N	1:F:143:GLU:OE1	2.46	0.46
1:F:153:PRO:HA	1:F:222:TRP:CZ3	2.49	0.46
1:F:170:ASP:O	1:F:171:ASN:OD1	2.34	0.46
1:H:153:PRO:HA	1:H:222:TRP:CZ3	2.51	0.46
1:H:272:VAL:HG22	1:H:273:GLN:N	2.31	0.46
1:A:152:PHE:CE2	1:A:223:GLY:CA	2.96	0.46
1:A:152:PHE:HB2	1:A:153:PRO:HD2	1.97	0.46
1:B:131:GLU:O	1:B:133:ASN:N	2.49	0.46
1:B:239:ARG:C	1:B:241:ARG:H	2.19	0.46
1:B:269:LEU:CB	1:B:346:VAL:CG2	2.73	0.46
1:B:270:GLU:O	1:B:346:VAL:HA	2.15	0.46
1:B:299:ALA:O	1:B:337:VAL:HA	2.15	0.46
1:C:130:ILE:HG13	1:C:136:PHE:CB	2.46	0.46
1:C:220:LYS:C	1:C:221:LEU:HD23	2.35	0.46
1:D:253:ILE:C	1:D:255:GLU:H	2.19	0.46
1:D:366:ARG:HG2	1:D:367:ASN:H	1.80	0.46
1:E:174:VAL:CG1	1:E:222:TRP:HB2	2.46	0.46
1:E:279:LYS:O	1:E:279:LYS:HG3	2.15	0.46
1:E:325:ILE:HG12	2:E:402:CMP:O3'	2.16	0.46
1:F:328:LEU:HD11	1:F:364:LEU:HD11	1.96	0.46
1:G:155:SER:O	1:G:156:PHE:CD1	2.69	0.46
1:G:211:ASP:OD1	2:G:401:CMP:H5'1	2.14	0.46
1:G:265:VAL:C	1:G:269:LEU:CD1	2.84	0.46
1:H:175:ILE:HD11	1:H:194:GLU:C	2.35	0.46
1:A:113:ARG:NE	1:D:113:ARG:O	2.49	0.46
1:A:249:SER:CA	1:A:262:ARG:NH2	2.68	0.46
1:A:279:LYS:HB3	1:A:338:VAL:CG2	2.43	0.46
1:B:171:ASN:HB2	1:B:173:TYR:CE1	2.51	0.46
1:B:273:GLN:CB	1:B:343:LEU:O	2.59	0.46
1:B:292:ILE:HB	1:B:346:VAL:CG1	2.45	0.46
1:C:110:SER:C	1:F:114:LYS:HZ3	2.19	0.46
1:C:120:TYR:CD2	1:C:121:LYS:N	2.84	0.46
1:C:188:TRP:HZ3	1:C:190:THR:C	2.16	0.46
1:C:375:VAL:HG23	1:C:376:SER:N	2.25	0.46
1:D:126:LEU:O	1:D:127:ALA:C	2.52	0.46
1:D:200:GLU:CD	1:D:201:LEU:HD12	2.36	0.46
1:E:175:ILE:CD1	1:E:194:GLU:HA	2.41	0.46
1:E:178:GLY:CA	1:E:219:VAL:HG12	2.32	0.46
1:E:209:ARG:HD2	2:E:401:CMP:O5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:152:PHE:HD2	1:F:152:PHE:H	1.63	0.46
1:F:290:PHE:C	1:F:291:PHE:CD1	2.79	0.46
1:G:164:GLN:O	1:G:167:ASP:HB2	2.16	0.46
1:G:221:LEU:HA	1:G:221:LEU:HD23	1.42	0.46
1:G:251:VAL:HG12	1:G:254:LEU:HD21	1.90	0.46
1:H:302:GLN:O	1:H:309:GLU:O	2.33	0.46
1:A:111:TYR:O	1:A:112:VAL:CG1	2.64	0.46
1:A:111:TYR:CA	1:D:115:VAL:CG2	2.90	0.46
1:A:133:ASN:O	1:A:135:LEU:HD12	2.16	0.46
1:A:136:PHE:HE1	1:A:233:LEU:CD2	2.28	0.46
1:A:154:VAL:HG12	1:A:221:LEU:CB	2.32	0.46
1:A:247:PHE:HE1	1:A:294:LEU:HB3	1.81	0.46
1:B:260:TRP:CZ2	2:B:401:CMP:H8	2.51	0.46
1:B:302:GLN:O	1:B:310:PHE:CA	2.62	0.46
1:C:176:ASP:N	1:C:220:LYS:O	2.48	0.46
1:C:208:PRO:O	1:C:209:ARG:C	2.52	0.46
1:C:253:ILE:HD13	1:C:321:TYR:CE2	2.51	0.46
1:C:301:LEU:HD13	1:C:336:THR:HB	1.97	0.46
1:C:328:LEU:HD22	1:C:365:LYS:HE3	1.98	0.46
1:D:241:ARG:O	1:D:242:LYS:C	2.52	0.46
1:D:348:LEU:HD21	1:D:356:VAL:CG2	2.46	0.46
1:E:116:ILE:HG22	1:E:118:LYS:CG	2.43	0.46
1:E:164:GLN:CA	1:E:212:THR:HG22	2.37	0.46
1:E:363:ILE:O	1:E:366:ARG:HG2	2.16	0.46
1:F:113:ARG:CD	1:F:146:ASP:OD2	2.64	0.46
1:F:130:ILE:HG13	1:F:136:PHE:CB	2.45	0.46
1:F:274:PHE:N	1:F:343:LEU:O	2.40	0.46
1:G:147:ILE:HD13	1:G:147:ILE:HG21	1.54	0.46
1:G:162:VAL:CG2	1:G:213:VAL:O	2.63	0.46
1:H:158:ALA:HA	1:H:215:ALA:HB1	1.98	0.46
1:H:285:GLU:HB2	1:H:333:ARG:CG	2.46	0.46
1:H:297:SER:HA	1:H:316:LEU:O	2.16	0.46
1:H:313:VAL:HG12	1:H:314:GLY:N	2.31	0.46
1:H:341:GLY:HA3	1:H:342:PRO:HD2	1.67	0.46
1:B:203:LEU:CD1	1:B:229:TYR:HD2	2.28	0.46
1:B:211:ASP:OD1	2:B:401:CMP:O1P	2.34	0.46
1:B:241:ARG:O	1:B:245:GLU:HB2	2.16	0.46
1:C:259:LYS:O	1:C:262:ARG:N	2.49	0.46
1:C:261:GLU:O	1:C:264:THR:N	2.49	0.46
1:C:268:ALA:O	1:C:352:ARG:NH1	2.49	0.46
1:C:343:LEU:HD12	1:C:343:LEU:HA	1.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:152:PHE:HE1	1:D:223:GLY:HA3	1.81	0.46
1:E:143:GLU:O	1:E:144:ARG:C	2.54	0.46
1:E:273:GLN:HE21	1:E:273:GLN:CA	2.20	0.46
1:E:325:ILE:CD1	1:E:334:ALA:HB3	2.46	0.46
1:F:226:ARG:O	1:F:227:ASP:C	2.53	0.46
1:F:232:ILE:HG23	1:F:233:LEU:HG	1.98	0.46
1:G:270:GLU:O	1:G:346:VAL:HA	2.15	0.46
1:G:300:VAL:CG2	1:G:316:LEU:HD11	2.46	0.46
1:H:131:GLU:OE1	1:H:131:GLU:CA	2.62	0.46
1:H:164:GLN:O	1:H:167:ASP:HB2	2.16	0.46
1:H:208:PRO:O	1:H:209:ARG:C	2.54	0.46
1:A:253:ILE:HG13	1:A:254:LEU:HG	1.97	0.45
1:A:343:LEU:HD12	1:A:343:LEU:HA	1.70	0.45
1:B:325:ILE:HD13	1:B:334:ALA:HB3	1.98	0.45
1:C:154:VAL:O	1:C:154:VAL:CG1	2.63	0.45
1:C:158:ALA:HB2	1:C:218:ASN:N	2.29	0.45
1:C:300:VAL:CG2	1:C:312:GLU:OE2	2.64	0.45
1:D:113:ARG:NH1	1:D:146:ASP:OD1	2.49	0.45
1:F:114:LYS:HD2	1:F:114:LYS:HA	1.33	0.45
1:F:127:ALA:O	1:F:128:LYS:C	2.52	0.45
1:F:201:LEU:O	1:F:204:ILE:N	2.49	0.45
1:F:221:LEU:HD23	1:F:221:LEU:HA	1.48	0.45
1:G:152:PHE:HE2	1:G:223:GLY:CA	2.29	0.45
1:G:292:ILE:O	1:G:345:CYS:HB3	2.17	0.45
1:H:221:LEU:HD23	1:H:221:LEU:HA	1.36	0.45
1:H:281:VAL:HG13	1:H:333:ARG:HG3	1.96	0.45
1:H:325:ILE:HG12	2:H:402:CMP:O3'	2.17	0.45
1:B:365:LYS:O	1:B:368:ILE:N	2.35	0.45
1:C:144:ARG:NH1	1:C:144:ARG:HB2	2.30	0.45
1:D:362:ASP:O	1:D:365:LYS:HG3	2.16	0.45
1:E:230:ARG:HG2	1:E:230:ARG:NH1	2.31	0.45
1:E:255:GLU:OE1	1:E:255:GLU:CA	2.41	0.45
1:E:292:ILE:HB	1:E:346:VAL:CG1	2.38	0.45
1:E:328:LEU:HD11	1:E:364:LEU:HD11	1.98	0.45
1:F:160:GLU:O	1:F:214:LYS:HA	2.16	0.45
1:F:278:GLN:HG2	1:F:279:LYS:H	1.77	0.45
1:G:165:GLN:HG2	1:G:166:GLY:N	2.30	0.45
1:G:198:PHE:HD1	1:G:198:PHE:N	2.14	0.45
1:G:247:PHE:HE1	1:G:294:LEU:CB	2.29	0.45
1:H:188:TRP:CH2	1:H:190:THR:CA	2.97	0.45
1:H:362:ASP:O	1:H:363:ILE:C	2.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:121:LYS:O	1:A:122:THR:C	2.54	0.45
1:A:157:ILE:CB	1:A:218:ASN:OD1	2.65	0.45
1:A:280:ILE:HB	1:A:291:PHE:CE2	2.46	0.45
1:B:226:ARG:O	1:B:227:ASP:O	2.35	0.45
1:B:245:GLU:OE1	1:B:246:GLU:OE1	2.35	0.45
1:C:130:ILE:HD12	1:C:136:PHE:CD2	2.51	0.45
1:C:162:VAL:HG22	1:C:213:VAL:O	2.16	0.45
1:C:163:ILE:HD12	1:C:213:VAL:CG2	2.46	0.45
1:C:313:VAL:HG21	2:C:402:CMP:N6	2.32	0.45
1:D:123:MET:O	1:D:126:LEU:N	2.50	0.45
1:D:274:PHE:HD2	1:D:343:LEU:HD23	1.81	0.45
1:D:366:ARG:CG	1:D:367:ASN:N	2.79	0.45
1:E:175:ILE:HA	1:E:221:LEU:HD23	1.88	0.45
1:E:254:LEU:HB2	1:E:257:LEU:HD12	1.99	0.45
1:F:175:ILE:HG21	1:F:180:MET:HG3	1.98	0.45
1:F:366:ARG:HG2	1:F:367:ASN:N	2.31	0.45
1:H:371:TYR:CD1	2:H:402:CMP:C6	3.05	0.45
1:A:120:TYR:CD2	1:A:121:LYS:N	2.81	0.45
1:B:162:VAL:HG22	1:B:213:VAL:O	2.15	0.45
1:B:165:GLN:HE22	1:B:185:ASN:HD21	1.64	0.45
1:B:280:ILE:HD12	1:B:281:VAL:HG23	1.98	0.45
1:C:154:VAL:O	1:C:221:LEU:N	2.37	0.45
1:D:154:VAL:HG12	1:D:221:LEU:HB2	1.99	0.45
1:D:157:ILE:CD1	1:F:243:MET:HE1	2.46	0.45
1:D:268:ALA:C	1:D:269:LEU:O	2.45	0.45
1:D:316:LEU:O	1:D:316:LEU:CD2	2.64	0.45
1:F:153:PRO:HB3	1:F:222:TRP:CH2	2.51	0.45
1:F:254:LEU:C	1:F:254:LEU:CD1	2.84	0.45
1:F:325:ILE:CG1	2:F:402:CMP:O1P	2.65	0.45
1:G:123:MET:HE2	1:G:123:MET:HB2	1.95	0.45
1:G:325:ILE:O	1:G:328:LEU:N	2.49	0.45
1:G:368:ILE:HA	1:G:371:TYR:HD2	1.81	0.45
1:H:120:TYR:O	1:H:121:LYS:C	2.52	0.45
1:H:121:LYS:O	1:H:122:THR:C	2.54	0.45
1:H:173:TYR:CB	1:H:198:PHE:HE1	2.29	0.45
1:H:254:LEU:O	1:H:257:LEU:HG	2.17	0.45
1:H:260:TRP:HZ2	2:H:401:CMP:O2'	1.98	0.45
1:A:157:ILE:O	1:A:160:GLU:HB2	2.16	0.45
1:A:183:TYR:CE1	1:A:188:TRP:HB3	2.51	0.45
1:A:183:TYR:HE1	1:A:188:TRP:CB	2.28	0.45
1:A:221:LEU:HD23	1:A:221:LEU:HA	1.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:118:LYS:CE	1:B:148:PHE:O	2.54	0.45
1:B:302:GLN:O	1:B:310:PHE:CB	2.64	0.45
1:C:157:ILE:HB	1:C:218:ASN:OD1	2.17	0.45
1:C:283:GLN:CG	1:C:333:ARG:O	2.64	0.45
1:D:114:LYS:O	1:D:114:LYS:CG	2.62	0.45
1:D:174:VAL:HG13	1:D:222:TRP:HB2	1.98	0.45
1:E:239:ARG:HD3	1:G:157:ILE:CG1	2.47	0.45
1:F:139:LEU:N	1:F:139:LEU:CD1	2.67	0.45
1:F:211:ASP:OD2	2:F:401:CMP:C3'	2.63	0.45
1:G:139:LEU:HD21	1:G:147:ILE:HD13	1.99	0.45
1:G:153:PRO:HA	1:G:222:TRP:CE3	2.51	0.45
1:G:183:TYR:HD1	1:G:188:TRP:CA	2.29	0.45
1:G:230:ARG:HG2	1:G:230:ARG:HH11	1.82	0.45
1:G:366:ARG:O	1:G:369:GLN:CB	2.63	0.45
1:G:371:TYR:OH	2:G:402:CMP:H2'	2.16	0.45
1:H:123:MET:HB2	1:H:123:MET:HE2	1.65	0.45
1:H:130:ILE:HD13	1:H:151:MET:HE2	1.98	0.45
1:H:158:ALA:CA	1:H:217:THR:O	2.65	0.45
1:H:283:GLN:CA	1:H:333:ARG:O	2.63	0.45
1:A:230:ARG:CZ	1:A:234:MET:CE	2.94	0.45
1:B:259:LYS:CG	1:B:260:TRP:N	2.61	0.45
1:B:262:ARG:HE	1:B:262:ARG:HB3	1.42	0.45
1:C:221:LEU:HD23	1:C:221:LEU:HA	1.43	0.45
1:D:232:ILE:HG23	1:D:233:LEU:CG	2.45	0.45
1:D:268:ALA:O	1:D:352:ARG:NH1	2.50	0.45
1:D:283:GLN:HG2	1:D:284:GLY:N	2.30	0.45
1:E:123:MET:C	1:E:125:ALA:N	2.68	0.45
1:E:194:GLU:O	1:E:355:ARG:HD2	2.17	0.45
1:E:224:ILE:HD13	1:E:224:ILE:C	2.36	0.45
1:E:265:VAL:CG1	1:E:269:LEU:CD2	2.65	0.45
1:E:293:ILE:CD1	1:E:343:LEU:HD11	2.46	0.45
1:F:120:TYR:O	1:F:121:LYS:C	2.51	0.45
1:F:291:PHE:CD1	1:F:347:LYS:NZ	2.78	0.45
1:G:269:LEU:HB3	1:G:346:VAL:HG22	1.95	0.45
1:H:230:ARG:HB3	1:H:234:MET:CE	2.47	0.45
1:H:352:ARG:HA	1:H:355:ARG:HB2	1.98	0.45
1:A:113:ARG:HH12	1:D:150:ALA:HB2	1.81	0.45
1:B:130:ILE:HD11	1:B:151:MET:CE	2.46	0.45
1:C:153:PRO:HA	1:C:222:TRP:CE3	2.51	0.45
1:D:200:GLU:CG	1:D:201:LEU:HD12	2.46	0.45
1:D:300:VAL:HG13	1:D:313:VAL:HG13	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:118:LYS:CE	1:E:148:PHE:O	2.56	0.45
1:E:131:GLU:O	1:E:132:LYS:C	2.54	0.45
1:E:270:GLU:O	1:E:346:VAL:HA	2.17	0.45
1:F:130:ILE:HD12	1:F:151:MET:CE	2.47	0.45
1:G:171:ASN:OD1	1:G:225:ASP:HA	2.16	0.45
1:H:226:ARG:HA	1:H:229:TYR:HB3	1.99	0.45
1:H:254:LEU:HB2	1:H:257:LEU:HD12	1.98	0.45
1:H:262:ARG:HA	1:H:265:VAL:HG21	1.98	0.45
1:H:282:VAL:O	1:H:333:ARG:HB2	2.16	0.45
1:A:253:ILE:HG13	1:A:254:LEU:CG	2.45	0.45
1:C:120:TYR:CE2	1:C:124:ALA:HB2	2.51	0.45
1:C:188:TRP:CZ3	1:C:190:THR:CA	2.99	0.45
1:C:188:TRP:HZ3	1:C:190:THR:O	2.00	0.45
1:C:259:LYS:C	1:C:262:ARG:HG3	2.38	0.45
1:E:116:ILE:HG22	1:E:118:LYS:HZ2	1.80	0.45
1:F:129:ALA:HA	1:F:132:LYS:HE3	1.99	0.45
1:F:209:ARG:HD2	2:F:401:CMP:O5'	2.16	0.45
1:G:234:MET:O	1:G:238:LEU:HD12	2.17	0.45
1:G:265:VAL:HG12	1:G:269:LEU:CD2	2.41	0.45
1:G:278:GLN:HG3	1:G:279:LYS:H	1.79	0.45
1:H:229:TYR:O	1:H:233:LEU:HD12	2.17	0.45
1:B:262:ARG:HA	1:B:265:VAL:HG21	1.97	0.45
1:C:176:ASP:O	1:C:194:GLU:HG2	2.17	0.45
1:C:190:THR:CG2	1:C:191:SER:N	2.76	0.45
1:C:201:LEU:O	1:C:204:ILE:N	2.50	0.45
1:C:203:LEU:HD22	1:C:226:ARG:CG	2.46	0.45
1:C:293:ILE:CG1	1:C:345:CYS:SG	3.01	0.45
1:D:160:GLU:C	1:D:214:LYS:HE3	2.37	0.45
1:D:304:ARG:CB	1:D:308:GLU:CB	2.95	0.45
1:E:110:SER:HB2	1:H:115:VAL:HG22	1.99	0.45
1:E:118:LYS:NZ	1:E:151:MET:O	2.43	0.45
1:E:147:ILE:O	1:E:150:ALA:N	2.50	0.45
1:E:180:MET:O	1:E:191:SER:HA	2.16	0.45
1:E:183:TYR:CD1	1:E:188:TRP:CB	3.00	0.45
1:E:203:LEU:CD1	1:E:229:TYR:CD2	2.95	0.45
1:E:232:ILE:HG23	1:E:233:LEU:HG	1.98	0.45
1:E:239:ARG:HH22	1:G:156:PHE:HD1	1.61	0.45
1:F:289:GLU:CG	1:F:347:LYS:HZ1	2.27	0.45
1:F:301:LEU:HD13	1:F:311:VAL:N	2.32	0.45
1:G:151:MET:HA	1:G:224:ILE:CG2	2.46	0.45
1:G:347:LYS:O	1:G:348:LEU:CD1	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:350:ARG:O	1:G:353:PHE:CB	2.57	0.45
1:H:302:GLN:O	1:H:310:PHE:CE1	2.69	0.45
1:A:249:SER:HA	1:A:262:ARG:NH2	2.32	0.45
1:B:157:ILE:HD12	1:B:157:ILE:C	2.36	0.45
1:B:261:GLU:O	1:B:264:THR:N	2.50	0.45
1:B:357:LEU:O	1:B:360:CYS:HB2	2.17	0.45
1:C:270:GLU:CB	1:C:271:PRO:CD	2.94	0.45
1:C:300:VAL:CG2	1:C:313:VAL:HG12	2.37	0.45
1:C:325:ILE:HG12	2:C:402:CMP:P	2.57	0.45
1:C:328:LEU:HD23	1:C:365:LYS:HE3	1.98	0.45
1:E:234:MET:HG3	1:E:238:LEU:CD1	2.47	0.45
1:E:253:ILE:CG2	1:E:321:TYR:CE2	2.96	0.45
1:E:281:VAL:CG1	1:E:333:ARG:NE	2.80	0.45
1:F:115:VAL:HG12	1:F:149:ASP:HB3	1.99	0.45
1:G:152:PHE:CD2	1:G:152:PHE:N	2.80	0.45
1:G:247:PHE:HE1	1:G:294:LEU:HB3	1.81	0.45
1:A:316:LEU:HB2	1:A:320:ASP:OD2	2.16	0.44
1:B:126:LEU:O	1:B:126:LEU:CD1	2.47	0.44
1:C:143:GLU:O	1:C:144:ARG:C	2.54	0.44
1:D:121:LYS:O	1:D:122:THR:C	2.55	0.44
1:D:237:THR:O	1:D:241:ARG:HG3	2.16	0.44
1:D:300:VAL:HG13	1:D:300:VAL:O	2.16	0.44
1:D:300:VAL:HG23	1:D:335:ALA:HB1	1.96	0.44
1:E:297:SER:O	1:E:340:ARG:HB2	2.17	0.44
1:H:158:ALA:CB	1:H:217:THR:O	2.65	0.44
1:H:163:ILE:HD11	1:H:198:PHE:CZ	2.53	0.44
1:A:272:VAL:CG2	1:A:273:GLN:N	2.80	0.44
1:A:361:SER:HB2	1:A:365:LYS:HZ1	1.82	0.44
1:B:300:VAL:CG1	1:B:335:ALA:CB	2.94	0.44
1:C:366:ARG:O	1:C:369:GLN:CB	2.65	0.44
1:D:253:ILE:CD1	1:D:321:TYR:CD2	3.00	0.44
1:E:261:GLU:O	1:E:264:THR:N	2.50	0.44
1:E:278:GLN:O	1:E:338:VAL:HG22	2.18	0.44
1:F:113:ARG:CD	1:F:146:ASP:HA	2.47	0.44
1:F:121:LYS:O	1:F:123:MET:N	2.50	0.44
1:F:280:ILE:HB	1:F:291:PHE:CE2	2.51	0.44
1:G:175:ILE:HA	1:G:221:LEU:HD23	1.92	0.44
1:G:292:ILE:HB	1:G:346:VAL:CG1	2.44	0.44
1:G:295:GLU:CB	1:G:344:LYS:HB3	2.43	0.44
1:H:262:ARG:HE	1:H:262:ARG:HB3	1.48	0.44
1:H:328:LEU:HD12	1:H:328:LEU:H	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:139:LEU:CD2	1:A:147:ILE:CD1	2.96	0.44
1:A:201:LEU:O	1:A:204:ILE:N	2.51	0.44
1:A:271:PRO:O	1:A:272:VAL:HB	2.18	0.44
1:A:272:VAL:CG2	1:A:273:GLN:H	2.21	0.44
1:B:162:VAL:HG23	1:B:163:ILE:H	1.81	0.44
1:B:173:TYR:CD2	1:B:198:PHE:CZ	2.95	0.44
1:B:269:LEU:CD2	1:B:346:VAL:CG2	2.92	0.44
1:C:183:TYR:HD1	1:C:188:TRP:CA	2.28	0.44
1:C:259:LYS:O	1:C:262:ARG:CG	2.60	0.44
1:D:158:ALA:HB1	1:D:216:LYS:O	2.18	0.44
1:D:183:TYR:CD1	1:D:188:TRP:CB	3.01	0.44
1:E:121:LYS:O	1:E:122:THR:C	2.55	0.44
1:E:239:ARG:HH22	1:G:156:PHE:HA	1.82	0.44
1:E:265:VAL:C	1:E:269:LEU:HG	2.32	0.44
1:E:302:GLN:NE2	1:E:374:PHE:CB	2.80	0.44
1:F:139:LEU:HD21	1:F:147:ILE:HD13	1.98	0.44
1:G:172:PHE:CE1	1:G:200:GLU:HB3	2.53	0.44
1:G:309:GLU:OE1	1:G:309:GLU:HA	2.17	0.44
1:A:273:GLN:HE21	1:A:273:GLN:CA	2.23	0.44
1:B:124:ALA:O	1:B:127:ALA:HB3	2.17	0.44
1:C:111:TYR:CD1	1:C:112:VAL:N	2.85	0.44
1:D:198:PHE:HD1	1:D:198:PHE:H	1.66	0.44
1:D:335:ALA:HB3	2:D:402:CMP:H5'1	2.00	0.44
1:E:259:LYS:O	1:E:262:ARG:N	2.49	0.44
1:E:325:ILE:HD11	1:E:334:ALA:H	1.80	0.44
1:E:352:ARG:HA	1:E:355:ARG:HB2	2.00	0.44
1:F:121:LYS:O	1:F:122:THR:C	2.55	0.44
1:F:185:ASN:O	1:F:186:ASN:HB2	2.18	0.44
1:F:300:VAL:HG11	1:F:335:ALA:CB	2.47	0.44
1:G:274:PHE:CD2	1:G:343:LEU:HD23	2.52	0.44
1:A:293:ILE:CG1	1:A:343:LEU:HD11	2.48	0.44
1:B:152:PHE:HD2	1:B:152:PHE:N	2.14	0.44
1:B:202:ALA:HB1	1:B:207:THR:O	2.18	0.44
1:B:253:ILE:HG13	1:B:254:LEU:HD23	1.98	0.44
1:D:246:GLU:C	1:D:248:LEU:N	2.66	0.44
1:E:203:LEU:HD22	1:E:226:ARG:HD3	2.00	0.44
1:E:247:PHE:C	1:E:247:PHE:HD2	2.18	0.44
1:F:147:ILE:O	1:F:150:ALA:N	2.51	0.44
1:G:357:LEU:HD12	1:G:357:LEU:HA	1.67	0.44
1:H:153:PRO:CB	1:H:222:TRP:HZ3	2.28	0.44
1:A:149:ASP:OD1	1:B:120:TYR:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:294:LEU:O	1:A:295:GLU:CG	2.65	0.44
1:B:262:ARG:HA	1:B:265:VAL:HG23	1.99	0.44
1:C:265:VAL:C	1:C:269:LEU:CD1	2.86	0.44
1:C:362:ASP:N	1:C:365:LYS:HZ2	2.08	0.44
1:D:257:LEU:HD21	1:D:360:CYS:SG	2.58	0.44
1:E:266:ALA:N	1:E:269:LEU:HD11	2.33	0.44
1:F:183:TYR:HD1	1:F:188:TRP:CA	2.30	0.44
1:F:253:ILE:HG13	1:F:254:LEU:N	2.30	0.44
1:G:130:ILE:HG13	1:G:136:PHE:CD2	2.53	0.44
1:G:147:ILE:HG23	1:G:232:ILE:HD13	2.00	0.44
1:H:229:TYR:CD1	1:H:233:LEU:HD12	2.45	0.44
1:A:144:ARG:HB2	1:A:144:ARG:HH11	1.79	0.44
1:A:238:LEU:O	1:A:241:ARG:HB2	2.18	0.44
1:B:183:TYR:HE1	1:B:188:TRP:HB2	1.78	0.44
1:C:295:GLU:CG	1:C:318:PRO:HG3	2.48	0.44
1:D:247:PHE:CD2	1:D:247:PHE:O	2.70	0.44
1:D:278:GLN:HG2	1:D:279:LYS:N	2.32	0.44
1:D:280:ILE:HB	1:D:291:PHE:HE2	1.82	0.44
1:E:175:ILE:HD13	1:E:194:GLU:CA	2.43	0.44
1:E:357:LEU:HD12	1:E:357:LEU:N	2.28	0.44
1:E:366:ARG:O	1:E:369:GLN:HB2	2.18	0.44
1:F:113:ARG:NE	1:F:146:ASP:OD1	2.51	0.44
1:F:153:PRO:N	1:F:222:TRP:HZ3	2.16	0.44
1:F:178:GLY:N	1:F:194:GLU:HG3	2.30	0.44
1:F:185:ASN:OD1	1:F:185:ASN:N	2.46	0.44
1:G:157:ILE:CA	1:G:218:ASN:OD1	2.66	0.44
1:H:147:ILE:O	1:H:150:ALA:N	2.51	0.44
1:H:273:GLN:HB3	1:H:343:LEU:O	2.17	0.44
1:H:303:ARG:N	1:H:310:PHE:CE1	2.85	0.44
1:A:115:VAL:HG12	1:A:149:ASP:HB3	2.00	0.44
1:A:130:ILE:HG23	1:A:131:GLU:N	2.33	0.44
1:B:123:MET:O	1:B:124:ALA:C	2.56	0.44
1:B:164:GLN:O	1:B:167:ASP:HB2	2.18	0.44
1:B:329:MET:HA	1:B:329:MET:HE2	1.98	0.44
1:C:130:ILE:CG1	1:C:136:PHE:CD2	3.01	0.44
1:C:151:MET:HA	1:C:224:ILE:CG2	2.48	0.44
1:C:175:ILE:HD11	1:C:195:GLY:N	2.33	0.44
1:C:353:PHE:CD1	1:C:357:LEU:HD22	2.53	0.44
1:D:224:ILE:HD13	1:D:224:ILE:C	2.35	0.44
1:D:348:LEU:HD23	1:D:353:PHE:HA	1.99	0.44
1:F:211:ASP:OD1	2:F:401:CMP:H5'1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:278:GLN:HG2	1:F:279:LYS:N	2.27	0.44
1:F:331:ARG:HB3	1:F:332:PRO:CD	2.48	0.44
1:G:253:ILE:HG13	1:G:254:LEU:HD23	1.99	0.44
1:G:293:ILE:HG21	1:G:317:GLY:C	2.37	0.44
1:G:352:ARG:HA	1:G:355:ARG:HB2	1.99	0.44
1:G:357:LEU:CD1	1:G:357:LEU:N	2.74	0.44
1:H:165:GLN:CG	1:H:166:GLY:N	2.81	0.44
1:H:172:PHE:HB3	1:H:224:ILE:HD13	1.94	0.44
1:H:293:ILE:CG2	1:H:317:GLY:C	2.84	0.44
1:A:120:TYR:CD1	1:B:148:PHE:CB	2.97	0.44
1:A:152:PHE:HD2	1:A:152:PHE:H	1.65	0.44
1:A:294:LEU:O	1:A:318:PRO:HB3	2.18	0.44
1:A:317:GLY:O	1:A:320:ASP:HB2	2.18	0.44
1:B:175:ILE:HA	1:B:221:LEU:HD23	1.90	0.44
1:B:209:ARG:HD3	2:B:401:CMP:O2P	2.17	0.44
1:B:234:MET:HG3	1:B:238:LEU:CD1	2.42	0.44
1:B:263:LEU:O	1:B:266:ALA:CB	2.58	0.44
1:C:127:ALA:O	1:C:130:ILE:HG22	2.18	0.44
1:C:173:TYR:HB2	1:C:198:PHE:HE1	1.83	0.44
1:C:203:LEU:HD12	1:C:229:TYR:HD2	1.83	0.44
1:C:260:TRP:HA	1:C:263:LEU:HD23	1.99	0.44
1:D:121:LYS:O	1:D:123:MET:N	2.50	0.44
1:D:323:GLY:O	1:D:324:GLU:O	2.36	0.44
1:E:144:ARG:O	1:E:147:ILE:HG12	2.18	0.44
1:E:157:ILE:CB	1:E:218:ASN:OD1	2.66	0.44
1:E:163:ILE:O	1:E:213:VAL:N	2.39	0.44
1:F:269:LEU:CB	1:F:346:VAL:HG21	2.40	0.44
1:G:230:ARG:CZ	1:G:234:MET:HE1	2.48	0.44
1:H:138:HIS:HD1	1:H:138:HIS:H	1.65	0.44
1:H:173:TYR:O	1:H:197:SER:HA	2.17	0.44
1:H:283:GLN:OE1	1:H:302:GLN:HG2	2.18	0.44
1:H:360:CYS:O	1:H:364:LEU:HD23	2.18	0.44
1:A:183:TYR:HE1	1:A:188:TRP:HB2	1.79	0.43
1:A:325:ILE:O	1:A:328:LEU:N	2.51	0.43
1:B:294:LEU:N	1:B:294:LEU:CD1	2.52	0.43
1:C:325:ILE:HD11	1:C:334:ALA:HB3	1.99	0.43
1:D:126:LEU:CB	1:D:222:TRP:CZ2	2.91	0.43
1:D:226:ARG:HA	1:D:229:TYR:HB3	1.99	0.43
1:D:230:ARG:HG2	1:D:230:ARG:NH1	2.33	0.43
1:E:238:LEU:HD23	1:E:238:LEU:HA	1.71	0.43
1:E:252:SER:OG	1:E:253:ILE:N	2.41	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:293:ILE:HD12	1:E:343:LEU:HD11	1.99	0.43
1:E:324:GLU:OE2	1:E:371:TYR:HE2	2.00	0.43
1:F:114:LYS:CE	1:F:115:VAL:CG2	2.96	0.43
1:F:278:GLN:O	1:F:279:LYS:HB3	2.18	0.43
1:F:284:GLY:C	1:F:332:PRO:HB3	2.39	0.43
1:F:300:VAL:HG13	1:F:336:THR:O	2.18	0.43
1:F:348:LEU:CD2	1:F:356:VAL:CG2	2.96	0.43
1:F:362:ASP:HA	1:F:365:LYS:HZ3	1.83	0.43
1:G:180:MET:O	1:G:191:SER:HA	2.18	0.43
1:G:203:LEU:HD22	1:G:226:ARG:CG	2.48	0.43
1:G:283:GLN:N	1:G:336:THR:OG1	2.39	0.43
1:G:293:ILE:HG13	1:G:345:CYS:HG	1.75	0.43
1:H:158:ALA:HA	1:H:217:THR:O	2.16	0.43
1:H:173:TYR:HD1	1:H:223:GLY:HA3	1.83	0.43
1:A:322:PHE:CD2	1:A:337:VAL:HG21	2.53	0.43
1:B:115:VAL:HA	1:B:149:ASP:HB3	2.00	0.43
1:B:171:ASN:OD1	1:B:225:ASP:HA	2.18	0.43
1:B:262:ARG:O	1:B:265:VAL:CB	2.58	0.43
1:B:268:ALA:C	1:B:269:LEU:O	2.54	0.43
1:B:365:LYS:O	1:B:368:ILE:CG1	2.54	0.43
1:C:118:LYS:C	1:D:117:PRO:O	2.57	0.43
1:C:173:TYR:CB	1:C:198:PHE:HE1	2.31	0.43
1:D:175:ILE:HG22	1:D:221:LEU:CD2	2.48	0.43
1:D:204:ILE:HG22	1:D:205:TYR:CE2	2.51	0.43
1:D:299:ALA:N	1:D:338:VAL:O	2.42	0.43
1:D:361:SER:HB2	1:D:365:LYS:HZ1	1.82	0.43
1:E:152:PHE:CE2	1:E:223:GLY:CA	2.96	0.43
1:E:226:ARG:O	1:E:227:ASP:C	2.56	0.43
1:F:121:LYS:C	1:F:123:MET:N	2.70	0.43
1:F:203:LEU:CD1	1:F:229:TYR:CD2	2.96	0.43
1:H:291:PHE:CD1	1:H:347:LYS:NZ	2.86	0.43
1:A:111:TYR:C	1:D:115:VAL:HG23	2.38	0.43
1:A:173:TYR:HD1	1:A:223:GLY:CA	2.32	0.43
1:A:209:ARG:HA	2:A:401:CMP:O2P	2.18	0.43
1:A:325:ILE:CD1	1:A:334:ALA:HB2	2.48	0.43
1:C:111:TYR:O	1:C:112:VAL:HG12	2.13	0.43
1:C:163:ILE:HD11	1:C:198:PHE:CZ	2.53	0.43
1:C:226:ARG:O	1:C:227:ASP:C	2.57	0.43
1:C:262:ARG:HA	1:C:265:VAL:CG2	2.47	0.43
1:C:287:GLY:HA3	1:C:326:ALA:HB3	1.97	0.43
1:D:254:LEU:HB2	1:D:257:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:323:GLY:HA2	2:D:402:CMP:O2P	2.18	0.43
1:F:139:LEU:HD21	1:F:147:ILE:CD1	2.48	0.43
1:F:151:MET:HA	1:F:224:ILE:CG2	2.48	0.43
1:F:161:THR:HA	1:F:214:LYS:CD	2.34	0.43
1:F:247:PHE:CE2	1:F:292:ILE:HG21	2.53	0.43
1:F:352:ARG:O	1:F:353:PHE:C	2.56	0.43
1:G:204:ILE:HG22	1:G:205:TYR:CE2	2.52	0.43
1:H:135:LEU:CD1	1:H:136:PHE:N	2.78	0.43
1:H:253:ILE:C	1:H:255:GLU:N	2.71	0.43
1:A:112:VAL:O	1:A:231:ARG:NH2	2.51	0.43
1:A:135:LEU:CD1	1:A:136:PHE:CD2	3.02	0.43
1:A:226:ARG:O	1:A:227:ASP:O	2.37	0.43
1:B:139:LEU:CD2	1:B:147:ILE:CD1	2.95	0.43
1:B:153:PRO:CA	1:B:222:TRP:HZ3	2.27	0.43
1:B:276:ASP:OD2	1:B:341:GLY:N	2.39	0.43
1:C:280:ILE:HB	1:C:291:PHE:CE2	2.52	0.43
1:C:285:GLU:HB2	1:C:333:ARG:CG	2.48	0.43
1:D:201:LEU:O	1:D:205:TYR:N	2.49	0.43
1:E:249:SER:H	1:E:262:ARG:HH22	1.57	0.43
2:E:402:CMP:N3	2:E:402:CMP:H2'	2.32	0.43
1:F:152:PHE:CD2	1:F:152:PHE:N	2.83	0.43
1:G:120:TYR:CD2	1:G:120:TYR:O	2.72	0.43
1:G:129:ALA:CB	1:G:222:TRP:HE1	2.30	0.43
1:H:130:ILE:CD1	1:H:136:PHE:CE2	3.02	0.43
1:A:123:MET:C	1:A:125:ALA:N	2.71	0.43
1:B:115:VAL:O	1:B:115:VAL:CG2	2.65	0.43
1:C:148:PHE:CE1	1:D:120:TYR:CE1	3.06	0.43
1:C:293:ILE:CG2	1:C:317:GLY:C	2.84	0.43
1:C:322:PHE:CD1	1:C:322:PHE:N	2.85	0.43
1:D:285:GLU:HB3	1:D:286:PRO:CD	2.48	0.43
1:D:333:ARG:HA	2:D:402:CMP:O1P	2.19	0.43
1:D:371:TYR:OH	2:D:402:CMP:C8	2.66	0.43
1:E:178:GLY:N	1:E:194:GLU:HG3	2.29	0.43
1:G:253:ILE:H	1:G:253:ILE:HG12	1.49	0.43
1:G:283:GLN:HG2	1:G:284:GLY:N	2.32	0.43
1:G:365:LYS:O	1:G:368:ILE:N	2.42	0.43
1:H:204:ILE:HG21	1:H:205:TYR:CE2	2.54	0.43
1:H:258:ASP:O	1:H:262:ARG:CG	2.66	0.43
1:A:196:GLY:HA2	1:A:355:ARG:HH21	1.74	0.43
1:A:204:ILE:CG2	1:A:205:TYR:HD2	2.28	0.43
1:B:157:ILE:CA	1:B:218:ASN:OD1	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:234:MET:O	1:B:238:LEU:HD12	2.19	0.43
1:B:252:SER:O	1:B:253:ILE:HG12	2.16	0.43
1:B:289:GLU:HG2	1:B:333:ARG:HH22	1.83	0.43
1:B:317:GLY:O	1:B:320:ASP:HB2	2.19	0.43
1:C:162:VAL:HG23	1:C:213:VAL:O	2.18	0.43
1:E:113:ARG:O	1:H:112:VAL:CG1	2.67	0.43
1:E:160:GLU:O	1:E:214:LYS:HD2	2.19	0.43
1:E:200:GLU:HG2	1:E:201:LEU:N	2.33	0.43
1:E:224:ILE:HD12	1:E:224:ILE:H	1.78	0.43
1:E:269:LEU:CB	1:E:346:VAL:HG23	2.47	0.43
1:E:300:VAL:HG13	1:E:336:THR:O	2.17	0.43
1:E:324:GLU:HG2	1:E:325:ILE:N	2.34	0.43
1:F:183:TYR:CD1	1:F:188:TRP:CB	3.01	0.43
1:G:152:PHE:HD2	1:G:152:PHE:H	1.66	0.43
1:G:192:VAL:O	1:G:192:VAL:HG12	2.18	0.43
1:H:251:VAL:CG1	1:H:254:LEU:CD2	2.87	0.43
1:A:114:LYS:HB3	1:A:114:LYS:HE2	1.69	0.43
1:A:253:ILE:C	1:A:255:GLU:N	2.71	0.43
1:B:153:PRO:CA	1:B:222:TRP:CE3	2.98	0.43
1:B:220:LYS:O	1:B:221:LEU:HD23	2.19	0.43
1:B:316:LEU:HD12	1:B:316:LEU:HA	1.42	0.43
1:C:321:TYR:C	1:C:321:TYR:HD1	2.14	0.43
1:D:266:ALA:C	1:D:268:ALA:N	2.68	0.43
1:E:152:PHE:CE2	1:E:223:GLY:HA3	2.42	0.43
1:E:160:GLU:O	1:E:214:LYS:HA	2.18	0.43
1:E:165:GLN:CB	1:E:211:ASP:O	2.67	0.43
1:E:352:ARG:O	1:E:353:PHE:C	2.55	0.43
1:F:144:ARG:HG2	1:F:145:SER:H	1.82	0.43
1:F:184:VAL:O	1:F:185:ASN:HB2	2.19	0.43
1:F:324:GLU:HG2	1:F:325:ILE:N	2.33	0.43
1:F:329:MET:HA	1:F:329:MET:HE3	1.98	0.43
1:G:269:LEU:HB2	1:G:346:VAL:HG21	1.99	0.43
1:G:350:ARG:O	1:G:353:PHE:N	2.51	0.43
1:A:281:VAL:CG1	1:A:333:ARG:CG	2.92	0.43
1:B:118:LYS:NZ	1:B:151:MET:O	2.41	0.43
1:B:130:ILE:HD13	1:B:151:MET:CE	2.48	0.43
1:B:135:LEU:CD1	1:B:135:LEU:C	2.86	0.43
1:B:152:PHE:HE2	1:B:223:GLY:C	2.21	0.43
1:B:238:LEU:HD23	1:B:238:LEU:HA	1.76	0.43
1:B:283:GLN:HG2	1:B:284:GLY:N	2.33	0.43
1:C:241:ARG:NH2	1:C:263:LEU:HB3	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:280:ILE:HD11	1:C:337:VAL:CB	2.43	0.43
1:C:288:ASP:N	1:C:288:ASP:OD1	2.52	0.43
1:D:262:ARG:HA	1:D:265:VAL:HG23	2.00	0.43
1:E:158:ALA:HB2	1:E:218:ASN:N	2.34	0.43
1:E:201:LEU:H	1:E:201:LEU:HD12	1.83	0.43
1:F:204:ILE:CG2	1:F:238:LEU:HD11	2.49	0.43
1:F:289:GLU:HG2	1:F:291:PHE:CE1	2.53	0.43
1:H:174:VAL:HG23	1:H:196:GLY:O	2.19	0.43
1:H:282:VAL:O	1:H:283:GLN:C	2.56	0.43
1:H:303:ARG:CB	1:H:308:GLU:H	2.32	0.43
1:H:366:ARG:CG	1:H:367:ASN:N	2.81	0.43
1:A:203:LEU:CD1	1:A:229:TYR:HD2	2.32	0.43
1:B:123:MET:O	1:B:125:ALA:N	2.52	0.43
1:C:139:LEU:HD22	1:C:144:ARG:CA	2.49	0.43
1:C:148:PHE:CD1	1:D:120:TYR:HD1	2.34	0.43
1:D:154:VAL:HG13	1:D:155:SER:N	2.34	0.43
1:D:301:LEU:HD21	1:D:310:PHE:CG	2.52	0.43
1:D:328:LEU:H	1:D:328:LEU:HD12	1.83	0.43
1:E:173:TYR:HD1	1:E:223:GLY:CA	2.32	0.43
1:E:297:SER:O	1:E:340:ARG:N	2.46	0.43
1:F:204:ILE:CG2	1:F:205:TYR:CE2	3.02	0.43
1:F:229:TYR:HE1	1:F:233:LEU:HD13	1.78	0.43
1:F:342:PRO:O	1:F:342:PRO:CG	2.67	0.43
1:G:130:ILE:HD13	1:G:151:MET:CE	2.49	0.43
1:G:152:PHE:HD2	1:G:152:PHE:N	2.15	0.43
1:G:220:LYS:O	1:G:221:LEU:HD23	2.19	0.43
1:A:254:LEU:HB2	1:A:257:LEU:HD12	2.00	0.43
1:A:273:GLN:CB	1:A:343:LEU:O	2.57	0.43
1:A:321:TYR:C	1:A:321:TYR:HD1	2.18	0.43
1:B:309:GLU:CD	1:B:310:PHE:CD2	2.92	0.43
1:C:111:TYR:CE1	1:F:111:TYR:CD2	2.88	0.43
1:C:145:SER:O	1:C:146:ASP:C	2.56	0.43
1:C:273:GLN:C	1:C:274:PHE:CG	2.91	0.43
1:F:230:ARG:NH1	1:F:234:MET:HE1	2.33	0.43
1:F:266:ALA:C	1:F:268:ALA:N	2.69	0.43
1:G:300:VAL:HG13	1:G:335:ALA:HB1	1.99	0.43
1:H:172:PHE:HE1	1:H:200:GLU:HB3	1.84	0.43
1:H:260:TRP:CD1	2:H:401:CMP:C8	3.02	0.43
1:H:276:ASP:C	1:H:278:GLN:H	2.22	0.43
1:A:120:TYR:HE2	1:A:124:ALA:HB2	1.84	0.42
1:A:158:ALA:CB	1:A:216:LYS:O	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:175:ILE:HG21	1:A:180:MET:CG	2.49	0.42
1:A:232:ILE:HG23	1:A:233:LEU:HG	2.01	0.42
1:B:173:TYR:CB	1:B:198:PHE:HE1	2.32	0.42
1:B:178:GLY:HA3	1:B:219:VAL:HB	2.00	0.42
1:B:201:LEU:HB2	2:B:401:CMP:O3'	2.18	0.42
1:B:248:LEU:HD23	1:B:248:LEU:HA	1.72	0.42
1:B:251:VAL:C	1:B:252:SER:O	2.56	0.42
1:B:263:LEU:HD23	1:B:263:LEU:HA	1.61	0.42
1:C:139:LEU:HB3	1:C:143:GLU:HB2	2.00	0.42
1:C:182:VAL:HG23	1:C:190:THR:H	1.81	0.42
1:D:121:LYS:C	1:D:123:MET:N	2.69	0.42
1:E:110:SER:OG	1:H:115:VAL:CG2	2.67	0.42
1:E:131:GLU:OE1	1:E:132:LYS:N	2.51	0.42
1:E:273:GLN:NE2	1:E:273:GLN:H	1.88	0.42
1:F:347:LYS:HB3	1:F:347:LYS:HE3	1.16	0.42
1:F:368:ILE:O	1:F:371:TYR:HB2	2.19	0.42
1:G:112:VAL:HG12	1:G:231:ARG:NE	2.34	0.42
1:G:138:HIS:H	1:G:138:HIS:HD1	1.65	0.42
1:G:173:TYR:O	1:G:197:SER:HA	2.19	0.42
1:G:265:VAL:HG12	1:G:269:LEU:CG	2.48	0.42
1:H:170:ASP:H	1:H:209:ARG:CZ	2.32	0.42
1:A:120:TYR:HD2	1:A:121:LYS:CA	2.32	0.42
1:A:357:LEU:HB2	1:A:360:CYS:HB2	2.01	0.42
1:B:175:ILE:HD11	1:B:194:GLU:C	2.40	0.42
1:B:203:LEU:HD22	1:B:226:ARG:CB	2.47	0.42
1:C:113:ARG:CD	1:F:112:VAL:HB	2.27	0.42
1:C:157:ILE:C	1:C:157:ILE:CD1	2.83	0.42
1:D:165:GLN:CG	1:D:166:GLY:N	2.81	0.42
1:D:329:MET:HA	1:D:329:MET:HE2	1.99	0.42
1:D:362:ASP:O	1:D:365:LYS:N	2.52	0.42
1:E:203:LEU:HD22	1:E:226:ARG:CD	2.49	0.42
1:E:282:VAL:C	1:E:285:GLU:HG2	2.36	0.42
1:E:285:GLU:OE1	1:E:285:GLU:CA	2.66	0.42
1:E:308:GLU:O	1:E:309:GLU:HG2	2.19	0.42
1:E:325:ILE:CG1	2:E:402:CMP:P	3.07	0.42
1:E:329:MET:HB2	1:E:331:ARG:HG2	2.01	0.42
1:E:366:ARG:HH11	1:E:366:ARG:HD3	1.51	0.42
1:F:129:ALA:HB2	1:F:222:TRP:HE1	1.83	0.42
1:H:260:TRP:NE1	2:H:401:CMP:C8	2.81	0.42
1:A:113:ARG:HH22	1:D:114:LYS:C	2.18	0.42
1:A:115:VAL:CG2	1:D:112:VAL:N	2.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:204:ILE:CG2	1:A:238:LEU:HD11	2.49	0.42
1:A:226:ARG:HA	1:A:229:TYR:HB3	2.01	0.42
1:A:239:ARG:NH2	1:C:156:PHE:CD1	2.66	0.42
1:A:293:ILE:CG2	1:A:317:GLY:O	2.66	0.42
1:A:360:CYS:O	1:A:364:LEU:HD23	2.18	0.42
1:A:365:LYS:HA	1:A:368:ILE:HD11	2.01	0.42
1:B:260:TRP:CD1	2:B:401:CMP:N7	2.85	0.42
1:C:246:GLU:HA	1:C:249:SER:OG	2.18	0.42
1:C:264:THR:O	1:C:265:VAL:C	2.57	0.42
1:C:368:ILE:HG13	1:C:368:ILE:H	1.66	0.42
1:D:143:GLU:O	1:D:146:ASP:HB2	2.19	0.42
1:D:182:VAL:HG23	1:D:189:ALA:HB3	2.01	0.42
1:D:254:LEU:CD2	1:D:255:GLU:N	2.80	0.42
1:D:296:GLY:HA2	1:D:342:PRO:O	2.17	0.42
1:D:318:PRO:O	1:D:319:SER:CB	2.66	0.42
1:E:185:ASN:N	1:E:185:ASN:OD1	2.48	0.42
1:E:199:GLY:H	2:E:401:CMP:H4'	1.85	0.42
1:E:353:PHE:O	1:E:357:LEU:HB2	2.19	0.42
1:F:130:ILE:CD1	1:F:136:PHE:CE2	3.02	0.42
1:F:175:ILE:CD1	1:F:193:GLY:O	2.67	0.42
1:G:148:PHE:CG	1:H:120:TYR:HE1	2.35	0.42
1:H:116:ILE:HD13	1:H:116:ILE:HA	1.83	0.42
1:A:224:ILE:HD13	1:A:224:ILE:N	2.30	0.42
1:B:283:GLN:HG3	1:B:333:ARG:O	2.18	0.42
1:B:329:MET:HB2	1:B:331:ARG:HG2	2.00	0.42
1:C:291:PHE:CZ	1:C:347:LYS:NZ	2.86	0.42
1:D:269:LEU:CB	1:D:346:VAL:CG2	2.89	0.42
1:F:253:ILE:CG2	1:F:321:TYR:HE2	2.32	0.42
1:F:276:ASP:C	1:F:278:GLN:H	2.23	0.42
1:G:185:ASN:O	1:G:186:ASN:HB2	2.18	0.42
1:G:252:SER:OG	1:G:253:ILE:HG23	2.19	0.42
1:H:135:LEU:HD13	1:H:136:PHE:CE1	2.54	0.42
1:H:151:MET:HA	1:H:224:ILE:CG2	2.49	0.42
1:H:204:ILE:HG21	1:H:205:TYR:HE2	1.84	0.42
1:H:350:ARG:O	1:H:353:PHE:N	2.52	0.42
1:A:134:VAL:HG13	1:A:135:LEU:N	2.34	0.42
1:A:235:GLY:O	1:A:238:LEU:N	2.53	0.42
1:A:252:SER:O	1:A:253:ILE:C	2.58	0.42
1:A:272:VAL:CG2	1:A:273:GLN:NE2	2.83	0.42
1:A:278:GLN:O	1:A:279:LYS:HB3	2.18	0.42
1:B:213:VAL:C	1:B:214:LYS:HG2	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:253:ILE:C	1:D:255:GLU:N	2.73	0.42
1:D:259:LYS:O	1:D:260:TRP:C	2.56	0.42
1:D:263:LEU:O	1:D:266:ALA:CB	2.67	0.42
1:D:290:PHE:HB2	1:D:327:LEU:HD22	2.02	0.42
1:D:293:ILE:HD11	1:D:343:LEU:HD13	1.91	0.42
1:F:204:ILE:HD13	1:F:238:LEU:CD1	2.45	0.42
1:F:247:PHE:CE1	1:F:294:LEU:HB3	2.54	0.42
1:H:154:VAL:O	1:H:154:VAL:CG1	2.67	0.42
1:A:171:ASN:OD1	1:A:225:ASP:HA	2.20	0.42
1:A:309:GLU:HG3	1:A:310:PHE:O	2.19	0.42
1:A:325:ILE:HG13	2:A:402:CMP:O2P	2.18	0.42
1:A:329:MET:O	1:A:330:ASN:C	2.58	0.42
1:A:365:LYS:O	1:A:366:ARG:C	2.58	0.42
1:A:368:ILE:O	1:A:371:TYR:HB2	2.19	0.42
1:B:274:PHE:CE2	1:B:280:ILE:HG22	2.55	0.42
1:D:127:ALA:O	1:D:128:LYS:C	2.56	0.42
1:D:262:ARG:HG3	1:D:263:LEU:N	2.35	0.42
1:D:315:ARG:NH1	1:D:340:ARG:HH22	2.17	0.42
1:E:148:PHE:CE1	1:F:120:TYR:HE1	2.38	0.42
1:E:200:GLU:HG2	1:E:201:LEU:HG	2.02	0.42
1:F:239:ARG:HH11	1:F:239:ARG:HD2	1.63	0.42
1:F:266:ALA:HA	1:F:269:LEU:CD1	2.46	0.42
1:G:163:ILE:O	1:G:212:THR:HG22	2.19	0.42
1:G:184:VAL:O	1:G:185:ASN:HB2	2.19	0.42
1:G:248:LEU:C	1:G:262:ARG:NH2	2.73	0.42
1:G:260:TRP:NE1	2:G:401:CMP:C2'	2.76	0.42
1:G:263:LEU:O	1:G:266:ALA:N	2.53	0.42
1:H:139:LEU:CB	1:H:143:GLU:HB2	2.50	0.42
1:A:144:ARG:NH1	1:A:144:ARG:CB	2.80	0.42
1:A:263:LEU:O	1:A:266:ALA:N	2.53	0.42
1:A:302:GLN:O	1:A:310:PHE:HA	2.19	0.42
1:A:348:LEU:CD2	1:A:356:VAL:HG21	2.47	0.42
1:B:139:LEU:HB3	1:B:143:GLU:CB	2.49	0.42
1:B:154:VAL:O	1:B:154:VAL:CG1	2.62	0.42
1:B:199:GLY:H	2:B:401:CMP:H4'	1.84	0.42
1:C:158:ALA:HA	1:C:215:ALA:HB3	2.01	0.42
1:C:243:MET:HE1	1:E:157:ILE:O	2.20	0.42
1:C:260:TRP:NE1	2:C:401:CMP:C2'	2.80	0.42
1:D:342:PRO:O	1:D:342:PRO:HG2	2.20	0.42
1:D:349:ASP:C	1:D:349:ASP:OD1	2.58	0.42
1:E:130:ILE:CG2	1:E:131:GLU:N	2.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:135:LEU:HD13	1:E:136:PHE:CG	2.55	0.42
1:E:147:ILE:HD13	1:E:147:ILE:HG21	1.40	0.42
1:E:253:ILE:HG13	1:E:254:LEU:N	2.33	0.42
1:E:327:LEU:HD23	1:E:353:PHE:CZ	2.55	0.42
1:F:116:ILE:O	1:F:118:LYS:HG3	2.19	0.42
1:G:172:PHE:O	1:G:224:ILE:CD1	2.67	0.42
1:G:188:TRP:CH2	1:G:190:THR:CA	3.03	0.42
1:H:295:GLU:O	1:H:344:LYS:N	2.53	0.42
1:A:153:PRO:CA	1:A:222:TRP:CE3	3.01	0.42
1:A:203:LEU:CD1	1:A:229:TYR:CD2	3.00	0.42
1:A:247:PHE:CD2	1:A:247:PHE:O	2.73	0.42
1:A:363:ILE:H	1:A:363:ILE:HG13	1.51	0.42
1:B:134:VAL:O	1:B:134:VAL:CG2	2.64	0.42
1:B:211:ASP:OD2	2:B:401:CMP:N3	2.52	0.42
1:B:322:PHE:CE2	1:B:337:VAL:HG21	2.54	0.42
1:B:327:LEU:HD23	1:B:353:PHE:CE1	2.55	0.42
1:C:110:SER:CB	1:F:114:LYS:HZ3	2.32	0.42
1:D:135:LEU:HD13	1:D:136:PHE:CG	2.55	0.42
1:D:242:LYS:HD2	1:D:242:LYS:HA	1.66	0.42
1:D:260:TRP:CA	1:D:263:LEU:HD12	2.44	0.42
1:E:136:PHE:O	1:E:139:LEU:HD11	2.20	0.42
1:E:171:ASN:H	1:E:209:ARG:HH22	1.67	0.42
1:F:111:TYR:CD2	1:F:112:VAL:N	2.87	0.42
1:F:162:VAL:HG22	1:F:213:VAL:O	2.19	0.42
1:F:173:TYR:HD1	1:F:223:GLY:CA	2.33	0.42
1:F:200:GLU:HG2	1:F:201:LEU:N	2.35	0.42
1:F:203:LEU:HD22	1:F:226:ARG:HD3	2.01	0.42
1:F:253:ILE:HG13	1:F:254:LEU:HG	2.02	0.42
1:F:321:TYR:HD1	1:F:322:PHE:N	2.16	0.42
1:G:183:TYR:CD1	1:G:188:TRP:CB	3.03	0.42
1:G:244:TYR:O	1:G:245:GLU:C	2.58	0.42
1:G:266:ALA:O	1:G:269:LEU:N	2.51	0.42
1:H:116:ILE:HA	1:H:117:PRO:HD3	1.77	0.42
1:H:174:VAL:O	1:H:174:VAL:CG1	2.67	0.42
1:B:116:ILE:HA	1:B:117:PRO:HD3	1.78	0.42
1:B:126:LEU:O	1:B:129:ALA:HB3	2.20	0.42
1:C:245:GLU:OE1	1:C:246:GLU:N	2.53	0.42
1:D:163:ILE:CD1	1:D:213:VAL:HB	2.39	0.42
1:D:175:ILE:HG21	1:D:180:MET:CG	2.49	0.42
1:D:183:TYR:HA	1:D:188:TRP:HA	2.02	0.42
1:D:368:ILE:HD13	1:D:368:ILE:HG21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:111:TYR:CD2	1:H:111:TYR:OH	2.73	0.42
1:E:133:ASN:ND2	1:E:174:VAL:HG21	2.35	0.42
1:E:163:ILE:HD11	1:E:198:PHE:CE2	2.54	0.42
1:E:329:MET:HA	1:E:329:MET:HE2	1.99	0.42
1:E:348:LEU:HD23	1:E:353:PHE:HA	2.01	0.42
1:F:131:GLU:C	1:F:133:ASN:H	2.23	0.42
1:F:276:ASP:C	1:F:278:GLN:N	2.72	0.42
1:F:329:MET:CB	1:F:331:ARG:CG	2.91	0.42
1:H:119:ASP:O	1:H:120:TYR:C	2.58	0.42
1:H:163:ILE:HD12	1:H:213:VAL:HB	2.02	0.42
1:H:211:ASP:OD1	1:H:211:ASP:N	2.52	0.42
1:H:212:THR:C	1:H:213:VAL:HG23	2.40	0.42
1:H:294:LEU:CG	1:H:295:GLU:H	2.32	0.42
1:A:204:ILE:CG2	1:A:205:TYR:CE2	3.03	0.42
1:A:253:ILE:HG23	1:A:321:TYR:HE2	1.85	0.42
1:B:371:TYR:CZ	2:B:402:CMP:C8	3.00	0.42
1:C:278:GLN:C	1:C:338:VAL:HG22	2.40	0.42
1:F:114:LYS:CE	1:F:115:VAL:HG22	2.49	0.42
1:F:133:ASN:O	1:F:134:VAL:C	2.58	0.42
1:F:135:LEU:CD1	1:F:136:PHE:N	2.82	0.42
1:F:201:LEU:H	1:F:201:LEU:HD12	1.85	0.42
1:G:149:ASP:OD1	1:H:120:TYR:HB3	2.17	0.42
1:H:120:TYR:CD2	1:H:121:LYS:N	2.87	0.42
1:H:162:VAL:HG21	1:H:213:VAL:HG12	2.02	0.42
1:H:183:TYR:CD1	1:H:188:TRP:CB	3.02	0.42
1:H:188:TRP:CH2	1:H:190:THR:C	2.93	0.42
1:H:253:ILE:H	1:H:253:ILE:HG12	1.46	0.42
1:A:247:PHE:CZ	1:A:294:LEU:HA	2.53	0.41
1:B:130:ILE:CD1	1:B:151:MET:HE3	2.47	0.41
1:B:158:ALA:HB2	1:B:217:THR:CA	2.45	0.41
1:B:175:ILE:CG2	1:B:221:LEU:HD21	2.44	0.41
1:B:301:LEU:N	1:B:336:THR:O	2.51	0.41
1:C:135:LEU:HD13	1:C:136:PHE:CE1	2.55	0.41
1:C:172:PHE:CB	1:C:224:ILE:HD11	2.33	0.41
1:C:188:TRP:CH2	1:C:190:THR:C	2.94	0.41
1:C:254:LEU:O	1:C:257:LEU:HG	2.20	0.41
1:E:312:GLU:C	1:E:312:GLU:OE1	2.58	0.41
1:E:342:PRO:HG2	1:E:342:PRO:O	2.19	0.41
1:E:366:ARG:O	1:E:369:GLN:CB	2.68	0.41
1:F:123:MET:O	1:F:124:ALA:C	2.56	0.41
1:F:135:LEU:HD13	1:F:136:PHE:CD1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:159:GLY:C	1:H:243:MET:HE2	2.40	0.41
1:F:253:ILE:H	1:F:253:ILE:HG12	1.52	0.41
1:F:294:LEU:C	1:F:295:GLU:HG2	2.39	0.41
1:H:124:ALA:O	1:H:127:ALA:HB3	2.20	0.41
1:H:138:HIS:O	1:H:139:LEU:C	2.55	0.41
1:H:165:GLN:CA	1:H:211:ASP:O	2.67	0.41
1:H:174:VAL:CG1	1:H:222:TRP:HB2	2.50	0.41
1:H:273:GLN:C	1:H:274:PHE:CG	2.93	0.41
1:H:285:GLU:HB3	1:H:286:PRO:HD2	2.01	0.41
1:H:294:LEU:CG	1:H:295:GLU:N	2.82	0.41
1:H:321:TYR:CD1	1:H:321:TYR:O	2.73	0.41
1:A:158:ALA:HA	1:A:215:ALA:HB1	2.02	0.41
1:A:266:ALA:C	1:A:268:ALA:N	2.71	0.41
1:A:269:LEU:CG	1:A:346:VAL:HG21	2.49	0.41
1:A:352:ARG:O	1:A:355:ARG:HB2	2.21	0.41
1:B:116:ILE:HA	1:B:116:ILE:HD13	1.63	0.41
1:B:130:ILE:CD1	1:B:151:MET:HE2	2.50	0.41
1:B:158:ALA:HA	1:B:215:ALA:CB	2.50	0.41
1:B:201:LEU:HD13	2:B:401:CMP:C2'	2.50	0.41
1:B:263:LEU:H	1:B:263:LEU:HG	1.61	0.41
1:B:276:ASP:C	1:B:278:GLN:H	2.24	0.41
1:C:282:VAL:O	1:C:283:GLN:C	2.58	0.41
1:D:144:ARG:CZ	1:D:144:ARG:CB	2.98	0.41
1:D:251:VAL:HG11	1:D:292:ILE:CD1	2.50	0.41
1:D:263:LEU:HA	1:D:263:LEU:HD23	1.74	0.41
1:D:269:LEU:CD2	1:D:346:VAL:CG2	2.86	0.41
1:D:362:ASP:HA	1:D:365:LYS:NZ	2.35	0.41
1:F:129:ALA:CB	1:F:222:TRP:CD1	3.03	0.41
1:F:325:ILE:CG1	1:F:326:ALA:N	2.79	0.41
1:G:259:LYS:O	1:G:260:TRP:C	2.59	0.41
1:G:260:TRP:CG	2:G:401:CMP:N7	2.88	0.41
1:G:272:VAL:HG22	1:G:273:GLN:N	2.34	0.41
1:G:273:GLN:HB2	1:G:343:LEU:O	2.19	0.41
1:G:283:GLN:CB	1:G:336:THR:OG1	2.67	0.41
1:H:130:ILE:HG13	1:H:136:PHE:CD2	2.55	0.41
1:H:153:PRO:CA	1:H:222:TRP:HZ3	2.32	0.41
1:A:144:ARG:O	1:A:145:SER:C	2.54	0.41
1:B:112:VAL:HG12	1:B:231:ARG:CZ	2.48	0.41
1:B:142:ASN:O	1:B:143:GLU:C	2.56	0.41
1:B:269:LEU:HD23	1:B:348:LEU:HD13	2.02	0.41
1:C:175:ILE:CA	1:C:221:LEU:CD2	2.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:130:ILE:CG2	1:D:131:GLU:N	2.82	0.41
1:D:230:ARG:CB	1:D:234:MET:HE1	2.50	0.41
1:E:118:LYS:O	1:E:123:MET:HE2	2.20	0.41
1:E:119:ASP:O	1:E:120:TYR:C	2.59	0.41
1:E:160:GLU:C	1:E:214:LYS:HE3	2.41	0.41
1:E:249:SER:HA	1:E:262:ARG:NH2	2.35	0.41
1:E:260:TRP:NE1	2:E:401:CMP:C2'	2.79	0.41
1:E:262:ARG:HA	1:E:265:VAL:HG23	2.02	0.41
1:F:164:GLN:CA	1:F:212:THR:HG22	2.40	0.41
1:F:265:VAL:HG12	1:F:269:LEU:HD11	2.03	0.41
1:H:126:LEU:HD12	1:H:126:LEU:C	2.38	0.41
1:H:147:ILE:HD13	1:H:147:ILE:HG21	1.48	0.41
1:H:226:ARG:O	1:H:227:ASP:C	2.58	0.41
1:H:343:LEU:HG	1:H:344:LYS:N	2.34	0.41
1:H:365:LYS:O	1:H:366:ARG:C	2.57	0.41
1:A:156:PHE:HD1	1:A:156:PHE:HA	1.71	0.41
1:A:156:PHE:HE2	1:A:162:VAL:HG12	1.72	0.41
1:A:287:GLY:HA3	1:A:326:ALA:HB1	2.00	0.41
1:A:293:ILE:CG1	1:A:345:CYS:SG	2.96	0.41
1:A:362:ASP:CA	1:A:365:LYS:HZ2	2.33	0.41
1:C:262:ARG:HA	1:C:265:VAL:HG21	2.02	0.41
1:D:133:ASN:O	1:D:135:LEU:HD12	2.21	0.41
1:E:133:ASN:OD1	1:E:133:ASN:C	2.59	0.41
1:E:183:TYR:CD1	1:E:188:TRP:HA	2.51	0.41
1:E:221:LEU:HD23	1:E:221:LEU:HA	1.34	0.41
1:E:353:PHE:CD1	1:E:357:LEU:HD22	2.54	0.41
1:F:112:VAL:CG1	1:F:113:ARG:N	2.65	0.41
1:F:211:ASP:OD1	2:F:401:CMP:O1P	2.39	0.41
1:G:210:ALA:C	1:G:211:ASP:OD1	2.59	0.41
1:G:247:PHE:C	1:G:247:PHE:HD2	2.21	0.41
1:G:324:GLU:HB2	1:G:364:LEU:HD11	2.01	0.41
1:G:362:ASP:HA	1:G:365:LYS:HZ2	1.84	0.41
1:A:113:ARG:HE	1:D:113:ARG:CA	2.32	0.41
1:A:316:LEU:HD12	1:A:316:LEU:O	2.19	0.41
1:A:347:LYS:HE3	1:A:347:LYS:HB3	1.20	0.41
1:B:173:TYR:HB2	1:B:198:PHE:HE1	1.86	0.41
1:B:285:GLU:O	1:B:332:PRO:HA	2.20	0.41
1:B:322:PHE:N	1:B:322:PHE:HD1	2.18	0.41
1:C:120:TYR:O	1:C:123:MET:HB3	2.20	0.41
1:D:183:TYR:HD1	1:D:188:TRP:CA	2.30	0.41
1:D:297:SER:O	1:D:340:ARG:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:322:PHE:CD2	1:D:322:PHE:C	2.93	0.41
1:E:116:ILE:O	1:E:118:LYS:HG3	2.21	0.41
1:E:229:TYR:O	1:E:230:ARG:C	2.58	0.41
1:E:312:GLU:OE1	1:E:313:VAL:N	2.54	0.41
1:F:157:ILE:HG13	1:F:157:ILE:H	1.81	0.41
1:F:260:TRP:NE1	2:F:401:CMP:C4	2.88	0.41
1:F:289:GLU:CG	1:F:347:LYS:HZ3	2.07	0.41
1:G:341:GLY:HA3	1:G:342:PRO:HD2	1.70	0.41
1:H:283:GLN:HG2	1:H:333:ARG:O	2.20	0.41
1:A:263:LEU:HD23	1:A:263:LEU:HA	1.74	0.41
1:A:321:TYR:HD1	1:A:322:PHE:N	2.18	0.41
1:B:261:GLU:OE2	1:B:359:PRO:HG2	2.20	0.41
1:C:197:SER:O	1:C:198:PHE:HB3	2.21	0.41
1:C:290:PHE:CE2	1:C:357:LEU:HD21	2.56	0.41
1:C:362:ASP:O	1:C:363:ILE:C	2.58	0.41
1:D:153:PRO:HB3	1:D:222:TRP:CH2	2.49	0.41
1:D:157:ILE:CA	1:D:218:ASN:OD1	2.68	0.41
1:D:163:ILE:HD12	1:D:213:VAL:CB	2.39	0.41
1:D:200:GLU:CG	1:D:201:LEU:N	2.51	0.41
1:D:263:LEU:O	1:D:267:ASP:N	2.43	0.41
1:D:269:LEU:CG	1:D:346:VAL:HG21	2.50	0.41
1:E:260:TRP:NE1	2:E:401:CMP:N9	2.68	0.41
1:E:362:ASP:O	1:E:365:LYS:N	2.50	0.41
1:F:316:LEU:HD22	1:F:320:ASP:HB3	2.02	0.41
1:F:325:ILE:HD13	1:F:334:ALA:HB3	2.03	0.41
1:H:163:ILE:HD11	1:H:198:PHE:CE2	2.55	0.41
1:H:188:TRP:HZ3	1:H:190:THR:C	2.22	0.41
1:B:230:ARG:HG2	1:B:230:ARG:HH11	1.86	0.41
1:B:289:GLU:HG3	1:B:347:LYS:HZ3	1.86	0.41
1:B:313:VAL:CG2	2:B:402:CMP:HN61	2.22	0.41
1:C:162:VAL:CG2	1:C:163:ILE:HG13	2.49	0.41
1:C:183:TYR:CD1	1:C:188:TRP:CB	3.04	0.41
1:C:253:ILE:HG13	1:C:254:LEU:CG	2.50	0.41
1:C:290:PHE:HB2	1:C:327:LEU:HD21	2.02	0.41
1:D:154:VAL:HG12	1:D:154:VAL:O	2.20	0.41
1:D:201:LEU:HB2	2:D:401:CMP:O3'	2.19	0.41
1:D:313:VAL:HG21	2:D:402:CMP:N6	2.36	0.41
1:E:120:TYR:O	1:E:121:LYS:C	2.56	0.41
1:E:316:LEU:HD22	1:E:320:ASP:HB3	2.03	0.41
1:E:347:LYS:O	1:E:348:LEU:CD1	2.65	0.41
1:F:147:ILE:HD13	1:F:147:ILE:HG21	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:329:MET:HB3	1:F:331:ARG:CG	2.50	0.41
1:F:343:LEU:HD12	1:F:343:LEU:HA	1.73	0.41
1:G:202:ALA:HB1	1:G:207:THR:O	2.20	0.41
1:H:158:ALA:CB	1:H:217:THR:C	2.74	0.41
1:H:283:GLN:HG3	1:H:333:ARG:O	2.21	0.41
1:H:300:VAL:H	1:H:312:GLU:HB2	1.84	0.41
1:H:357:LEU:HD12	1:H:357:LEU:HA	1.49	0.41
1:A:113:ARG:CZ	1:D:114:LYS:CA	2.99	0.41
1:A:209:ARG:HD3	2:A:401:CMP:O1P	2.21	0.41
1:B:266:ALA:O	1:B:268:ALA:N	2.54	0.41
1:B:325:ILE:HG12	2:B:402:CMP:P	2.60	0.41
1:B:362:ASP:HA	1:B:365:LYS:HZ3	1.84	0.41
1:C:299:ALA:HA	1:C:314:GLY:O	2.21	0.41
1:D:269:LEU:CB	1:D:346:VAL:HG21	2.47	0.41
1:D:325:ILE:HD11	1:D:334:ALA:H	1.86	0.41
1:E:352:ARG:O	1:E:355:ARG:HB2	2.20	0.41
1:F:158:ALA:HB2	1:F:218:ASN:N	2.35	0.41
1:F:244:TYR:O	1:F:245:GLU:C	2.59	0.41
1:F:263:LEU:O	1:F:266:ALA:CB	2.56	0.41
1:G:123:MET:O	1:G:124:ALA:C	2.59	0.41
1:G:162:VAL:HG23	1:G:163:ILE:H	1.84	0.41
1:G:176:ASP:O	1:G:194:GLU:HG2	2.20	0.41
1:G:235:GLY:O	1:G:238:LEU:N	2.54	0.41
1:H:304:ARG:N	1:H:308:GLU:CB	2.75	0.41
1:A:116:ILE:HA	1:A:117:PRO:HD3	1.69	0.41
1:A:120:TYR:HE2	1:A:124:ALA:CB	2.33	0.41
1:A:144:ARG:CB	1:A:144:ARG:CZ	2.98	0.41
1:A:147:ILE:HD13	1:A:147:ILE:HG21	1.74	0.41
1:A:183:TYR:CD1	1:A:188:TRP:CA	3.03	0.41
1:A:260:TRP:HE1	2:A:401:CMP:C2'	2.31	0.41
1:A:350:ARG:CB	1:A:351:PRO:HD3	2.37	0.41
1:A:353:PHE:O	1:A:357:LEU:CD1	2.69	0.41
1:B:121:LYS:O	1:B:122:THR:C	2.59	0.41
1:B:173:TYR:CD2	1:B:198:PHE:HE1	2.39	0.41
1:B:203:LEU:CD1	1:B:226:ARG:HB3	2.43	0.41
1:B:230:ARG:HA	1:B:234:MET:HB2	2.03	0.41
1:B:239:ARG:O	1:B:243:MET:HB3	2.21	0.41
1:B:295:GLU:HA	1:B:318:PRO:HG3	2.02	0.41
1:C:110:SER:O	1:F:114:LYS:CD	2.64	0.41
1:C:132:LYS:HG3	1:C:133:ASN:N	2.36	0.41
1:C:260:TRP:NE1	2:C:401:CMP:C8	2.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:272:VAL:O	1:C:345:CYS:N	2.51	0.41
1:C:342:PRO:HG2	1:C:342:PRO:O	2.21	0.41
1:D:147:ILE:O	1:D:148:PHE:C	2.57	0.41
1:D:262:ARG:HA	1:D:265:VAL:HG21	2.03	0.41
1:D:343:LEU:HG	1:D:344:LYS:N	2.35	0.41
1:E:113:ARG:N	1:H:112:VAL:HG11	2.36	0.41
1:E:133:ASN:HD22	1:E:174:VAL:HG21	1.86	0.41
1:E:155:SER:HA	1:E:220:LYS:HA	2.03	0.41
1:E:174:VAL:HG13	1:E:222:TRP:HB2	2.02	0.41
1:E:181:ASP:OD1	1:E:191:SER:HB3	2.21	0.41
1:E:247:PHE:CE1	1:E:294:LEU:CA	2.97	0.41
1:E:261:GLU:OE2	1:E:359:PRO:HG2	2.21	0.41
1:E:266:ALA:C	1:E:268:ALA:N	2.72	0.41
1:E:321:TYR:HD1	1:E:322:PHE:N	2.18	0.41
1:G:173:TYR:HB2	1:G:198:PHE:CZ	2.52	0.41
1:G:173:TYR:HD1	1:G:223:GLY:CA	2.34	0.41
1:G:265:VAL:C	1:G:269:LEU:CG	2.89	0.41
1:G:343:LEU:HA	1:G:343:LEU:HD12	1.71	0.41
1:G:362:ASP:O	1:G:365:LYS:N	2.53	0.41
1:H:253:ILE:CD1	1:H:254:LEU:HD23	2.51	0.41
1:H:284:GLY:HA2	1:H:332:PRO:CB	2.51	0.41
1:H:328:LEU:HD12	1:H:328:LEU:N	2.35	0.41
1:H:362:ASP:HA	1:H:365:LYS:HZ2	1.85	0.41
1:A:117:PRO:HG2	1:D:110:SER:HB2	2.00	0.41
1:B:126:LEU:HD11	1:B:130:ILE:HD13	2.03	0.41
1:B:175:ILE:CG1	1:B:193:GLY:O	2.69	0.41
1:C:156:PHE:CD2	1:C:162:VAL:HG13	2.52	0.41
1:C:170:ASP:H	1:C:209:ARG:CZ	2.32	0.41
1:C:175:ILE:HG21	1:C:180:MET:HG3	2.03	0.41
1:C:234:MET:O	1:C:238:LEU:CD1	2.61	0.41
1:D:175:ILE:HD12	1:D:175:ILE:C	2.25	0.41
1:D:270:GLU:HA	1:D:271:PRO:HD3	1.57	0.41
1:E:139:LEU:HD22	1:E:144:ARG:CA	2.51	0.41
1:E:201:LEU:HD12	2:E:401:CMP:O2'	2.20	0.41
1:F:181:ASP:OD1	1:F:191:SER:HB3	2.21	0.41
1:F:247:PHE:CE1	1:F:294:LEU:CA	2.94	0.41
1:F:270:GLU:HB2	1:F:271:PRO:CD	2.50	0.41
1:F:365:LYS:O	1:F:368:ILE:CG1	2.58	0.41
1:G:174:VAL:HG13	1:G:174:VAL:O	2.20	0.41
1:G:365:LYS:HA	1:G:368:ILE:CD1	2.51	0.41
1:H:130:ILE:HG23	1:H:131:GLU:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:162:VAL:CG2	1:H:213:VAL:HG12	2.51	0.41
1:H:342:PRO:HG2	1:H:342:PRO:O	2.21	0.41
1:B:147:ILE:HD13	1:B:147:ILE:HG21	1.70	0.40
1:B:280:ILE:CG1	1:B:337:VAL:HB	2.51	0.40
1:D:301:LEU:CD2	1:D:310:PHE:CB	2.81	0.40
1:E:126:LEU:O	1:E:127:ALA:C	2.57	0.40
1:F:175:ILE:HG22	1:F:221:LEU:CD2	2.49	0.40
1:F:353:PHE:O	1:F:357:LEU:HB2	2.21	0.40
1:F:365:LYS:O	1:F:368:ILE:N	2.38	0.40
1:G:245:GLU:OE1	1:G:246:GLU:N	2.54	0.40
1:G:301:LEU:HD13	1:G:310:PHE:CG	2.55	0.40
1:H:122:THR:C	1:H:125:ALA:HB3	2.39	0.40
1:H:171:ASN:OD1	1:H:225:ASP:HA	2.21	0.40
1:H:265:VAL:O	1:H:266:ALA:C	2.58	0.40
1:A:280:ILE:CD1	1:A:337:VAL:HB	2.46	0.40
1:A:282:VAL:HA	1:A:336:THR:HG23	2.02	0.40
1:B:252:SER:O	1:B:254:LEU:N	2.54	0.40
1:C:111:TYR:HD1	1:F:111:TYR:CE2	2.36	0.40
1:C:130:ILE:HD13	1:C:151:MET:CE	2.51	0.40
1:C:157:ILE:CA	1:C:218:ASN:OD1	2.68	0.40
1:C:270:GLU:HB3	1:C:271:PRO:CD	2.51	0.40
1:C:271:PRO:O	1:C:272:VAL:HB	2.20	0.40
1:C:279:LYS:HD2	1:C:336:THR:CG2	2.50	0.40
1:D:128:LYS:C	1:D:130:ILE:N	2.74	0.40
1:D:180:MET:HB2	1:D:192:VAL:CG1	2.51	0.40
1:E:129:ALA:CB	1:E:222:TRP:NE1	2.84	0.40
1:E:132:LYS:HG3	1:E:133:ASN:N	2.36	0.40
1:E:230:ARG:O	1:E:234:MET:HB2	2.20	0.40
1:E:268:ALA:O	1:E:352:ARG:NH1	2.54	0.40
1:E:282:VAL:HB	1:E:285:GLU:CG	2.51	0.40
1:E:365:LYS:O	1:E:368:ILE:N	2.40	0.40
1:G:197:SER:O	1:G:198:PHE:HB3	2.22	0.40
1:H:181:ASP:OD1	1:H:191:SER:HB3	2.21	0.40
1:H:198:PHE:HD1	1:H:198:PHE:N	2.17	0.40
1:H:266:ALA:C	1:H:268:ALA:N	2.71	0.40
1:A:153:PRO:N	1:A:222:TRP:CZ3	2.90	0.40
1:A:204:ILE:HG23	1:A:238:LEU:HD11	2.03	0.40
1:A:241:ARG:O	1:A:245:GLU:N	2.54	0.40
1:B:116:ILE:HD12	1:B:116:ILE:HG23	1.86	0.40
1:B:139:LEU:N	1:B:139:LEU:CD1	2.62	0.40
1:B:204:ILE:HG12	1:B:234:MET:SD	2.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:274:PHE:N	1:B:343:LEU:O	2.41	0.40
1:B:316:LEU:HD13	1:B:316:LEU:N	2.34	0.40
1:B:371:TYR:CD1	2:B:402:CMP:C5	3.08	0.40
1:C:247:PHE:CE1	1:C:294:LEU:CA	2.91	0.40
1:D:253:ILE:CD1	1:D:254:LEU:HD13	2.50	0.40
1:D:254:LEU:HD22	1:D:254:LEU:C	2.41	0.40
1:D:266:ALA:O	1:D:268:ALA:N	2.54	0.40
1:D:325:ILE:HG13	2:D:402:CMP:O1P	2.21	0.40
1:E:271:PRO:O	1:E:272:VAL:HB	2.21	0.40
1:F:174:VAL:O	1:F:222:TRP:HB2	2.21	0.40
1:F:182:VAL:HG23	1:F:189:ALA:HB3	2.04	0.40
1:F:230:ARG:CB	1:F:234:MET:CE	2.96	0.40
1:F:298:ALA:N	1:F:316:LEU:O	2.40	0.40
1:G:138:HIS:O	1:G:139:LEU:C	2.57	0.40
1:G:230:ARG:HA	1:G:234:MET:HB2	2.02	0.40
1:G:342:PRO:O	1:G:342:PRO:CG	2.70	0.40
1:A:325:ILE:CG1	1:A:326:ALA:N	2.80	0.40
1:B:130:ILE:HD12	1:B:130:ILE:HA	1.80	0.40
1:B:301:LEU:HD13	1:B:310:PHE:CB	2.37	0.40
1:C:173:TYR:HD1	1:C:223:GLY:CA	2.33	0.40
1:C:259:LYS:O	1:C:261:GLU:N	2.54	0.40
1:C:266:ALA:C	1:C:268:ALA:N	2.72	0.40
1:C:352:ARG:O	1:C:353:PHE:C	2.58	0.40
1:C:352:ARG:O	1:C:355:ARG:HB2	2.21	0.40
1:D:175:ILE:H	1:D:175:ILE:HG13	1.59	0.40
1:D:260:TRP:CG	2:D:401:CMP:N7	2.89	0.40
1:E:160:GLU:H	1:E:215:ALA:HB3	1.86	0.40
1:E:248:LEU:HB2	1:E:262:ARG:HH21	1.84	0.40
1:H:157:ILE:HB	1:H:218:ASN:OD1	2.21	0.40
1:A:162:VAL:HG23	1:A:163:ILE:H	1.86	0.40
1:B:139:LEU:HD22	1:B:144:ARG:HA	2.04	0.40
1:C:172:PHE:HE1	1:C:200:GLU:HG3	1.86	0.40
1:D:238:LEU:HD23	1:D:238:LEU:HA	1.96	0.40
1:E:116:ILE:HG21	1:E:118:LYS:HZ2	1.83	0.40
1:E:165:GLN:HG3	1:E:211:ASP:N	2.36	0.40
1:E:201:LEU:O	1:E:204:ILE:N	2.55	0.40
1:E:263:LEU:O	1:E:266:ALA:N	2.53	0.40
1:E:347:LYS:HB3	1:E:347:LYS:HE3	1.14	0.40
1:F:121:LYS:O	1:F:124:ALA:N	2.54	0.40
1:F:290:PHE:HB2	1:F:327:LEU:HD22	2.03	0.40
1:G:174:VAL:HG23	1:G:196:GLY:O	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:175:ILE:HD12	1:G:175:ILE:C	2.24	0.40
1:H:242:LYS:HD2	1:H:242:LYS:HA	1.60	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	266/269 (99%)	225 (85%)	32 (12%)	9 (3%)	3	30
1	B	266/269 (99%)	218 (82%)	40 (15%)	8 (3%)	4	32
1	C	266/269 (99%)	221 (83%)	34 (13%)	11 (4%)	3	26
1	D	264/269 (98%)	226 (86%)	31 (12%)	7 (3%)	5	34
1	E	266/269 (99%)	219 (82%)	41 (15%)	6 (2%)	6	37
1	F	266/269 (99%)	224 (84%)	37 (14%)	5 (2%)	8	41
1	G	266/269 (99%)	224 (84%)	31 (12%)	11 (4%)	3	26
1	H	266/269 (99%)	225 (85%)	35 (13%)	6 (2%)	6	37
All	All	2126/2152 (99%)	1782 (84%)	281 (13%)	63 (3%)	4	32

All (63) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	112	VAL
1	A	252	SER
1	A	253	ILE
1	B	112	VAL
1	B	252	SER
1	C	361	SER
1	C	362	ASP
1	D	252	SER

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Mol	Chain	Res	Type
1	D	324	GLU
1	E	112	VAL
1	F	112	VAL
1	G	113	ARG
1	G	252	SER
1	H	306	GLU
1	A	115	VAL
1	B	111	TYR
1	B	253	ILE
1	C	113	ARG
1	C	311	VAL
1	D	253	ILE
1	D	325	ILE
1	F	252	SER
1	G	114	LYS
1	G	375	VAL
1	H	272	VAL
1	B	304	ARG
1	C	131	GLU
1	C	252	SER
1	D	254	LEU
1	E	252	SER
1	F	304	ARG
1	G	118	LYS
1	G	325	ILE
1	H	252	SER
1	A	111	TYR
1	A	254	LEU
1	B	130	ILE
1	C	272	VAL
1	C	300	VAL
1	D	201	LEU
1	F	272	VAL
1	H	112	VAL
1	B	254	LEU
1	C	111	TYR
1	E	123	MET
1	G	117	PRO
1	G	247	PHE
1	H	119	ASP
1	H	304	ARG
1	A	304	ARG

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Mol	Chain	Res	Type
1	C	201	LEU
1	F	201	LEU
1	G	112	VAL
1	G	123	MET
1	G	350	ARG
1	A	325	ILE
1	B	272	VAL
1	C	130	ILE
1	E	130	ILE
1	E	318	PRO
1	A	272	VAL
1	E	272	VAL
1	D	272	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	222/229 (97%)	165 (74%)	57 (26%)	0	4
1	B	222/229 (97%)	158 (71%)	64 (29%)	0	3
1	C	222/229 (97%)	155 (70%)	67 (30%)	0	2
1	D	220/229 (96%)	156 (71%)	64 (29%)	0	2
1	E	222/229 (97%)	169 (76%)	53 (24%)	0	5
1	F	222/229 (97%)	168 (76%)	54 (24%)	0	4
1	G	222/229 (97%)	179 (81%)	43 (19%)	1	9
1	H	222/229 (97%)	164 (74%)	58 (26%)	0	4
All	All	1774/1832 (97%)	1314 (74%)	460 (26%)	0	4

All (460) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	111	TYR
1	A	113	ARG

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Mol	Chain	Res	Type
1	A	114	LYS
1	A	115	VAL
1	A	119	ASP
1	A	120	TYR
1	A	121	LYS
1	A	122	THR
1	A	126	LEU
1	A	128	LYS
1	A	131	GLU
1	A	135	LEU
1	A	137	SER
1	A	139	LEU
1	A	144	ARG
1	A	145	SER
1	A	151	MET
1	A	152	PHE
1	A	154	VAL
1	A	156	PHE
1	A	168	GLU
1	A	177	GLN
1	A	186	ASN
1	A	188	TRP
1	A	198	PHE
1	A	205	TYR
1	A	207	THR
1	A	211	ASP
1	A	212	THR
1	A	222	TRP
1	A	224	ILE
1	A	226	ARG
1	A	233	LEU
1	A	236	SER
1	A	242	LYS
1	A	246	GLU
1	A	254	LEU
1	A	256	SER
1	A	262	ARG
1	A	264	THR
1	A	270	GLU
1	A	273	GLN
1	A	279	LYS
1	A	291	PHE

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Mol	Chain	Res	Type
1	A	293	ILE
1	A	294	LEU
1	A	310	PHE
1	A	313	VAL
1	A	315	ARG
1	A	329	MET
1	A	338	VAL
1	A	348	LEU
1	A	357	LEU
1	A	364	LEU
1	A	366	ARG
1	A	372	ASN
1	A	376	SER
1	B	112	VAL
1	B	115	VAL
1	B	120	TYR
1	B	121	LYS
1	B	122	THR
1	B	126	LEU
1	B	128	LYS
1	B	131	GLU
1	B	134	VAL
1	B	135	LEU
1	B	139	LEU
1	B	144	ARG
1	B	145	SER
1	B	151	MET
1	B	152	PHE
1	B	154	VAL
1	B	156	PHE
1	B	168	GLU
1	B	170	ASP
1	B	177	GLN
1	B	186	ASN
1	B	188	TRP
1	B	191	SER
1	B	198	PHE
1	B	200	GLU
1	B	201	LEU
1	B	205	TYR
1	B	207	THR
1	B	211	ASP

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Mol	Chain	Res	Type
1	B	212	THR
1	B	222	TRP
1	B	224	ILE
1	B	226	ARG
1	B	231	ARG
1	B	233	LEU
1	B	234	MET
1	B	236	SER
1	B	241	ARG
1	B	242	LYS
1	B	254	LEU
1	B	262	ARG
1	B	264	THR
1	B	273	GLN
1	B	279	LYS
1	B	288	ASP
1	B	291	PHE
1	B	292	ILE
1	B	293	ILE
1	B	294	LEU
1	B	301	LEU
1	B	310	PHE
1	B	312	GLU
1	B	313	VAL
1	B	315	ARG
1	B	316	LEU
1	B	321	TYR
1	B	322	PHE
1	B	329	MET
1	B	331	ARG
1	B	338	VAL
1	B	348	LEU
1	B	364	LEU
1	B	366	ARG
1	B	375	VAL
1	C	110	SER
1	C	113	ARG
1	C	115	VAL
1	C	120	TYR
1	C	121	LYS
1	C	122	THR
1	C	126	LEU

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Mol	Chain	Res	Type
1	C	128	LYS
1	C	131	GLU
1	C	134	VAL
1	C	135	LEU
1	C	137	SER
1	C	139	LEU
1	C	144	ARG
1	C	145	SER
1	C	151	MET
1	C	152	PHE
1	C	154	VAL
1	C	156	PHE
1	C	161	THR
1	C	162	VAL
1	C	168	GLU
1	C	177	GLN
1	C	186	ASN
1	C	188	TRP
1	C	198	PHE
1	C	200	GLU
1	C	205	TYR
1	C	207	THR
1	C	211	ASP
1	C	212	THR
1	C	213	VAL
1	C	222	TRP
1	C	224	ILE
1	C	226	ARG
1	C	233	LEU
1	C	234	MET
1	C	236	SER
1	C	242	LYS
1	C	246	GLU
1	C	247	PHE
1	C	248	LEU
1	C	249	SER
1	C	251	VAL
1	C	254	LEU
1	C	262	ARG
1	C	263	LEU
1	C	264	THR
1	C	269	LEU

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Mol	Chain	Res	Type
1	C	270	GLU
1	C	273	GLN
1	C	291	PHE
1	C	293	ILE
1	C	294	LEU
1	C	297	SER
1	C	301	LEU
1	C	309	GLU
1	C	313	VAL
1	C	315	ARG
1	C	316	LEU
1	C	329	MET
1	C	332	PRO
1	C	338	VAL
1	C	364	LEU
1	C	365	LYS
1	C	366	ARG
1	C	368	ILE
1	D	112	VAL
1	D	116	ILE
1	D	120	TYR
1	D	121	LYS
1	D	122	THR
1	D	126	LEU
1	D	128	LYS
1	D	131	GLU
1	D	134	VAL
1	D	135	LEU
1	D	139	LEU
1	D	144	ARG
1	D	145	SER
1	D	147	ILE
1	D	151	MET
1	D	152	PHE
1	D	154	VAL
1	D	157	ILE
1	D	161	THR
1	D	168	GLU
1	D	177	GLN
1	D	186	ASN
1	D	188	TRP
1	D	191	SER

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Mol	Chain	Res	Type
1	D	192	VAL
1	D	198	PHE
1	D	201	LEU
1	D	205	TYR
1	D	207	THR
1	D	211	ASP
1	D	212	THR
1	D	222	TRP
1	D	224	ILE
1	D	226	ARG
1	D	233	LEU
1	D	234	MET
1	D	236	SER
1	D	242	LYS
1	D	246	GLU
1	D	247	PHE
1	D	249	SER
1	D	250	LYS
1	D	251	VAL
1	D	254	LEU
1	D	256	SER
1	D	264	THR
1	D	270	GLU
1	D	273	GLN
1	D	279	LYS
1	D	291	PHE
1	D	293	ILE
1	D	294	LEU
1	D	309	GLU
1	D	311	VAL
1	D	312	GLU
1	D	313	VAL
1	D	315	ARG
1	D	316	LEU
1	D	325	ILE
1	D	329	MET
1	D	331	ARG
1	D	338	VAL
1	D	344	LYS
1	D	366	ARG
1	E	110	SER
1	E	112	VAL

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Mol	Chain	Res	Type
1	E	114	LYS
1	E	115	VAL
1	E	116	ILE
1	E	120	TYR
1	E	121	LYS
1	E	122	THR
1	E	126	LEU
1	E	131	GLU
1	E	135	LEU
1	E	139	LEU
1	E	144	ARG
1	E	145	SER
1	E	151	MET
1	E	152	PHE
1	E	154	VAL
1	E	156	PHE
1	E	168	GLU
1	E	177	GLN
1	E	188	TRP
1	E	198	PHE
1	E	205	TYR
1	E	207	THR
1	E	211	ASP
1	E	212	THR
1	E	222	TRP
1	E	224	ILE
1	E	226	ARG
1	E	233	LEU
1	E	236	SER
1	E	242	LYS
1	E	246	GLU
1	E	249	SER
1	E	254	LEU
1	E	264	THR
1	E	269	LEU
1	E	270	GLU
1	E	273	GLN
1	E	279	LYS
1	E	281	VAL
1	E	291	PHE
1	E	294	LEU
1	E	301	LEU

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Mol	Chain	Res	Type
1	E	309	GLU
1	E	312	GLU
1	E	329	MET
1	E	338	VAL
1	E	344	LYS
1	E	364	LEU
1	E	366	ARG
1	E	368	ILE
1	E	375	VAL
1	F	113	ARG
1	F	114	LYS
1	F	115	VAL
1	F	116	ILE
1	F	121	LYS
1	F	122	THR
1	F	126	LEU
1	F	128	LYS
1	F	130	ILE
1	F	131	GLU
1	F	135	LEU
1	F	139	LEU
1	F	144	ARG
1	F	145	SER
1	F	146	ASP
1	F	151	MET
1	F	152	PHE
1	F	154	VAL
1	F	156	PHE
1	F	168	GLU
1	F	177	GLN
1	F	186	ASN
1	F	188	TRP
1	F	190	THR
1	F	191	SER
1	F	198	PHE
1	F	205	TYR
1	F	207	THR
1	F	211	ASP
1	F	212	THR
1	F	222	TRP
1	F	224	ILE
1	F	226	ARG

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Mol	Chain	Res	Type
1	F	233	LEU
1	F	236	SER
1	F	242	LYS
1	F	246	GLU
1	F	247	PHE
1	F	249	SER
1	F	251	VAL
1	F	254	LEU
1	F	262	ARG
1	F	264	THR
1	F	273	GLN
1	F	279	LYS
1	F	291	PHE
1	F	294	LEU
1	F	301	LEU
1	F	302	GLN
1	F	321	TYR
1	F	329	MET
1	F	338	VAL
1	F	364	LEU
1	F	366	ARG
1	G	112	VAL
1	G	120	TYR
1	G	122	THR
1	G	126	LEU
1	G	135	LEU
1	G	139	LEU
1	G	144	ARG
1	G	145	SER
1	G	151	MET
1	G	152	PHE
1	G	154	VAL
1	G	161	THR
1	G	177	GLN
1	G	188	TRP
1	G	198	PHE
1	G	207	THR
1	G	211	ASP
1	G	212	THR
1	G	222	TRP
1	G	224	ILE
1	G	226	ARG

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Mol	Chain	Res	Type
1	G	233	LEU
1	G	236	SER
1	G	242	LYS
1	G	246	GLU
1	G	247	PHE
1	G	249	SER
1	G	251	VAL
1	G	254	LEU
1	G	262	ARG
1	G	264	THR
1	G	269	LEU
1	G	273	GLN
1	G	279	LYS
1	G	291	PHE
1	G	293	ILE
1	G	294	LEU
1	G	309	GLU
1	G	311	VAL
1	G	329	MET
1	G	338	VAL
1	G	364	LEU
1	G	366	ARG
1	H	110	SER
1	H	113	ARG
1	H	120	TYR
1	H	121	LYS
1	H	122	THR
1	H	126	LEU
1	H	128	LYS
1	H	131	GLU
1	H	135	LEU
1	H	137	SER
1	H	139	LEU
1	H	144	ARG
1	H	145	SER
1	H	151	MET
1	H	152	PHE
1	H	154	VAL
1	H	156	PHE
1	H	168	GLU
1	H	177	GLN
1	H	186	ASN

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Mol	Chain	Res	Type
1	H	188	TRP
1	H	198	PHE
1	H	205	TYR
1	H	207	THR
1	H	211	ASP
1	H	212	THR
1	H	222	TRP
1	H	224	ILE
1	H	226	ARG
1	H	233	LEU
1	H	236	SER
1	H	242	LYS
1	H	246	GLU
1	H	247	PHE
1	H	249	SER
1	H	251	VAL
1	H	254	LEU
1	H	256	SER
1	H	262	ARG
1	H	264	THR
1	H	270	GLU
1	H	273	GLN
1	H	279	LYS
1	H	285	GLU
1	H	291	PHE
1	H	292	ILE
1	H	293	ILE
1	H	300	VAL
1	H	301	LEU
1	H	309	GLU
1	H	311	VAL
1	H	313	VAL
1	H	329	MET
1	H	331	ARG
1	H	332	PRO
1	H	338	VAL
1	H	364	LEU
1	H	376	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (14) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	273	GLN
1	B	185	ASN
1	B	273	GLN
1	C	273	GLN
1	D	142	ASN
1	D	273	GLN
1	E	142	ASN
1	E	273	GLN
1	F	142	ASN
1	F	273	GLN
1	F	302	GLN
1	G	273	GLN
1	H	273	GLN
1	H	302	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

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	$\# Z > 2$
2	CMP	B	402	-	22,25,25	2.22	6 (27%)	24,39,39	2.03	8 (33%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	CMP	D	402	-	22,25,25	1.80	6 (27%)	24,39,39	1.60	4 (16%)
2	CMP	G	402	-	22,25,25	1.63	6 (27%)	24,39,39	2.46	7 (29%)
2	CMP	A	401	-	22,25,25	1.68	3 (13%)	24,39,39	2.27	9 (37%)
2	CMP	E	401	-	22,25,25	1.76	7 (31%)	24,39,39	1.96	7 (29%)
2	CMP	C	402	-	22,25,25	1.89	6 (27%)	24,39,39	2.15	5 (20%)
2	CMP	A	402	-	22,25,25	2.07	7 (31%)	24,39,39	2.44	7 (29%)
2	CMP	E	402	-	22,25,25	1.92	5 (22%)	24,39,39	1.65	5 (20%)
2	CMP	F	402	-	22,25,25	1.91	5 (22%)	24,39,39	1.82	5 (20%)
2	CMP	H	401	-	22,25,25	2.15	5 (22%)	24,39,39	2.52	6 (25%)
2	CMP	C	401	-	22,25,25	1.72	4 (18%)	24,39,39	2.14	6 (25%)
2	CMP	H	402	-	22,25,25	1.81	5 (22%)	24,39,39	1.90	6 (25%)
2	CMP	F	401	-	22,25,25	1.76	3 (13%)	24,39,39	1.71	5 (20%)
2	CMP	B	401	-	22,25,25	1.77	4 (18%)	24,39,39	2.57	8 (33%)
2	CMP	G	401	-	22,25,25	1.93	6 (27%)	24,39,39	1.65	5 (20%)
2	CMP	D	401	-	22,25,25	1.89	4 (18%)	24,39,39	1.70	7 (29%)

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
2	CMP	B	402	-	-	0/0/31/31	0/4/4/4
2	CMP	D	402	-	-	0/0/31/31	0/4/4/4
2	CMP	G	402	-	-	0/0/31/31	0/4/4/4
2	CMP	A	401	-	-	0/0/31/31	0/4/4/4
2	CMP	E	401	-	-	0/0/31/31	0/4/4/4
2	CMP	C	402	-	-	0/0/31/31	0/4/4/4
2	CMP	A	402	-	-	0/0/31/31	0/4/4/4
2	CMP	E	402	-	-	0/0/31/31	0/4/4/4
2	CMP	F	402	-	-	0/0/31/31	0/4/4/4
2	CMP	H	401	-	-	0/0/31/31	0/4/4/4
2	CMP	C	401	-	-	0/0/31/31	0/4/4/4
2	CMP	H	402	-	-	0/0/31/31	0/4/4/4
2	CMP	F	401	-	-	0/0/31/31	0/4/4/4
2	CMP	B	401	-	-	0/0/31/31	0/4/4/4
2	CMP	G	401	-	-	0/0/31/31	0/4/4/4
2	CMP	D	401	-	-	0/0/31/31	0/4/4/4

All (82) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	402	CMP	P-O3'	6.88	1.69	1.57
2	H	401	CMP	P-O3'	6.86	1.69	1.57
2	D	401	CMP	P-O3'	5.93	1.67	1.57
2	A	402	CMP	P-O5'	5.43	1.63	1.57
2	A	401	CMP	P-O3'	5.41	1.66	1.57
2	B	401	CMP	P-O3'	5.40	1.66	1.57
2	B	402	CMP	P-O5'	5.32	1.63	1.57
2	G	401	CMP	P-O3'	5.24	1.66	1.57
2	F	402	CMP	P-O5'	5.06	1.63	1.57
2	H	402	CMP	P-O5'	4.96	1.63	1.57
2	E	402	CMP	P-O5'	4.88	1.63	1.57
2	E	402	CMP	P-O3'	4.87	1.65	1.57
2	F	401	CMP	P-O3'	4.85	1.65	1.57
2	C	401	CMP	P-O3'	4.83	1.65	1.57
2	A	402	CMP	P-O3'	4.82	1.65	1.57
2	D	402	CMP	P-O3'	4.81	1.65	1.57
2	H	402	CMP	P-O3'	4.53	1.65	1.57
2	F	402	CMP	P-O3'	4.44	1.65	1.57
2	E	401	CMP	P-O3'	4.23	1.64	1.57
2	C	402	CMP	P-O5'	4.15	1.62	1.57
2	C	402	CMP	P-O3'	3.95	1.64	1.57
2	G	401	CMP	C5-C4	3.43	1.50	1.40
2	D	401	CMP	P-O5'	3.33	1.61	1.57
2	G	402	CMP	P-O3'	3.26	1.63	1.57
2	F	401	CMP	O5'-C5'	-3.24	1.41	1.46
2	G	401	CMP	P-O5'	3.23	1.61	1.57
2	E	401	CMP	O5'-C5'	-3.15	1.41	1.46
2	E	402	CMP	C5-C4	3.13	1.49	1.40
2	F	402	CMP	C5-C4	3.08	1.49	1.40
2	C	402	CMP	C2-N3	3.04	1.37	1.32
2	H	401	CMP	C5-C4	3.02	1.48	1.40
2	G	402	CMP	C5-C4	3.00	1.48	1.40
2	C	402	CMP	C5-C4	2.93	1.48	1.40
2	H	401	CMP	C2-N3	2.90	1.36	1.32
2	D	402	CMP	P-O5'	2.89	1.61	1.57
2	G	402	CMP	O3'-C3'	-2.89	1.40	1.44
2	E	401	CMP	O3'-C3'	-2.88	1.40	1.44
2	A	402	CMP	C2-N3	2.87	1.36	1.32
2	B	401	CMP	O5'-C5'	-2.85	1.42	1.46
2	C	401	CMP	C2-N3	2.81	1.36	1.32
2	F	401	CMP	O3'-C3'	-2.80	1.40	1.44
2	H	401	CMP	C6-C5	2.79	1.53	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	401	CMP	O5'-C5'	-2.76	1.42	1.46
2	H	401	CMP	O5'-C5'	-2.74	1.42	1.46
2	D	402	CMP	O3'-C3'	-2.73	1.40	1.44
2	D	401	CMP	C5-C4	2.73	1.48	1.40
2	G	401	CMP	O3'-C3'	-2.68	1.40	1.44
2	C	401	CMP	C5-C4	2.65	1.47	1.40
2	A	402	CMP	C5-C4	2.62	1.47	1.40
2	F	402	CMP	C2-N3	2.62	1.36	1.32
2	F	402	CMP	C6-C5	2.54	1.52	1.43
2	E	401	CMP	C2-N3	2.54	1.36	1.32
2	C	401	CMP	O3'-C3'	-2.53	1.40	1.44
2	D	401	CMP	C2-N3	2.52	1.36	1.32
2	B	401	CMP	C2-N3	2.50	1.36	1.32
2	G	402	CMP	C5'-C4'	-2.50	1.47	1.51
2	G	401	CMP	C2-N3	2.48	1.36	1.32
2	G	401	CMP	O5'-C5'	-2.48	1.42	1.46
2	D	402	CMP	C2-N3	2.44	1.36	1.32
2	A	402	CMP	C2'-C1'	2.41	1.57	1.53
2	C	402	CMP	O5'-C5'	-2.40	1.42	1.46
2	B	402	CMP	C2'-C1'	2.39	1.57	1.53
2	H	402	CMP	C5-C4	2.35	1.47	1.40
2	D	402	CMP	C5-C4	2.33	1.47	1.40
2	G	402	CMP	O5'-C5'	-2.32	1.42	1.46
2	H	402	CMP	O3'-C3'	-2.31	1.40	1.44
2	B	402	CMP	C2-N3	2.30	1.35	1.32
2	E	402	CMP	C2-N3	2.25	1.35	1.32
2	H	402	CMP	O5'-C5'	-2.24	1.43	1.46
2	C	402	CMP	O3'-C3'	-2.19	1.41	1.44
2	G	402	CMP	P-O5'	2.16	1.60	1.57
2	A	401	CMP	P-O5'	2.14	1.60	1.57
2	B	401	CMP	C5-C4	2.14	1.46	1.40
2	B	402	CMP	C5-C4	2.12	1.46	1.40
2	D	402	CMP	O5'-C5'	-2.12	1.43	1.46
2	E	401	CMP	P-O5'	2.12	1.60	1.57
2	A	402	CMP	C4-N3	2.11	1.38	1.35
2	E	402	CMP	C6-C5	2.10	1.51	1.43
2	A	402	CMP	O5'-C5'	-2.09	1.43	1.46
2	E	401	CMP	C5-C4	2.05	1.46	1.40
2	E	401	CMP	C6-C5	2.04	1.50	1.43
2	B	402	CMP	C5'-C4'	-2.00	1.48	1.51

All (100) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	G	402	CMP	C1'-N9-C4	8.60	141.76	126.64
2	H	401	CMP	C4-C5-N7	-7.18	101.92	109.40
2	A	402	CMP	O3'-P-O1P	-6.46	96.56	110.39
2	B	401	CMP	N3-C2-N1	-6.19	119.01	128.68
2	A	401	CMP	N3-C2-N1	-6.05	119.22	128.68
2	B	401	CMP	C5-C6-N6	-6.01	111.22	120.35
2	E	401	CMP	C4-C5-N7	-5.87	103.28	109.40
2	C	401	CMP	C1'-N9-C4	5.84	136.90	126.64
2	H	402	CMP	O5'-P-O3'	5.72	113.56	105.68
2	C	402	CMP	O5'-P-O3'	5.59	113.37	105.68
2	C	402	CMP	O3'-P-O1P	-5.52	98.57	110.39
2	H	401	CMP	C5-C6-N6	5.52	128.74	120.35
2	A	402	CMP	C1'-N9-C4	5.25	135.86	126.64
2	F	402	CMP	O3'-P-O1P	-4.90	99.90	110.39
2	B	402	CMP	O2P-P-O3'	-4.80	95.85	107.04
2	H	401	CMP	C1'-N9-C4	4.71	134.91	126.64
2	B	401	CMP	O3'-P-O1P	-4.66	100.42	110.39
2	C	401	CMP	C4-C5-N7	-4.64	104.56	109.40
2	G	402	CMP	O3'-P-O1P	-4.58	100.57	110.39
2	B	401	CMP	N6-C6-N1	4.51	127.94	118.57
2	F	401	CMP	C4-C5-N7	-4.27	104.95	109.40
2	A	401	CMP	C5-C6-N6	-4.26	113.88	120.35
2	A	402	CMP	O5'-P-O3'	4.23	111.50	105.68
2	D	401	CMP	C1'-N9-C4	4.13	133.89	126.64
2	A	402	CMP	N3-C2-N1	-3.97	122.47	128.68
2	A	401	CMP	N6-C6-N1	3.96	126.79	118.57
2	F	402	CMP	C4-C5-N7	-3.96	105.28	109.40
2	D	402	CMP	O2P-P-O3'	-3.94	97.86	107.04
2	G	401	CMP	C1'-N9-C4	3.81	133.33	126.64
2	C	402	CMP	N3-C2-N1	-3.70	122.90	128.68
2	G	402	CMP	O2P-P-O1P	3.67	120.22	108.73
2	B	402	CMP	O5'-P-O3'	3.65	110.70	105.68
2	E	402	CMP	C4-C5-N7	-3.57	105.68	109.40
2	F	401	CMP	O2P-P-O1P	3.49	119.66	108.73
2	C	402	CMP	C1'-N9-C4	3.47	132.74	126.64
2	G	401	CMP	O2P-P-O1P	3.43	119.46	108.73
2	H	401	CMP	N6-C6-N1	-3.42	111.47	118.57
2	G	401	CMP	O3'-C3'-C4'	-3.39	108.15	110.71
2	B	402	CMP	O3'-C3'-C4'	-3.35	108.18	110.71
2	E	401	CMP	O2P-P-O1P	3.33	119.15	108.73
2	D	402	CMP	C4-C5-N7	-3.27	106.00	109.40
2	D	401	CMP	C4-C5-N7	-3.24	106.03	109.40
2	D	402	CMP	N3-C2-N1	-3.23	123.63	128.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	401	CMP	O3'-P-O1P	-3.21	103.51	110.39
2	C	401	CMP	O2P-P-O1P	3.15	118.60	108.73
2	E	402	CMP	O2P-P-O3'	-3.12	99.77	107.04
2	C	401	CMP	O3'-P-O1P	-3.12	103.70	110.39
2	B	401	CMP	O2P-P-O1P	3.12	118.49	108.73
2	D	402	CMP	O2P-P-O1P	3.11	118.46	108.73
2	E	402	CMP	O2P-P-O1P	3.10	118.45	108.73
2	C	402	CMP	O2P-P-O1P	3.10	118.44	108.73
2	B	402	CMP	C1'-N9-C4	3.07	132.04	126.64
2	H	402	CMP	O2P-P-O1P	3.07	118.35	108.73
2	D	401	CMP	O2P-P-O1P	3.06	118.31	108.73
2	F	402	CMP	O2P-P-O1P	3.06	118.31	108.73
2	A	402	CMP	O2P-P-O1P	3.05	118.30	108.73
2	A	401	CMP	O2P-P-O1P	3.05	118.27	108.73
2	A	402	CMP	C4-C5-N7	-3.03	106.24	109.40
2	H	401	CMP	O2P-P-O1P	3.00	118.13	108.73
2	E	402	CMP	N3-C2-N1	-2.95	124.06	128.68
2	G	402	CMP	N3-C2-N1	-2.94	124.08	128.68
2	B	402	CMP	O2P-P-O1P	2.87	117.72	108.73
2	B	402	CMP	N3-C2-N1	-2.86	124.20	128.68
2	G	401	CMP	C4-C5-N7	-2.84	106.44	109.40
2	H	402	CMP	O3'-P-O1P	-2.83	104.33	110.39
2	C	401	CMP	C5-C6-N6	2.75	124.53	120.35
2	B	402	CMP	O3'-C3'-C2'	-2.73	112.93	115.61
2	A	402	CMP	O3'-C3'-C4'	2.72	112.76	110.71
2	A	401	CMP	C2-N1-C6	2.71	123.40	118.75
2	G	401	CMP	O3'-P-O1P	-2.70	104.60	110.39
2	F	402	CMP	N3-C2-N1	-2.68	124.48	128.68
2	H	402	CMP	O2P-P-O3'	-2.65	100.86	107.04
2	F	401	CMP	N3-C2-N1	-2.64	124.55	128.68
2	D	401	CMP	N3-C2-N1	-2.62	124.58	128.68
2	A	401	CMP	C1'-N9-C4	2.60	131.22	126.64
2	F	402	CMP	C5-C6-N6	2.54	124.21	120.35
2	H	402	CMP	N3-C2-N1	-2.45	124.85	128.68
2	B	401	CMP	O3'-C3'-C2'	2.42	117.98	115.61
2	G	402	CMP	N6-C6-N1	2.42	123.59	118.57
2	A	401	CMP	O3'-P-O1P	-2.42	105.22	110.39
2	F	401	CMP	O4'-C4'-C3'	-2.37	99.79	104.87
2	G	402	CMP	O3'-C3'-C4'	-2.32	108.96	110.71
2	H	401	CMP	O3'-C3'-C2'	2.32	117.88	115.61
2	A	401	CMP	O3'-C3'-C2'	2.31	117.87	115.61
2	C	401	CMP	O5'-C5'-C4'	2.30	111.07	105.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	401	CMP	O5'-P-O3'	2.29	108.83	105.68
2	D	401	CMP	O3'-C3'-C2'	2.24	117.80	115.61
2	D	401	CMP	O5'-P-O3'	-2.20	102.65	105.68
2	F	401	CMP	O2P-P-O3'	-2.20	101.92	107.04
2	E	402	CMP	O3'-C3'-C4'	2.20	112.37	110.71
2	H	402	CMP	C4-C5-N7	-2.19	107.12	109.40
2	B	401	CMP	O4'-C4'-C3'	-2.18	100.20	104.87
2	E	401	CMP	N3-C2-N1	-2.16	125.31	128.68
2	D	401	CMP	O5'-C5'-C4'	2.11	110.62	105.71
2	E	401	CMP	C1'-N9-C4	-2.10	122.94	126.64
2	E	401	CMP	O4'-C4'-C3'	-2.10	100.36	104.87
2	A	401	CMP	O4'-C4'-C3'	-2.07	100.43	104.87
2	G	402	CMP	C2-N1-C6	2.07	122.29	118.75
2	B	401	CMP	C2-N1-C6	2.05	122.25	118.75
2	B	402	CMP	C4-C5-N7	-2.04	107.28	109.40

There are no chirality outliers.

There are no torsion outliers.

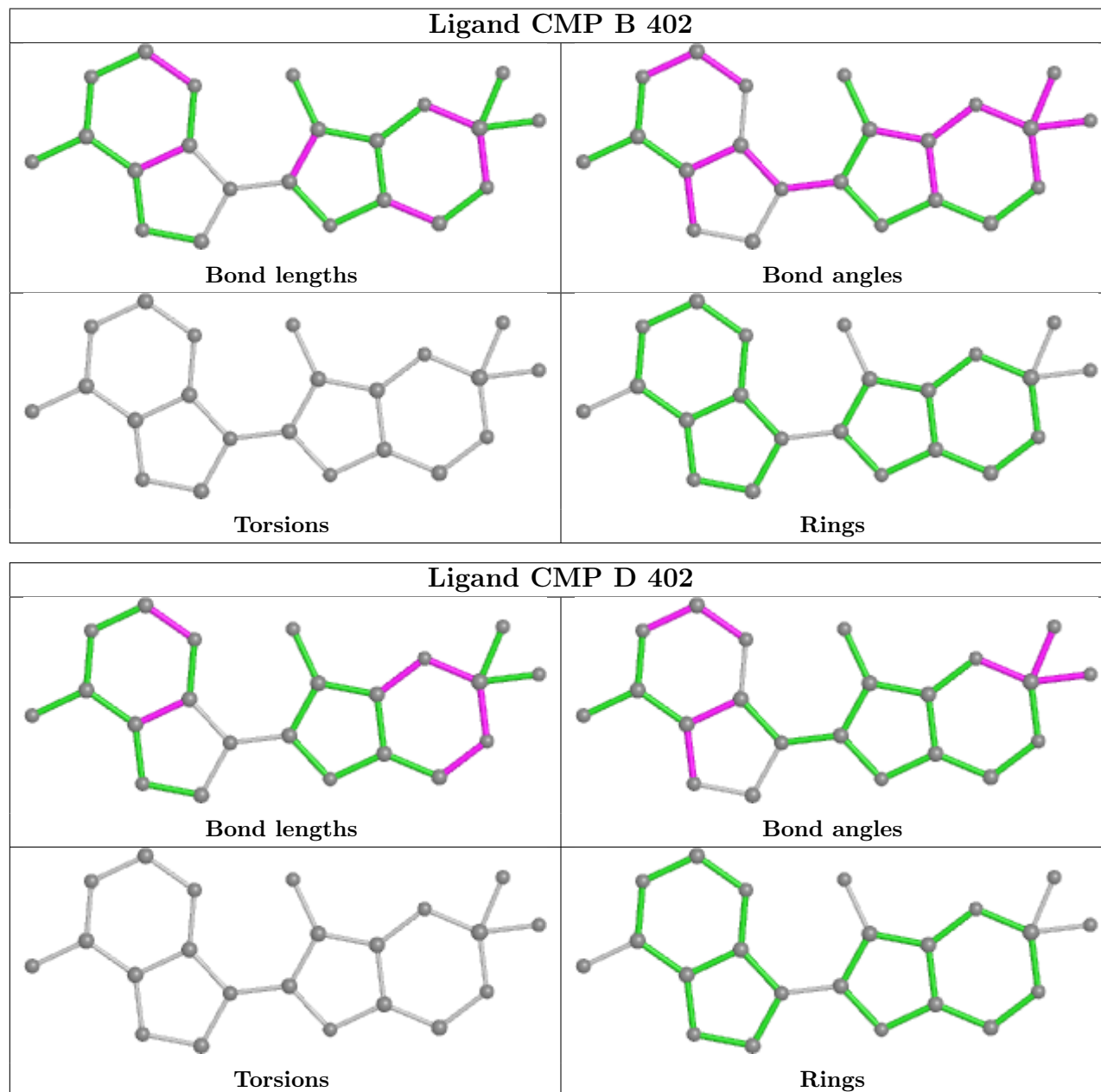
There are no ring outliers.

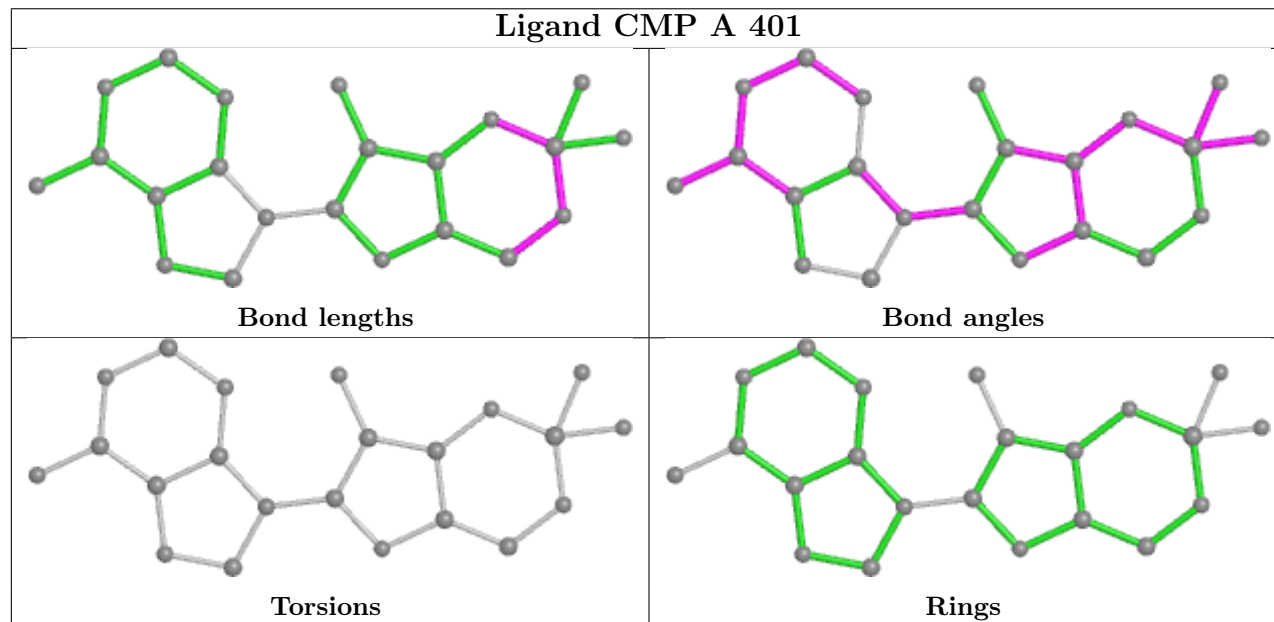
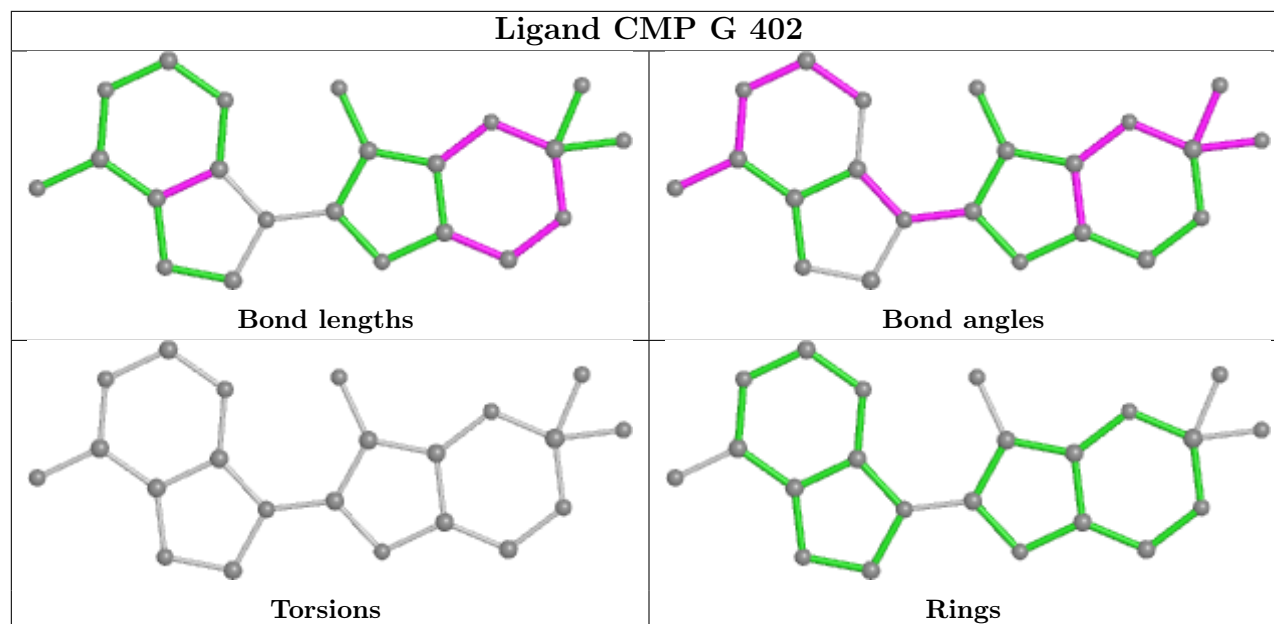
16 monomers are involved in 300 short contacts:

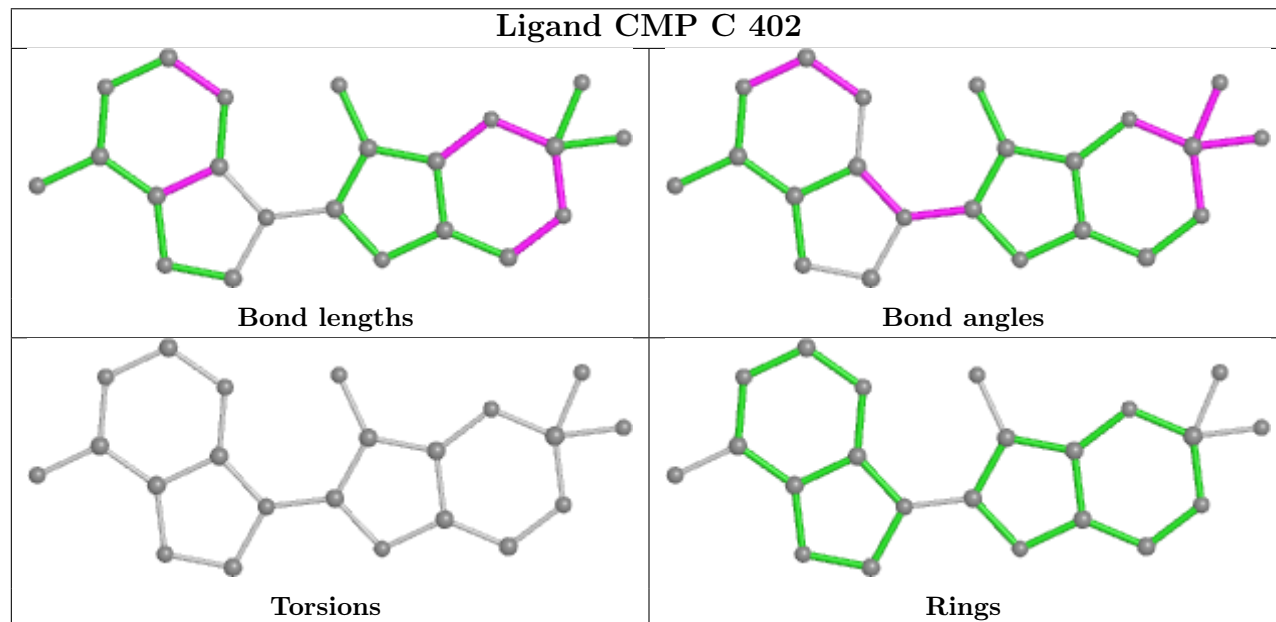
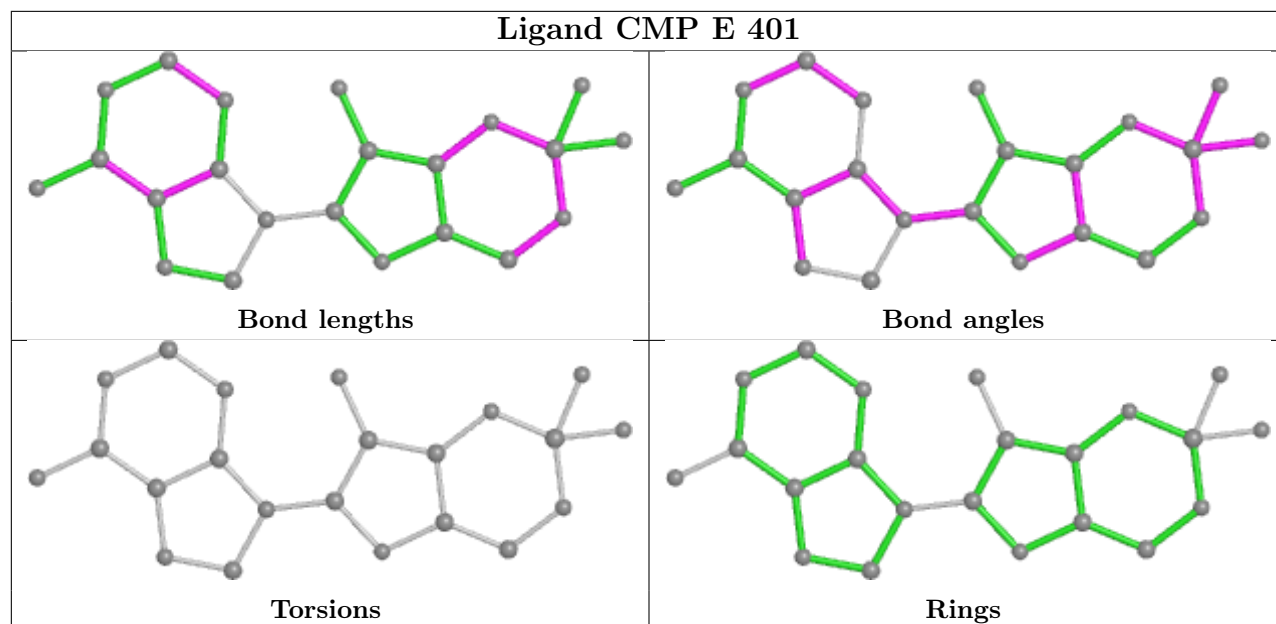
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	402	CMP	21	0
2	D	402	CMP	21	0
2	G	402	CMP	11	0
2	A	401	CMP	25	0
2	E	401	CMP	24	0
2	C	402	CMP	19	0
2	A	402	CMP	15	0
2	E	402	CMP	11	0
2	F	402	CMP	7	0
2	H	401	CMP	22	0
2	C	401	CMP	17	0
2	H	402	CMP	16	0
2	F	401	CMP	22	0
2	B	401	CMP	34	0
2	G	401	CMP	19	0
2	D	401	CMP	16	0

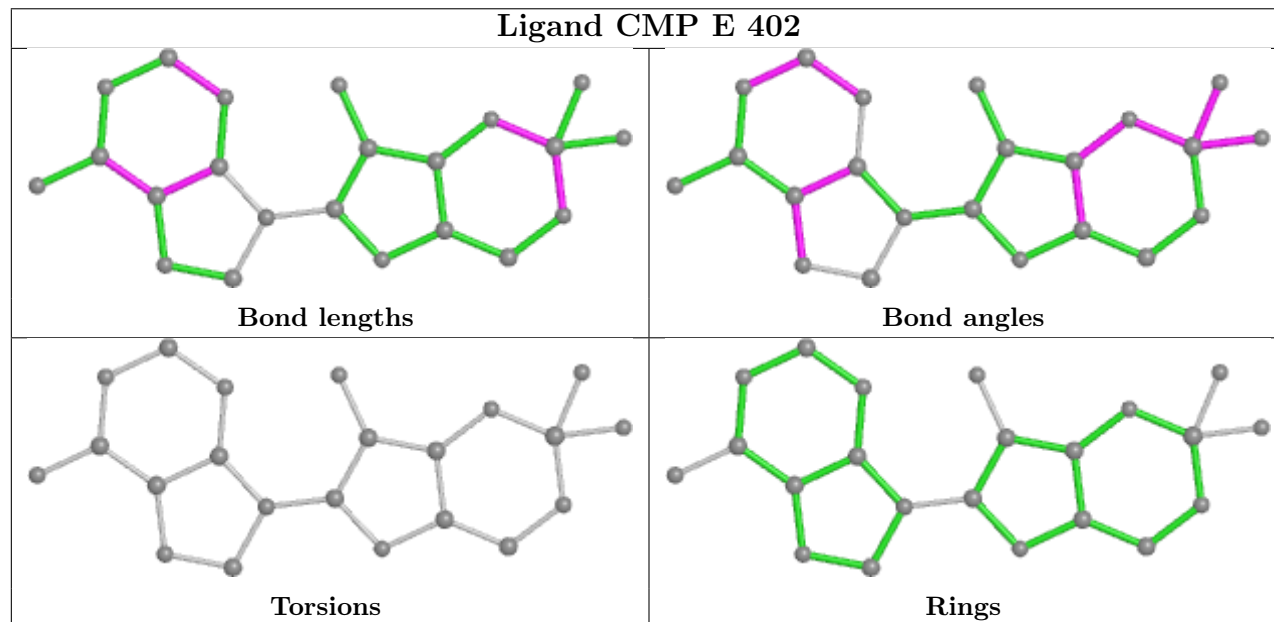
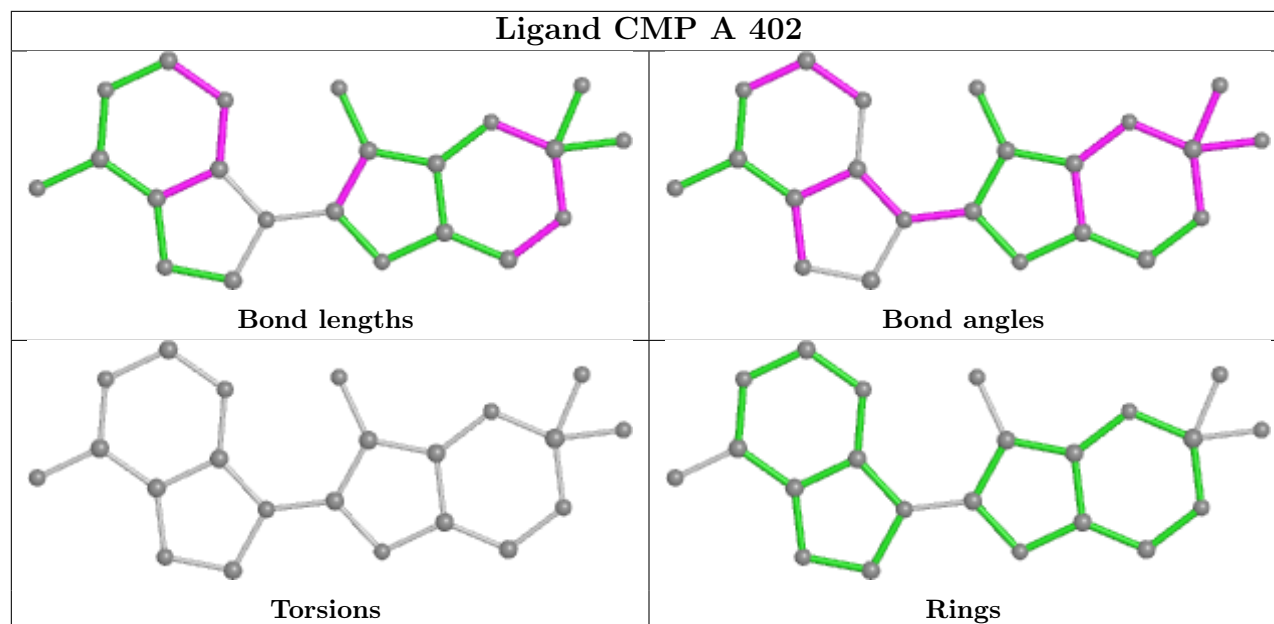
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In

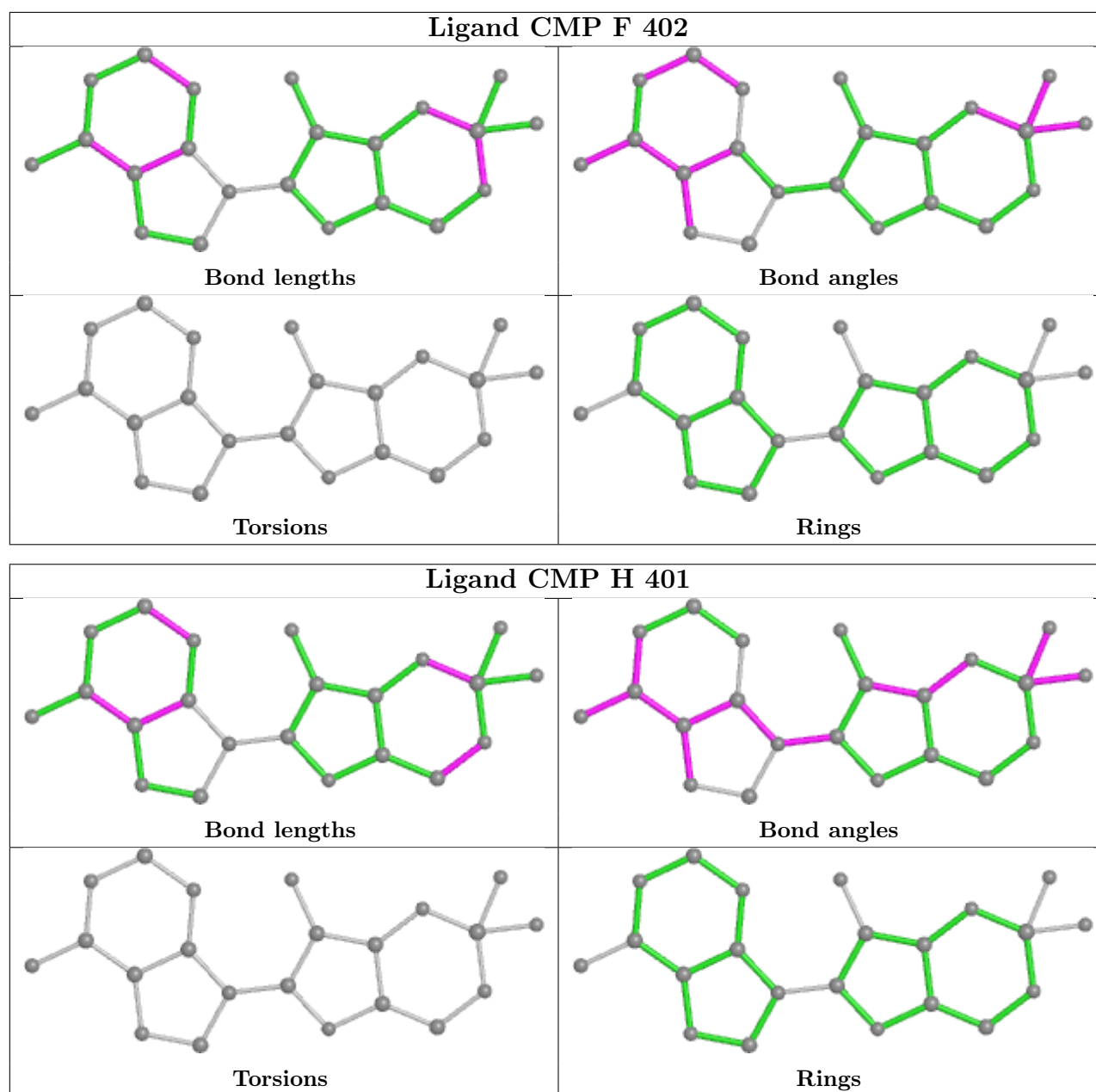
addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. 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.

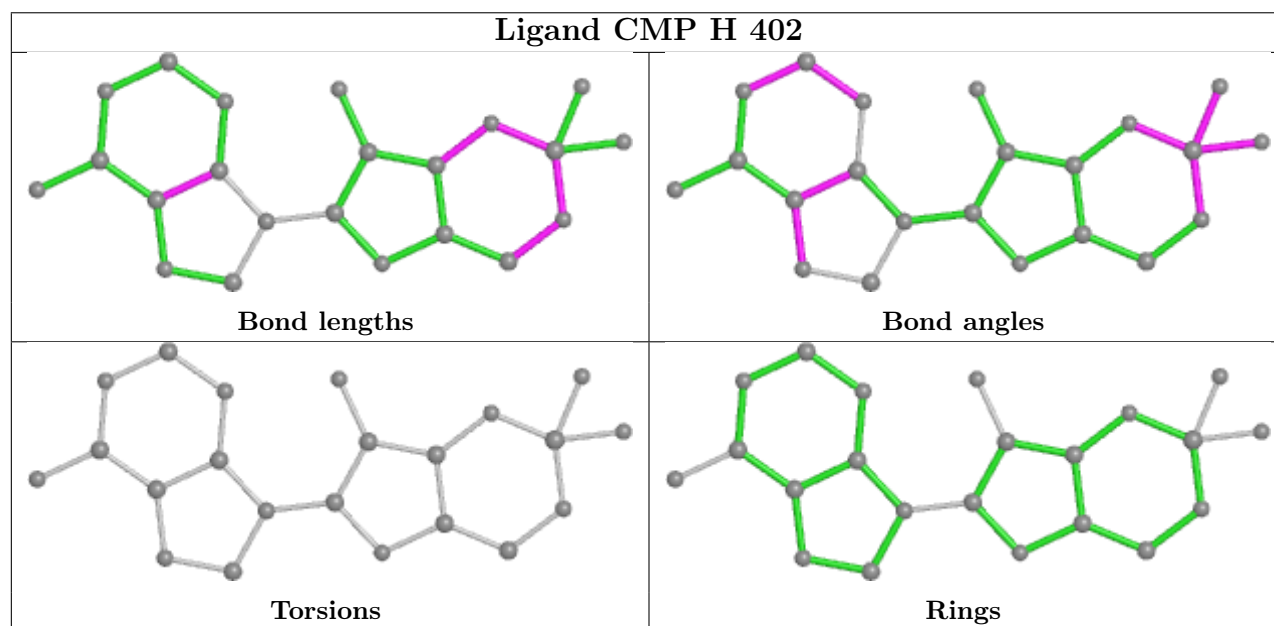
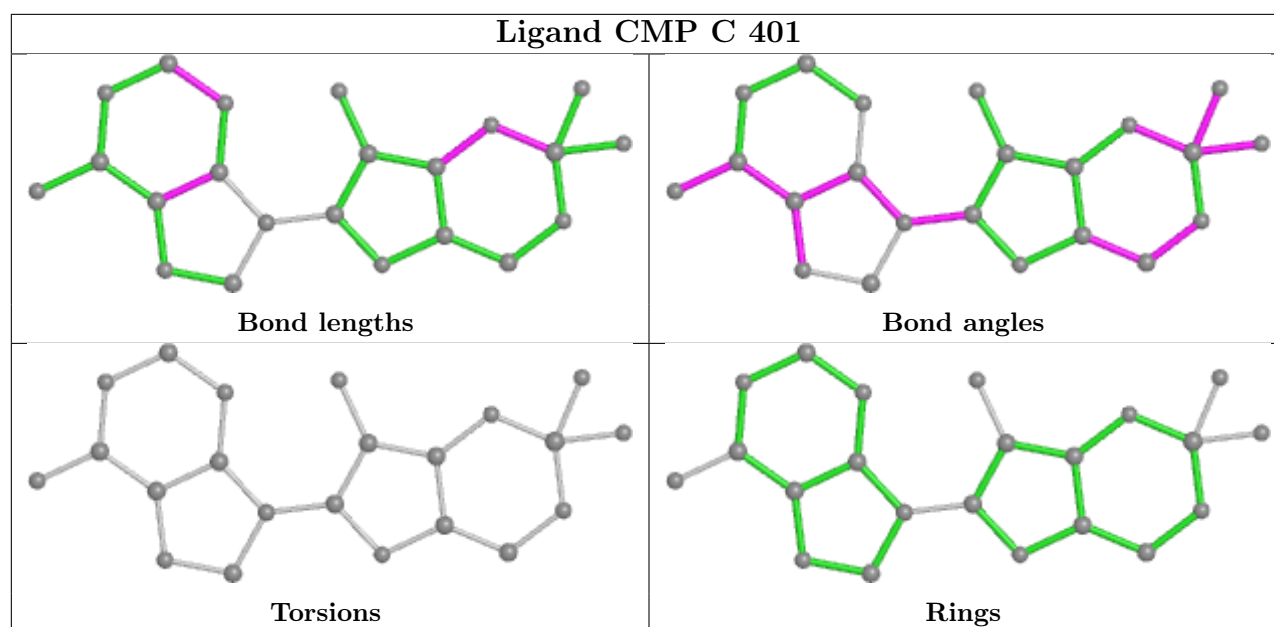


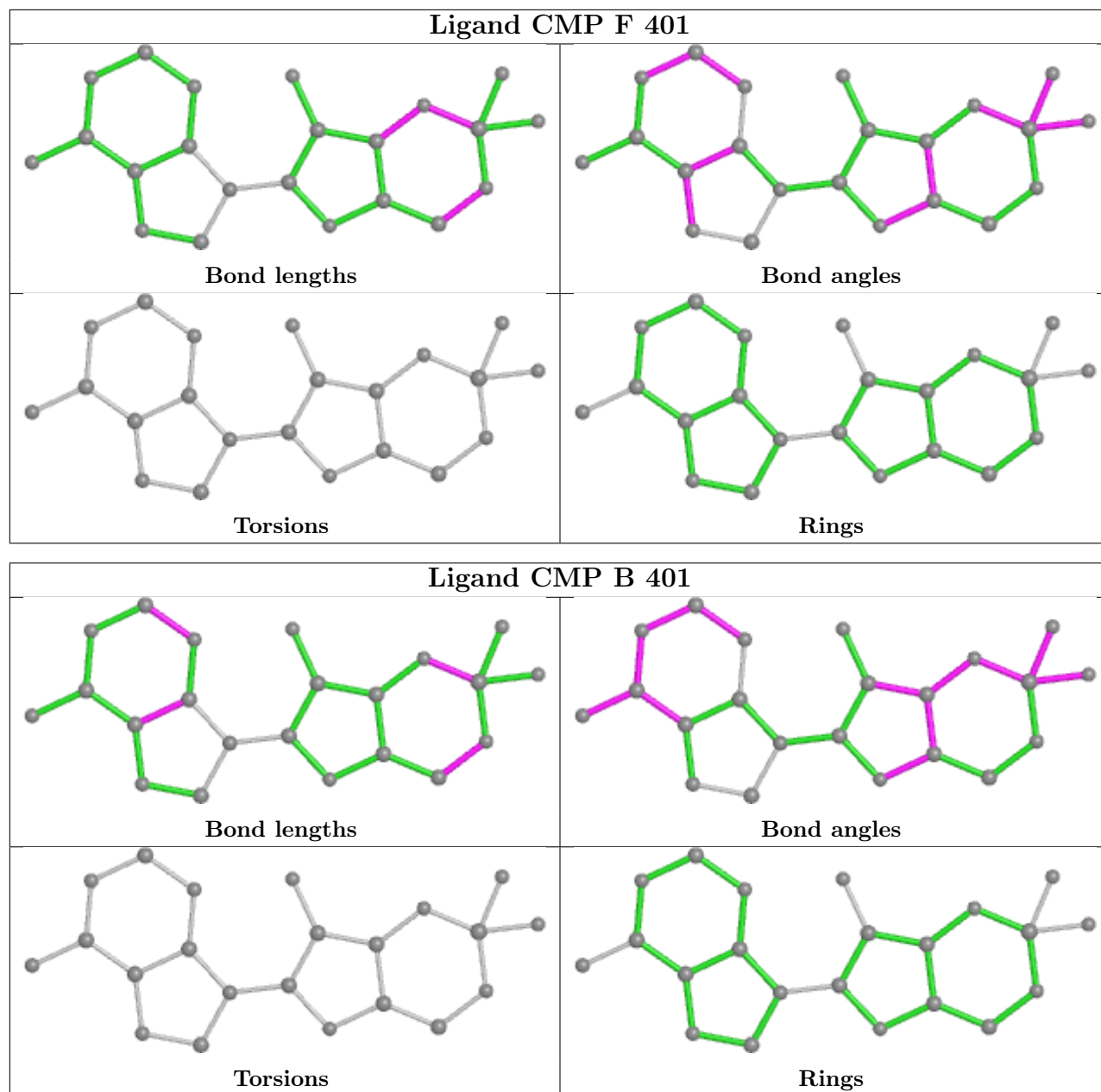


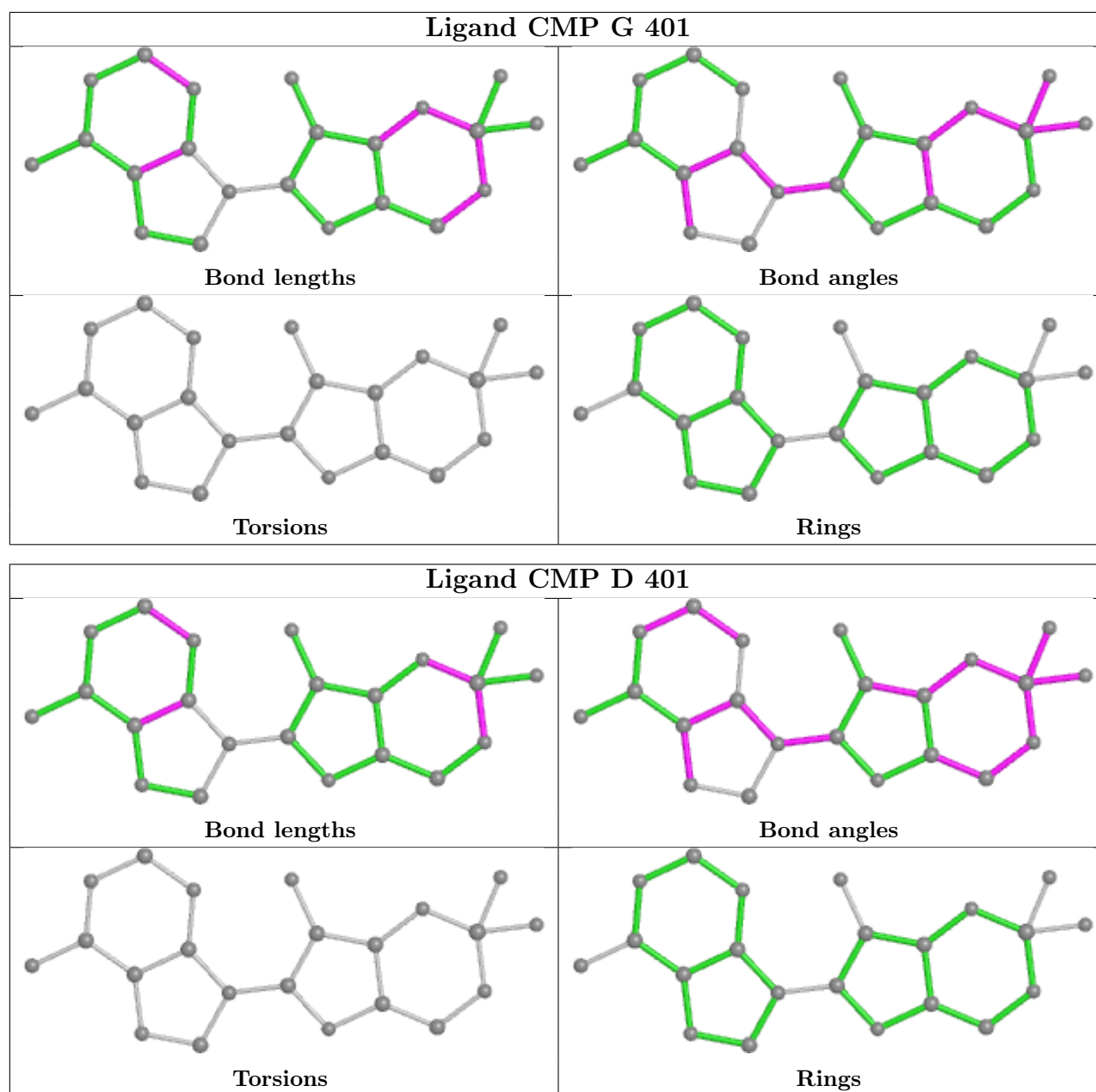












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	268/269 (99%)	0.03	13 (4%) 29 25	70, 133, 202, 260	0
1	B	268/269 (99%)	-0.04	11 (4%) 37 30	70, 133, 202, 266	0
1	C	268/269 (99%)	-0.09	8 (2%) 50 39	71, 131, 201, 286	0
1	D	266/269 (98%)	-0.05	10 (3%) 40 32	75, 133, 194, 246	0
1	E	268/269 (99%)	0.02	10 (3%) 41 33	75, 139, 215, 259	0
1	F	268/269 (99%)	0.04	8 (2%) 50 39	75, 138, 212, 261	0
1	G	268/269 (99%)	-0.06	10 (3%) 41 33	77, 135, 201, 268	0
1	H	268/269 (99%)	-0.05	7 (2%) 56 45	71, 132, 199, 274	0
All	All	2142/2152 (99%)	-0.03	77 (3%) 42 34	70, 134, 205, 286	0

All (77) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	306	GLU	7.7
1	B	304	ARG	6.4
1	B	305	SER	6.4
1	A	306	GLU	5.1
1	H	169	GLY	5.0
1	A	305	SER	4.9
1	A	304	ARG	4.7
1	E	307	ASN	4.6
1	C	287	GLY	4.5
1	F	375	VAL	4.4
1	E	305	SER	4.4
1	D	305	SER	4.3
1	D	306	GLU	3.9
1	A	168	GLU	3.8
1	B	307	ASN	3.7
1	H	168	GLU	3.6

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Mol	Chain	Res	Type	RSRZ
1	B	168	GLU	3.6
1	C	169	GLY	3.5
1	A	340	ARG	3.5
1	D	304	ARG	3.4
1	E	306	GLU	3.4
1	D	302	GLN	3.3
1	E	304	ARG	3.3
1	A	370	GLN	3.3
1	D	307	ASN	3.3
1	A	109	ALA	3.3
1	B	179	GLU	3.2
1	G	167	ASP	3.0
1	G	305	SER	2.9
1	E	368	ILE	2.9
1	C	187	GLU	2.9
1	G	374	PHE	2.9
1	G	166	GLY	2.9
1	D	275	GLU	2.8
1	B	164	GLN	2.7
1	C	168	GLU	2.7
1	D	286	PRO	2.7
1	H	226	ARG	2.7
1	C	331	ARG	2.6
1	F	368	ILE	2.6
1	E	169	GLY	2.6
1	A	179	GLU	2.5
1	G	286	PRO	2.5
1	E	308	GLU	2.5
1	F	305	SER	2.4
1	B	178	GLY	2.4
1	H	334	ALA	2.4
1	H	170	ASP	2.4
1	H	376	SER	2.4
1	A	339	ALA	2.4
1	F	304	ARG	2.3
1	G	275	GLU	2.3
1	F	185	ASN	2.3
1	F	372	ASN	2.3
1	B	308	GLU	2.3
1	C	334	ALA	2.3
1	D	370	GLN	2.3
1	G	183	TYR	2.3

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Mol	Chain	Res	Type	RSRZ
1	A	369	GLN	2.2
1	E	282	VAL	2.2
1	G	168	GLU	2.2
1	E	370	GLN	2.2
1	A	307	ASN	2.2
1	B	286	PRO	2.2
1	H	164	GLN	2.2
1	F	168	GLU	2.2
1	A	186	ASN	2.1
1	D	168	GLU	2.1
1	F	307	ASN	2.1
1	G	164	GLN	2.1
1	C	277	GLY	2.1
1	A	185	ASN	2.1
1	D	187	GLU	2.1
1	E	177	GLN	2.1
1	C	307	ASN	2.0
1	B	370	GLN	2.0
1	G	184	VAL	2.0

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

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

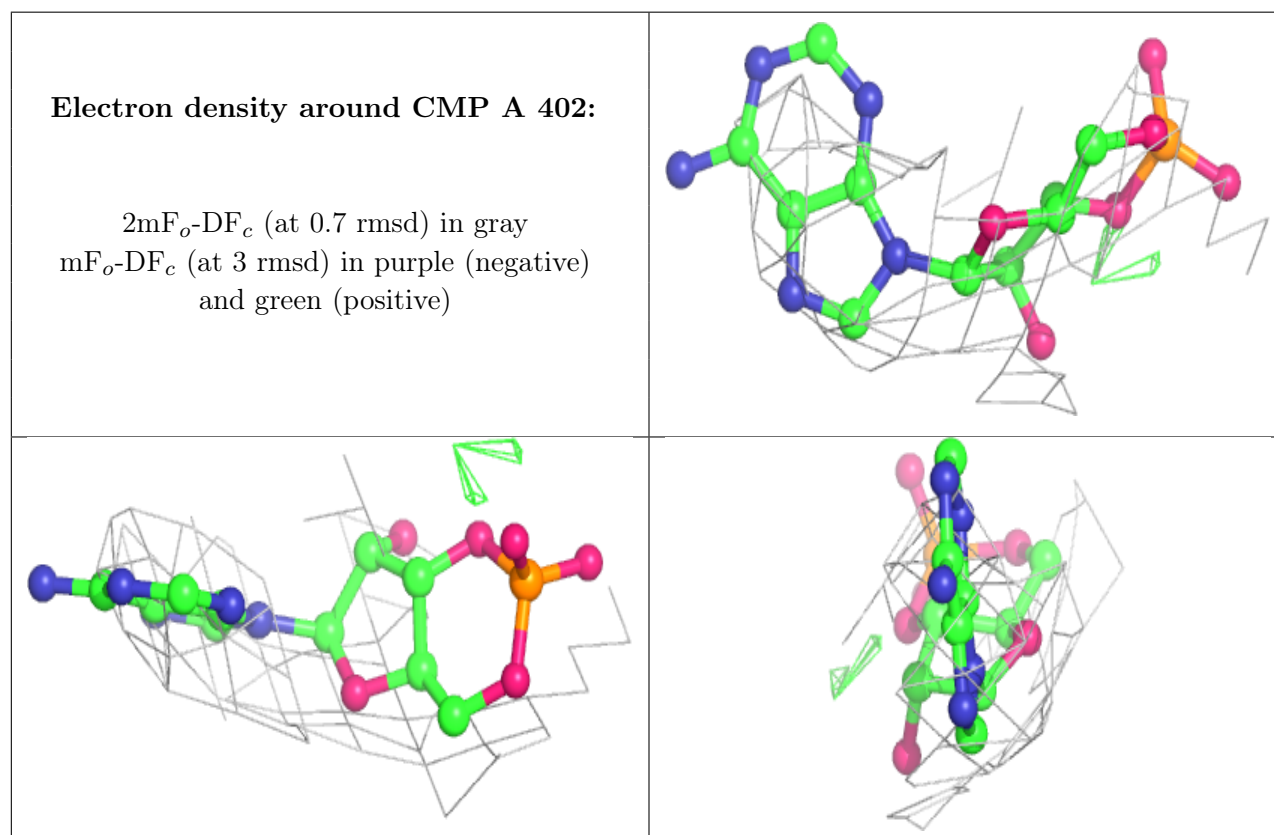
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
2	CMP	A	402	22/22	0.92	0.33	79,151,186,198	0
2	CMP	B	402	22/22	0.92	0.26	86,150,175,194	0
2	CMP	C	401	22/22	0.94	0.29	77,107,140,155	0
2	CMP	E	402	22/22	0.94	0.15	118,201,228,242	0

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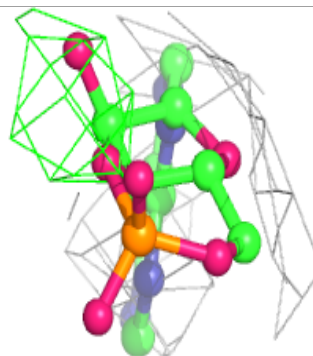
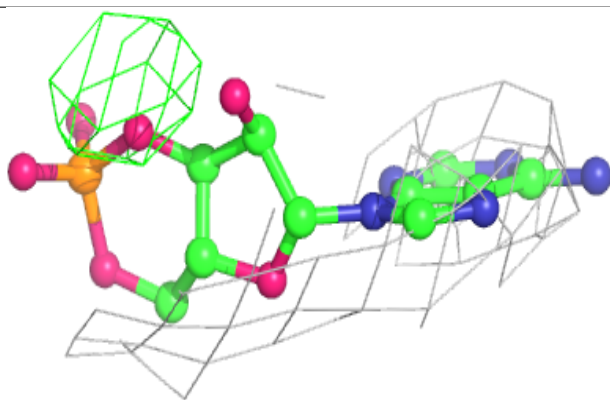
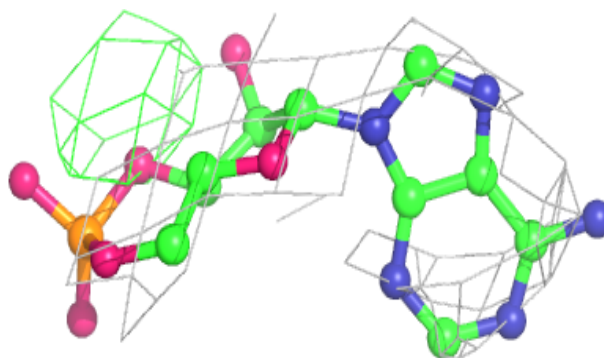
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
2	CMP	G	402	22/22	0.94	0.32	101,148,200,208	0
2	CMP	H	401	22/22	0.94	0.30	74,105,125,133	0
2	CMP	F	402	22/22	0.95	0.18	137,185,218,227	0
2	CMP	G	401	22/22	0.95	0.23	79,112,144,145	0
2	CMP	D	402	22/22	0.95	0.28	112,143,193,210	0
2	CMP	D	401	22/22	0.95	0.21	84,111,128,131	0
2	CMP	B	401	22/22	0.96	0.22	70,102,127,132	0
2	CMP	C	402	22/22	0.96	0.28	79,130,177,213	0
2	CMP	A	401	22/22	0.96	0.28	77,102,123,128	0
2	CMP	E	401	22/22	0.97	0.28	73,108,130,140	0
2	CMP	F	401	22/22	0.97	0.28	69,96,132,143	0
2	CMP	H	402	22/22	0.97	0.27	81,139,165,200	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

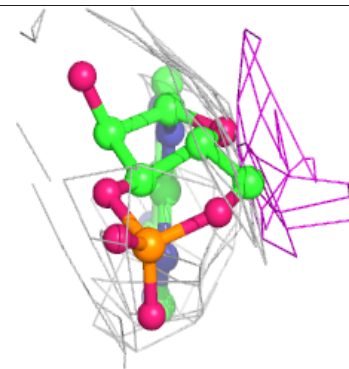
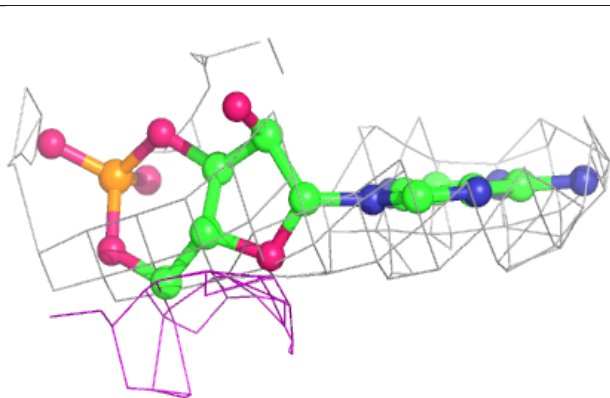
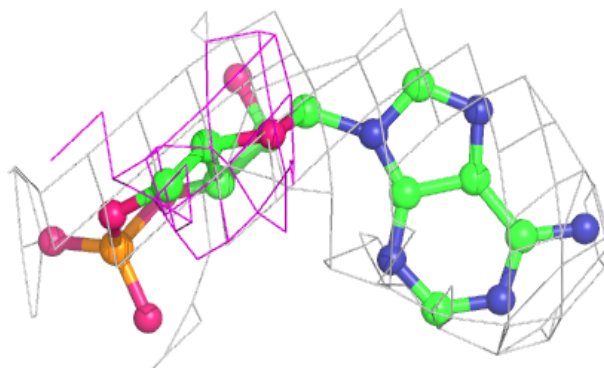


Electron density around CMP B 402:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

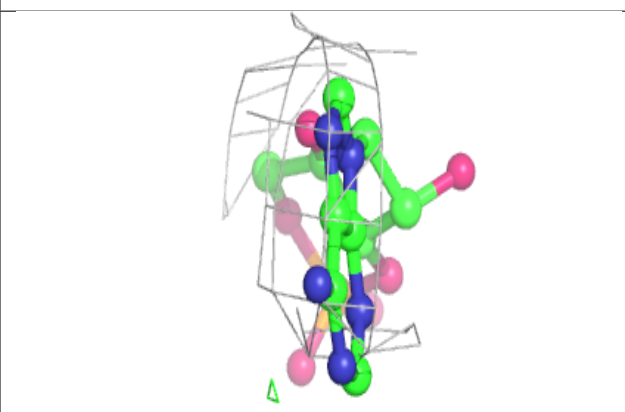
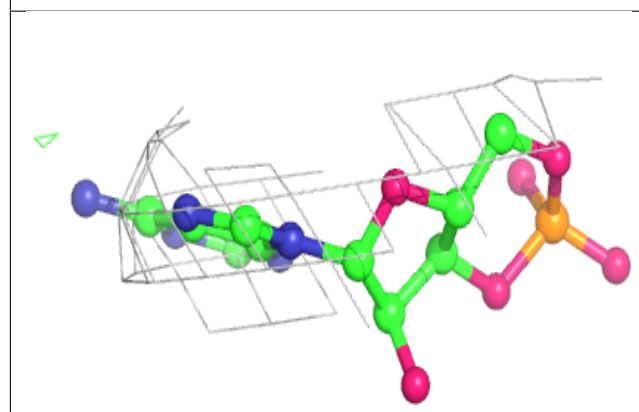
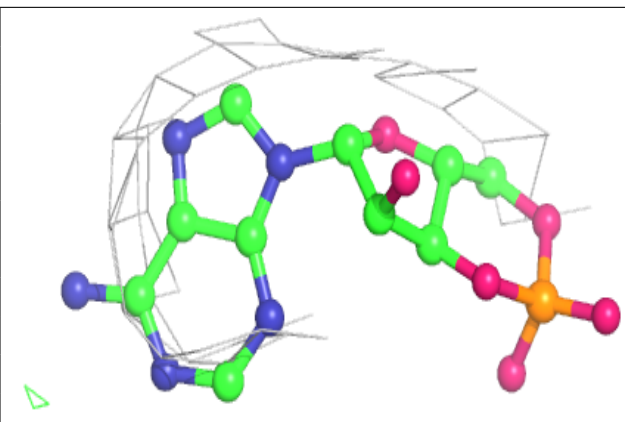
**Electron density around CMP C 401:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

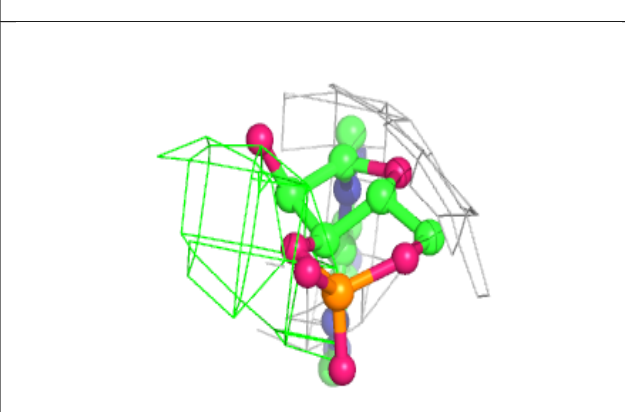
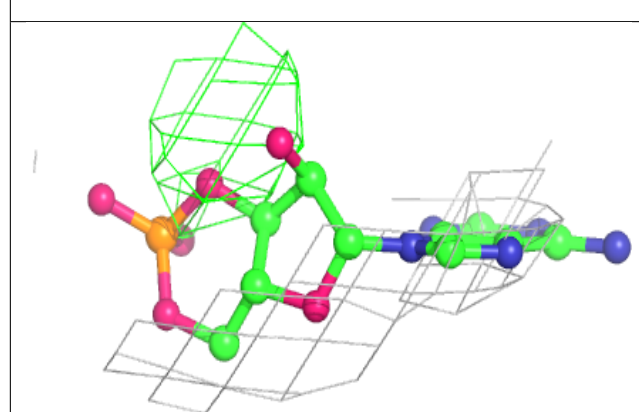
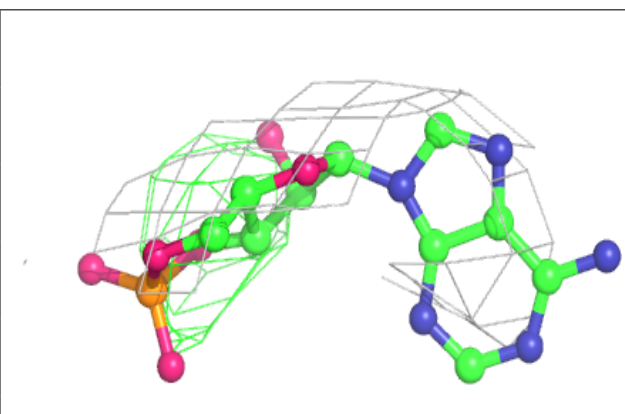


Electron density around CMP E 402:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

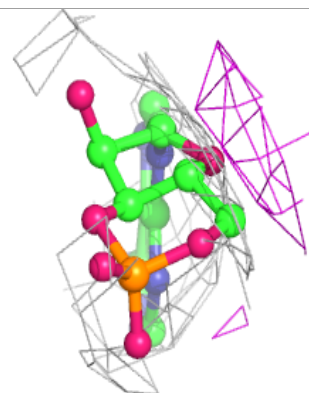
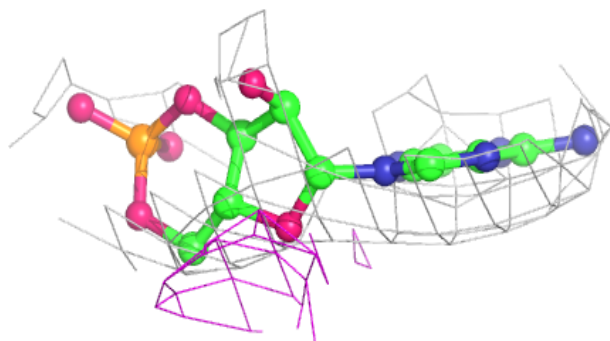
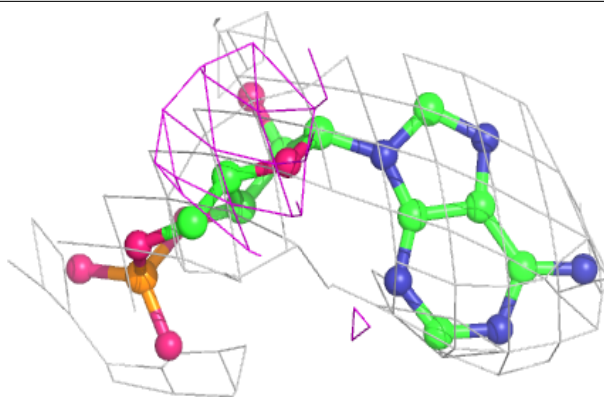
**Electron density around CMP G 402:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

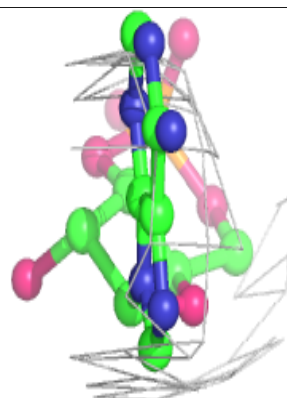
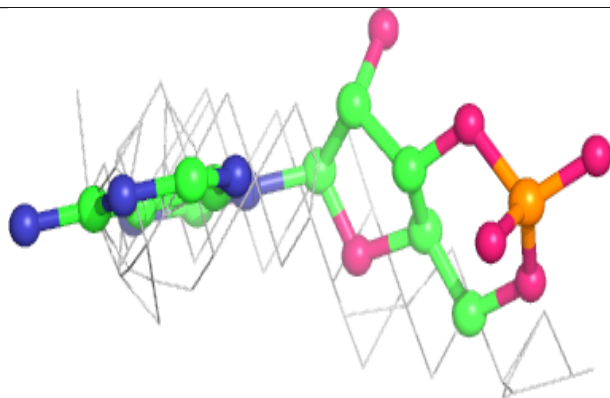
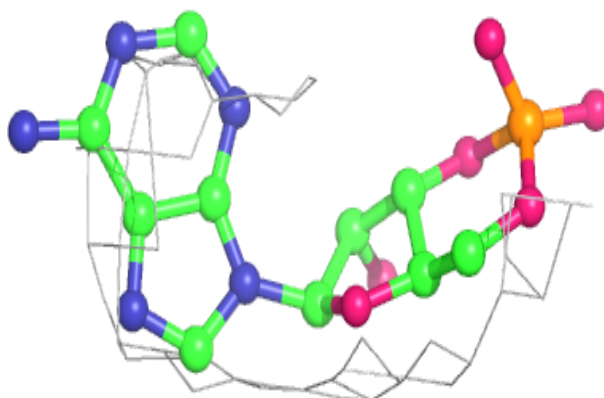


Electron density around CMP H 401:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

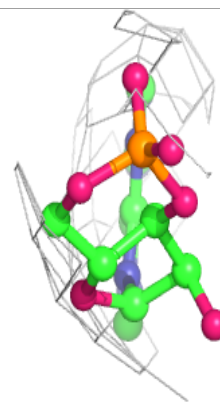
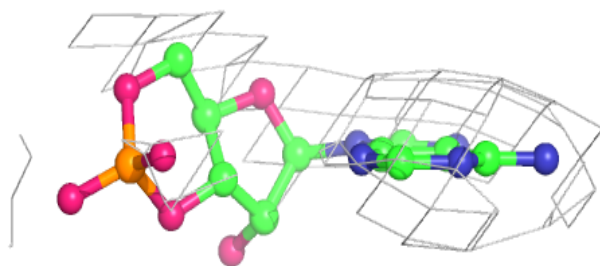
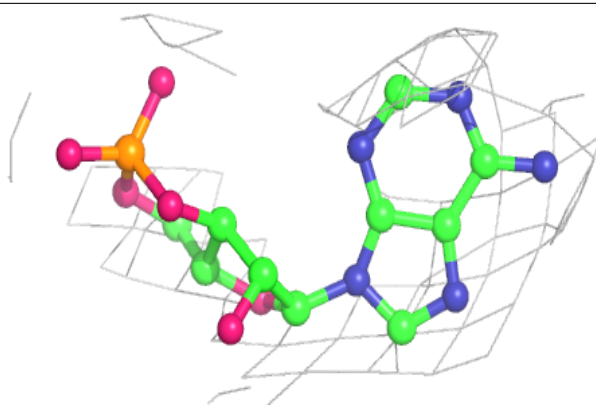
**Electron density around CMP F 402:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

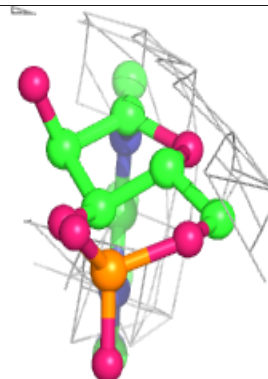
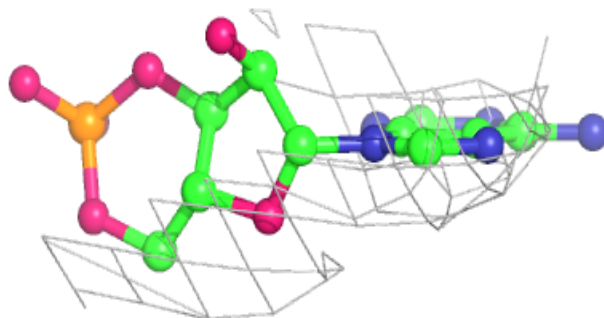
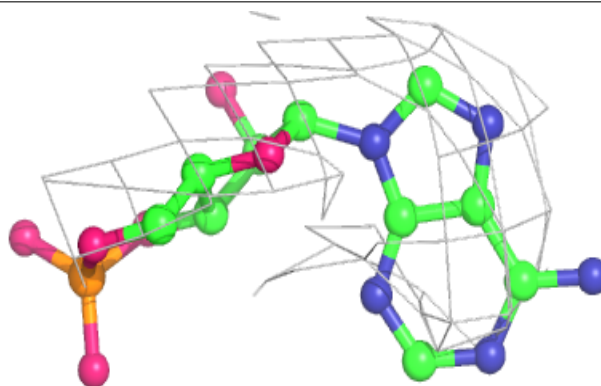


Electron density around CMP G 401:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

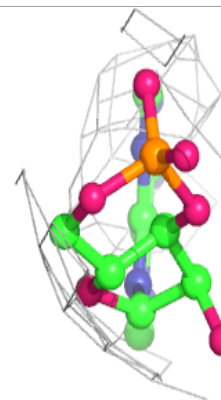
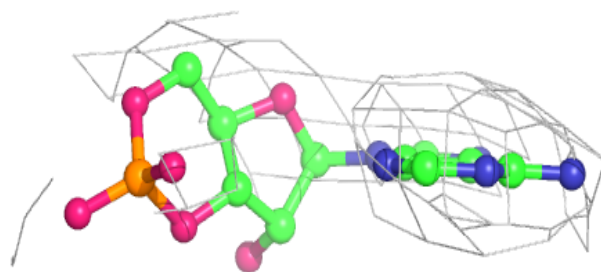
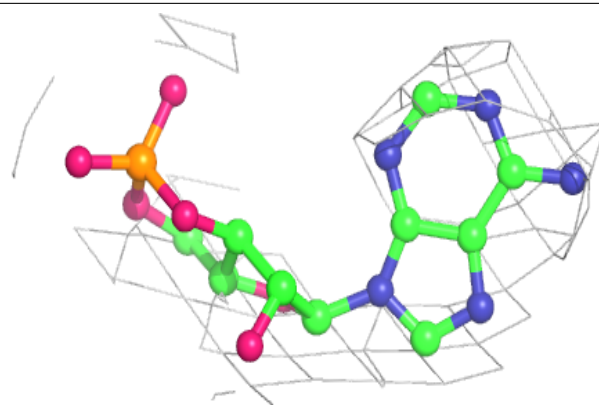
**Electron density around CMP D 402:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

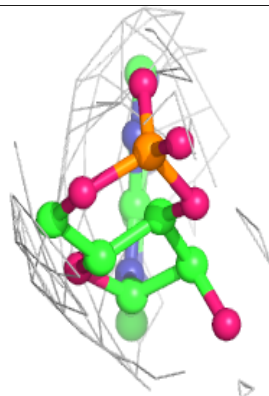
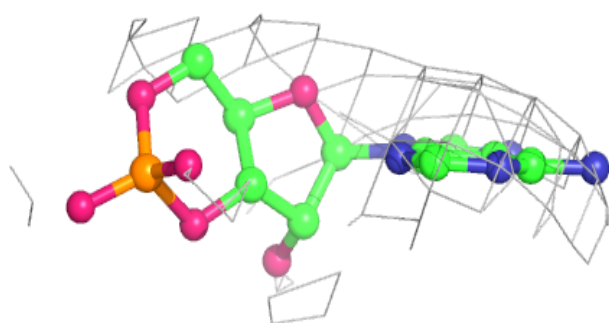
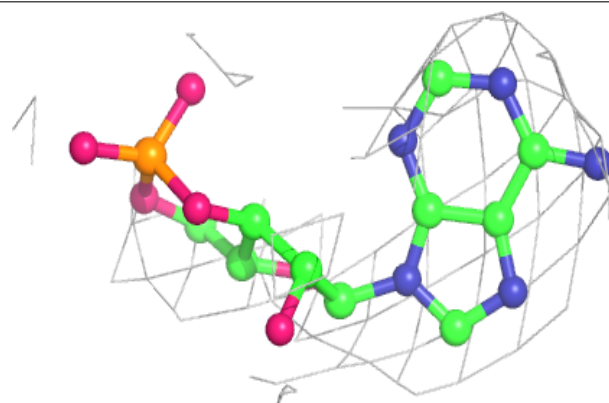


Electron density around CMP D 401:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

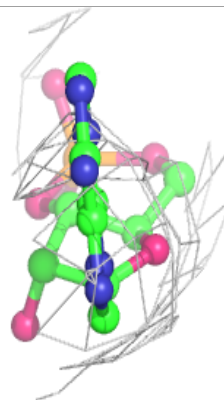
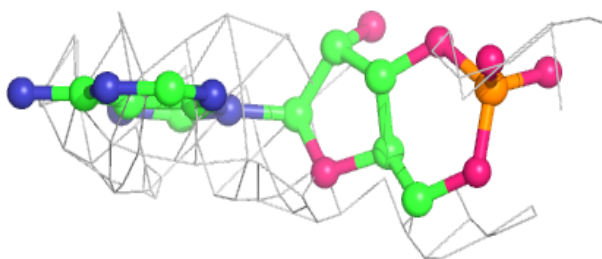
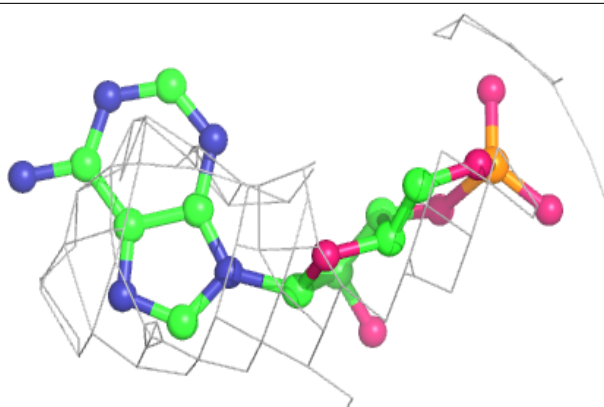
**Electron density around CMP B 401:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

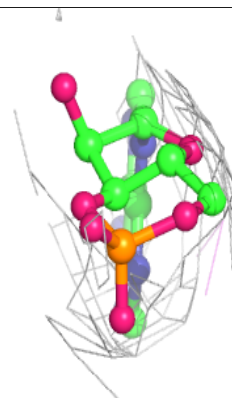
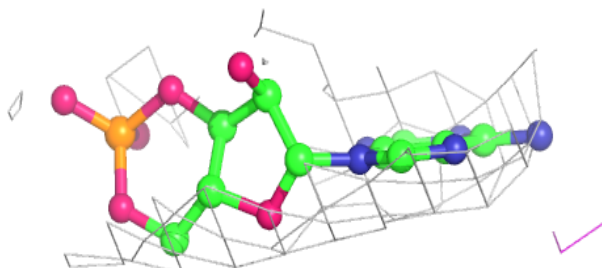
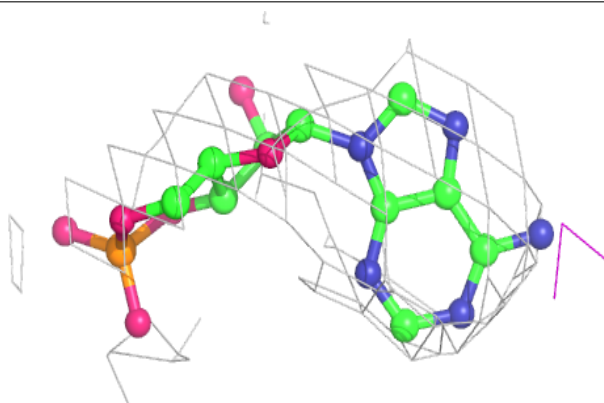


Electron density around CMP C 402:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

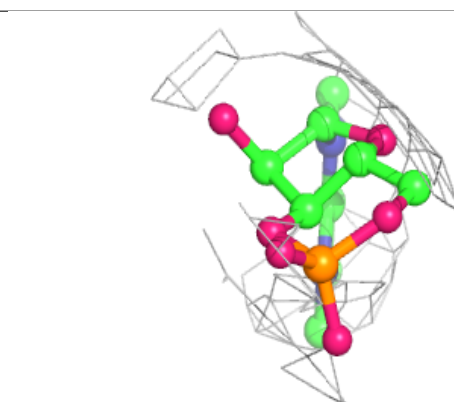
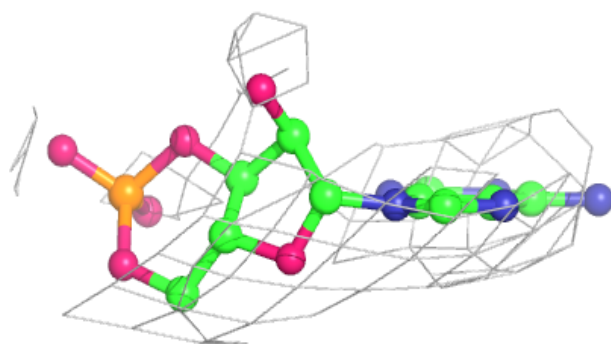
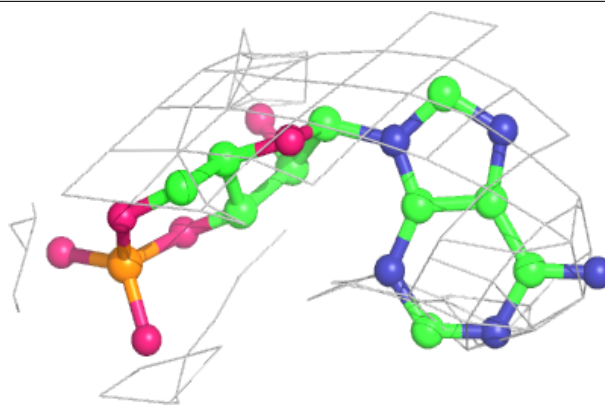
**Electron density around CMP A 401:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

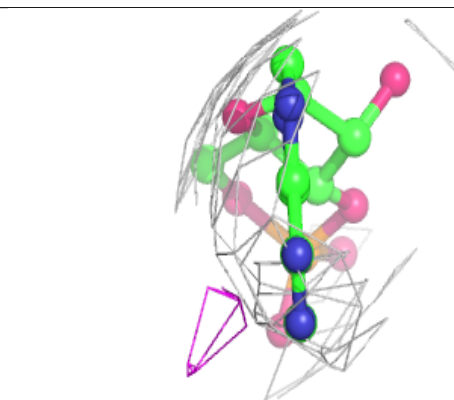
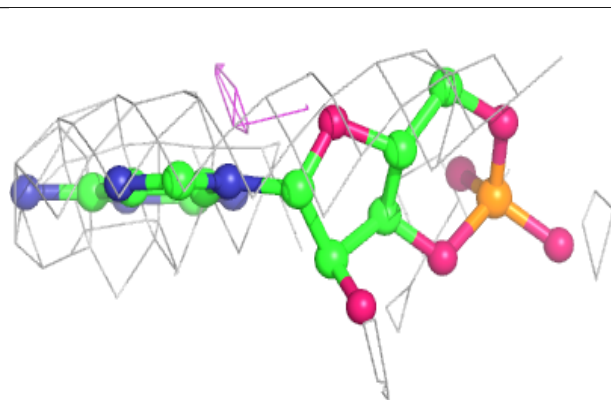
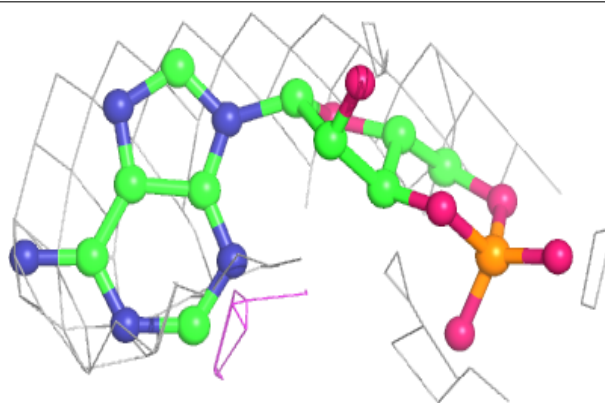


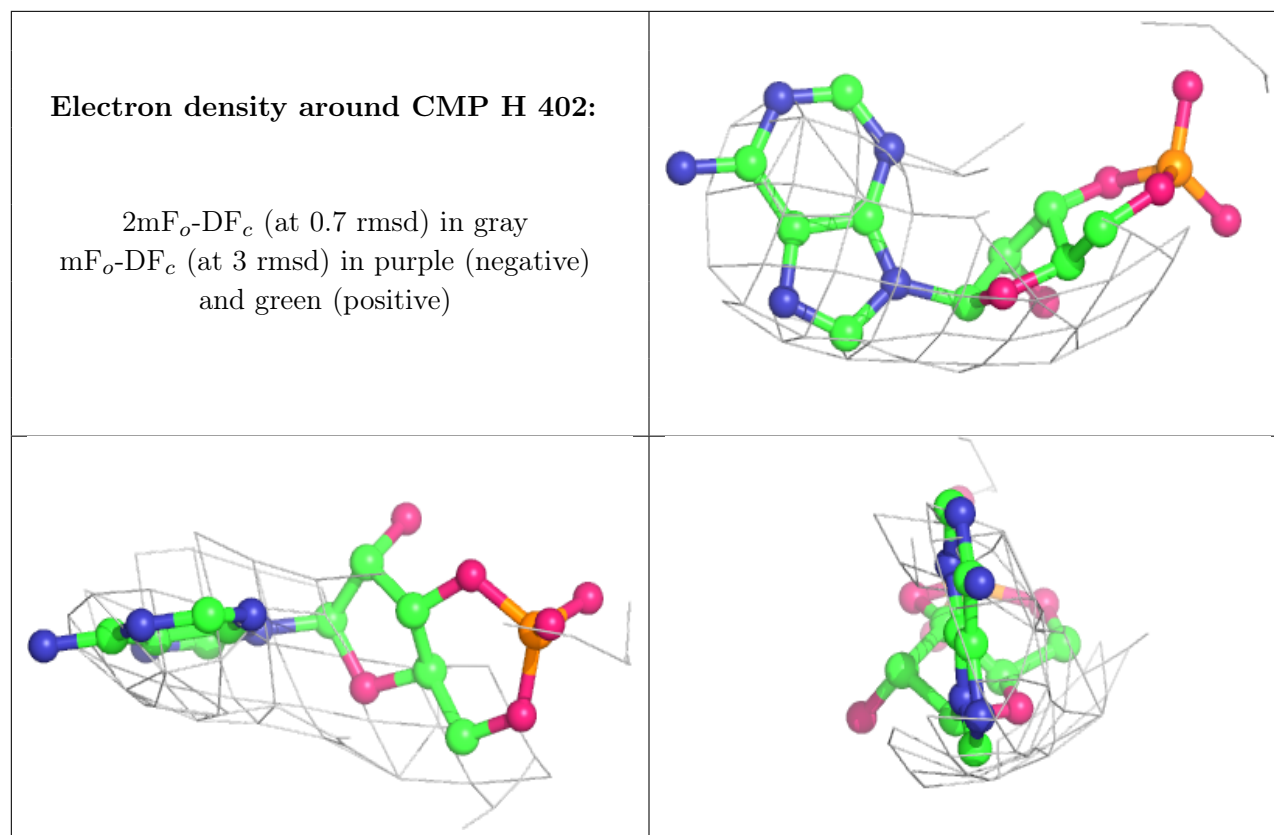
Electron density around CMP E 401:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around CMP F 401:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





6.5 Other polymers [i](#)

There are no such residues in this entry.