



# Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 06:30 PM UTC

PDB ID : 3KLS / pdb\_00003kls  
Title : Structure of complement C5 in complex with SSL7  
Authors : Laursen, N.S.; Gordon, N.; Hermans, S.; Lorenz, N.; Jackson, N.; Wines, B.;  
Spillner, E.; Christensen, J.B.; Jensen, M.; Fredslund, F.; Bjerre, M.; Sottrup-  
Jensen, L.; Fraser, J.D.; Andersen, G.R.  
Deposited on : 2009-11-09  
Resolution : 3.60 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](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4-5-2 with Phenix2.0  
Mogul : 2022.3.0, CSD as543be (2022)  
Xtriage (Phenix) : 2.0  
EDS : 3.0  
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)  
CCP4 : 9.0.010 (Gargrove)  
Density-Fitness : 1.0.12  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.49

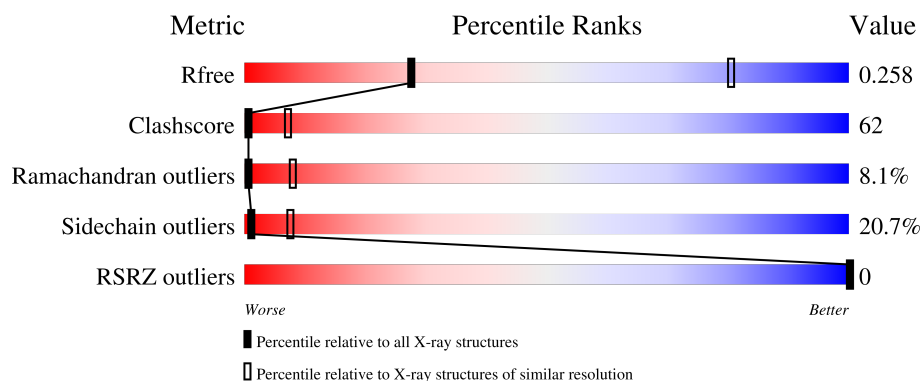
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

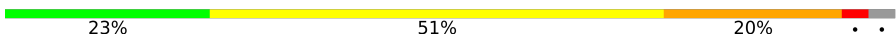
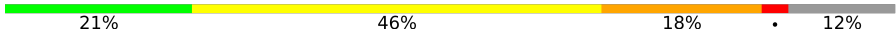
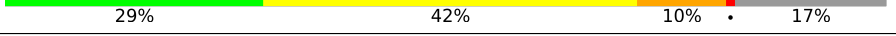
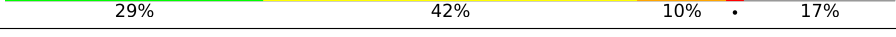
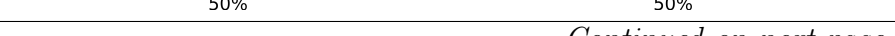
The reported resolution of this entry is 3.60 Å.

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))
$R_{free}$	180053	1747 (3.70-3.50)
Clashscore	190562	1827 (3.70-3.50)
Ramachandran outliers	187476	1773 (3.70-3.50)
Sidechain outliers	187428	1772 (3.70-3.50)
RSRZ outliers	180081	1745 (3.70-3.50)

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  $\geq 3$ , 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	1676	
1	B	1676	
2	X	231	
2	Y	231	
3	C	2	

*Continued on next page...*

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Mol	Chain	Length	Quality of chain
3	D	2	 50%50%

## 2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 27683 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 Complement C5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1622	Total	C	N	O	S	0	0	0
			12836	8224	2107	2452	53			
1	B	1478	Total	C	N	O	S	0	0	0
			11676	7478	1926	2226	46			

- Molecule 2 is a protein called Exotoxin 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	X	191	Total	C	N	O	S	0	0	0
			1539	965	267	306	1			
2	Y	191	Total	C	N	O	S	0	0	0
			1539	965	267	306	1			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
X	35	GLY	GLU	engineered mutation	UNP Q6GJP2
Y	35	GLY	GLU	engineered mutation	UNP Q6GJP2

- Molecule 3 is an oligosaccharide called 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.

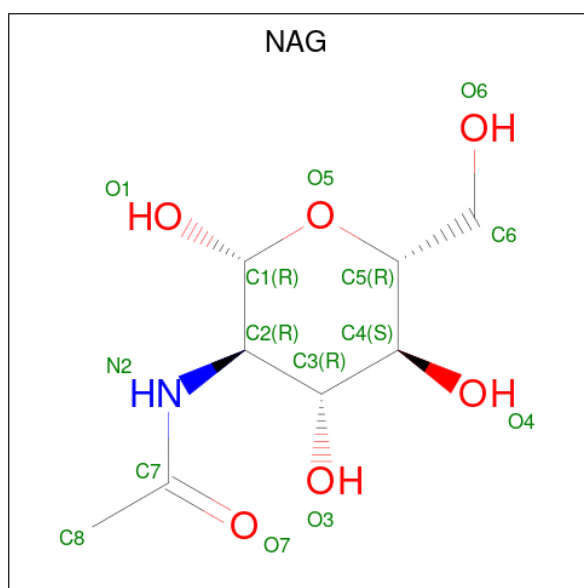


Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
3	C	2	Total	C	N	O	0	0	0
			28	16	2	10			
3	D	2	Total	C	N	O	0	0	0
			28	16	2	10			

- Molecule 4 is CADMIUM ION (CCD ID: CD) (formula: Cd).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	5	Total	Cd	0	0
			5	5		
4	B	4	Total	Cd	0	0
			4	4		

- Molecule 5 is 2-acetamido-2-deoxy-beta-D-glucopyranose (CCD ID: NAG) (formula: C<sub>8</sub>H<sub>15</sub>NO<sub>6</sub>).

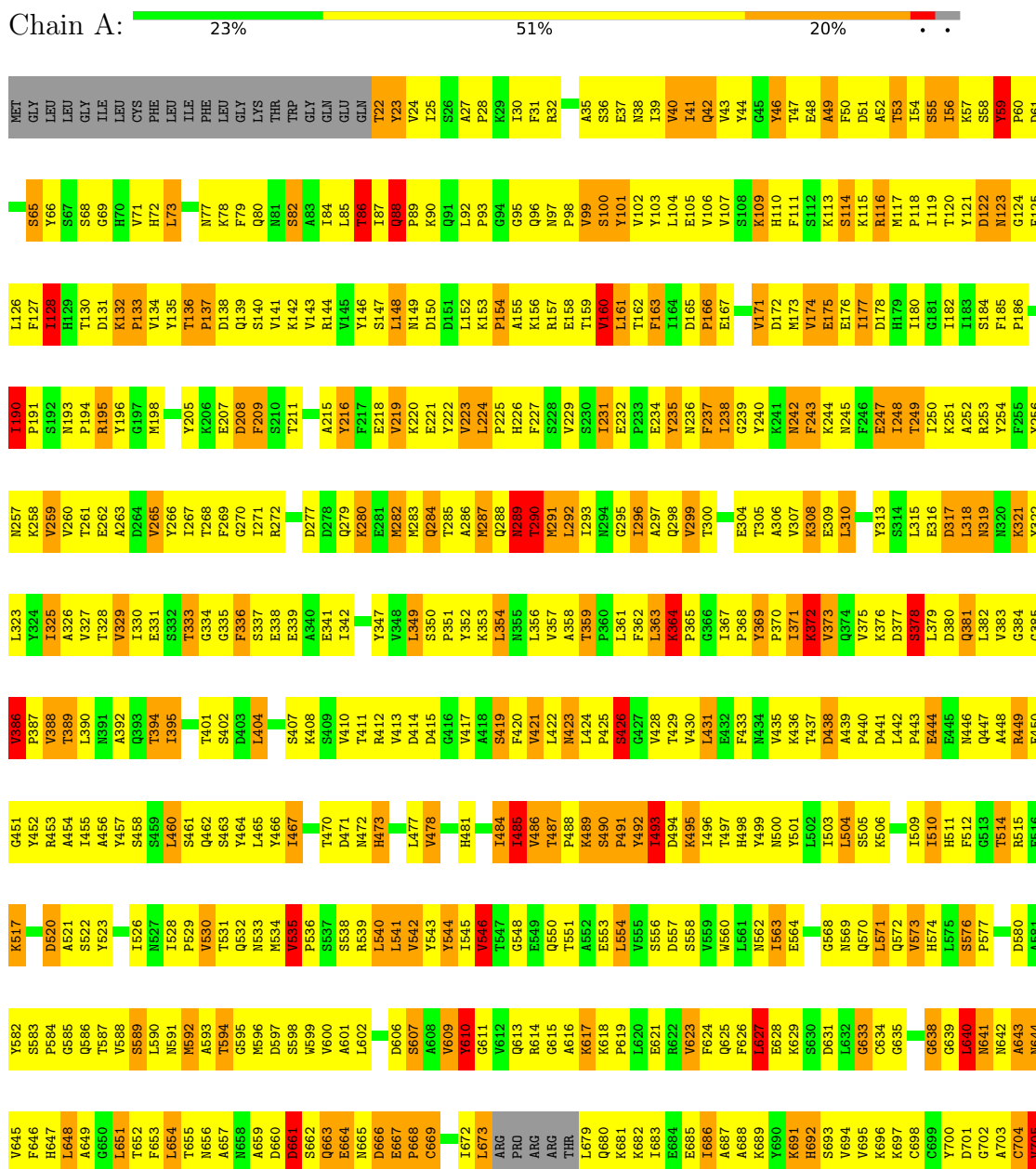


Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
5	A	1	Total	C	N	O	0	0
			14	8	1	5		
5	B	1	Total	C	N	O	0	0
			14	8	1	5		

### 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.

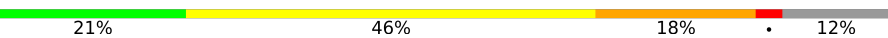
#### • Molecule 1: Complement C5



V1612	K1613	G1614	R1615	G1616	V1617	L1618	L1619	M1620	G1621	K1622	K1623	A1624	E1625	L1626	Q1627	S1628	T1629	L1630	F1631	S1632	F1633	R1634	Y1635	T1636	Y1637	P1638	L1639		L1642	T1643	V1644	I1645	E1646	V1647	W1648	P1649	R1650	D1651	T1652	R1653	C1654	S1655	S1656	C1657	Q1658	A1659	F1660	L1661	A1662	N1663	L1664	G1665	P1666	P1667	A1668	E1669	D1670	L1671					
R1548	T1551	C1552	C1553	P1554	P1555	E1556	E1557	A1558	Y1559	K1560	A1561	K1562	S1563	S1564	T1565	T1566	S1567	L1568	T1569		V1573	F1574	Y1575	K1576	Y1577	L1578	L1579	L1580	L1581	L1582	D1583	Y1584		G1588	E1589	D1590	V1591	A1592	E1593	L1594	D1595	S1596	E1597	Q1598	F1599	F1600	L1601	K1602	K1603	L1604	G1605	V1606	F1607	L1608	A1609	E1610	L1611						
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W706	W707	D708	E709	W710	C711	E712	Q713	R714	A715	R716	R717	L718	S719	L720	G721	R722	P723	C724		F728	T729	E730		V733	V734	A735	S736	Q737	L738	R739		I742	S743	HIS	LYS	ASP	MET	GLN	L749	G750	R751	V815		K818	R819	F820	K821	D822	V823	F824	L825	E826	M827	N828	R829	S830	V833	P770	R835				
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C836	E837	Q838	I839	Q840	L841	Q842	G843	T844	Y845	Y846	Y847	Y848		M853	Q854	F855	C856	W857	K858	M859	K920	G921	R922	L923	V924	K925	A861	T926	M1053	L927	E863		T867	S870	PRO	VAL	ILE	ASP	HIS	GLN	SER	K882	C883	V884	Q886	K887	E889		S892	S893	H894	L895	R896	T897	R898	T899	V900	L901	P902				
L903	E904	I905	G906	L907	H908	N909	I910	N911	F912	S913	L914	E915	T916	W917		K920	G921	R922	L923	V924	K925	A861	T926	M1053	L927	E863		T867	S870	PRO	VAL	ILE	ASP	HIS	GLN	SER	K882	C883	V884	Q886	K887	E889		S892	S893	H894	L895	R896	T897	R898	T899	V900	L901	P902									
P964	L965	D966	L967	V968	Q969	Q970	T971	E972		R975	I976	L977	S978			K980	G981	L982	L983	V984	G985	E986	L987	L988		V991		Q994	E995	G996	I997		L1000	T1001	H1002	L1003	P1004	S1065	Y1066	S1067	V1068	W1069	K1070	G1071	G1072	S1073	A1074	V1015	Y1016	W1017	W1018	F1019	Y1020	V1021	R955	R956	H1023	I1024	E958	L1025	E1026	T1027	N1029
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L1673
N1674
G1675
C1676

● Molecule 1: Complement C5

Chain B: 

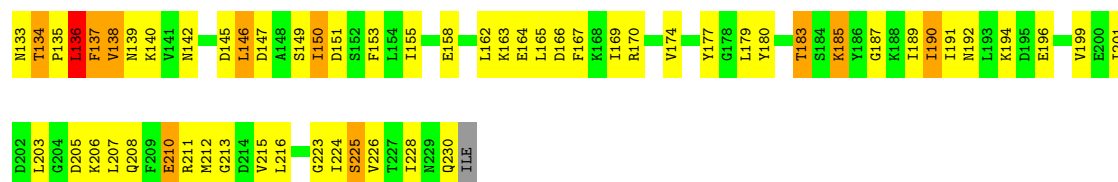
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Y768	F769	P770	W773	L774	R775	E776	L777	H778	L779	T780	R781	R782	R783	R784	Q785	L786	Q787	F788	A789	L790	R791	C792	F728	T729	L794	T795	R796	L797	T798	T799	Q800	G801	L802	G803	L804	S805					I809	G810	ASP	THR	LYS	A812	P813	T814	R815	K818	R819	R820	K821	D822	R823	F824	L825	E826	M827	N828	L829	R830	R831	R832	R833	R834	R835	R836	R837	R838	R839	R840																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
G702	A703	C704	V705	N706	T707	D708	E709	T710	T711	E712	Q713	R714	A715	T716	R717	I718	S719	L720	D721	P722	R723	C724	F728	T729	L794	T795	R796	L797	T798	T799	Q800	G801	L802	G803	L804	S805					I809	G810	ASP	THR	LYS	A812	P813	T814	R815	K818	R819	R820	K821	D822	R823	F824	L825	E826	M827	N828	L829	R830	R831	R832	R833	R834	R835	R836	R837	R838	R839	R840																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
N641	A642	A643	E644	V645	F646	F647	L648	A649	G650	L651	T652	F653	T654	T655	G656	A657	M658	A659	D660	G661	Q662	E663	N665			D606	S607	A608	C609																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														



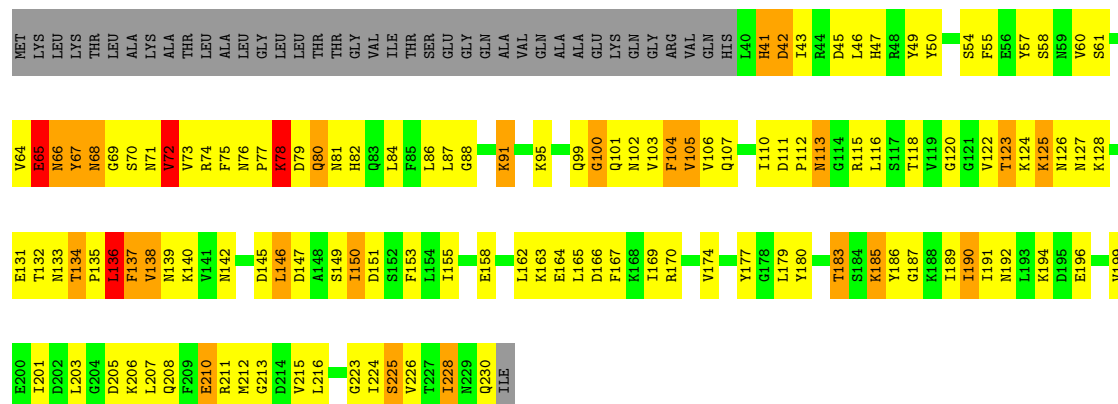
- Molecule 2: Exotoxin 1

Chain X:  29% 42% 10% 17%

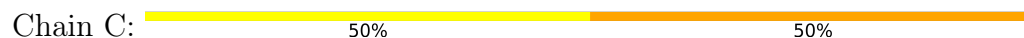
V64	E65	M66	Y67	N68	G69	S70	M71	V72	R73	R74	F75	M76	P77	K78	D79	Q80	N81	H82	Q83	L84	F85	L86	L87	G88	K91	Q99	G100	Q101	M102	V103	F104	V105	V106	Q107	I110	D111	P112	N113	G114	R115	L116	S117	T118	V119	G120	G121	T123	K124	K125	M126	M127	K128	E131	P132		
NET	LYS	LEU	LYS	THR	LEU	ALA	LYS	THR	ALA	LEU	LEU	GLY	LEU	LEU	THR	THR	GLY	VAL	ILE	THR	SER	GLU	GLY	GLN	ALA	VAL	GLN	ALA	GLU	GLU	LYS	GLN	GLY	ARG	VAL	GLN	HIS	L40	H41	D42	L43	H44	D45	L46	H47	H48	Y49	Y50	S54	F55	S56	F57	S58	N59	V60	S61



### • Molecule 2: Exotoxin 1



### • Molecule 3: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



### • Molecule 3: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 31	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	143.88Å 143.88Å 241.24Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	29.05 – 3.60 29.05 – 3.60	Depositor EDS
% Data completeness (in resolution range)	99.5 (29.05-3.60) 99.6 (29.05-3.60)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	0.09	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.39 (at 3.65Å)	Xtriage
Refinement program	PHENIX (phenix.refine)	Depositor
R, $R_{free}$	0.198 , 0.263 0.193 , 0.258	Depositor DCC
$R_{free}$ test set	3224 reflections (4.99%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	111.0	Xtriage
Anisotropy	0.346	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.29 , 158.4	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.47$ , $\langle L^2 \rangle = 0.30$	Xtriage
Estimated twinning fraction	0.025 for -h,-k,l 0.410 for h,-h-k,-l 0.028 for -k,-h,-l	Xtriage
$F_o, F_c$ correlation	0.94	EDS
Total number of atoms	27683	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	156.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.55% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical 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: CD, NAG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	A	0.75	5/13111 (0.0%)	1.20	97/17784 (0.5%)
1	B	0.77	6/11928 (0.1%)	1.21	78/16183 (0.5%)
2	X	0.46	0/1560	0.90	3/2096 (0.1%)
2	Y	0.46	1/1560 (0.1%)	0.91	4/2096 (0.2%)
All	All	0.73	12/28159 (0.0%)	1.17	182/38159 (0.5%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	4
1	B	0	2
All	All	0	6

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	1313	ILE	CA-CB	-6.39	1.47	1.54
1	A	238	ILE	CA-CB	-6.34	1.46	1.54
1	A	1313	ILE	CA-CB	-5.89	1.48	1.54
1	B	1218	VAL	CA-CB	-5.59	1.47	1.55
1	B	1056	ILE	CA-CB	5.36	1.61	1.54
1	B	238	ILE	CA-CB	-5.35	1.47	1.54
1	A	1068	VAL	CA-CB	-5.31	1.47	1.54
1	B	1264	ILE	CA-CB	-5.31	1.47	1.54
2	Y	68	ASN	CA-C	5.19	1.55	1.52
1	B	976	ILE	CA-CB	-5.18	1.47	1.54
1	A	371	ILE	CA-CB	5.10	1.61	1.54
1	A	1056	ILE	CA-CB	5.04	1.61	1.54

All (182) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1003	LEU	CA-C-N	14.89	135.08	119.90
1	B	1003	LEU	C-N-CA	14.89	135.08	119.90
1	A	1003	LEU	CA-C-N	14.87	135.07	119.90
1	A	1003	LEU	C-N-CA	14.87	135.07	119.90
1	A	1634	ARG	N-CA-C	14.19	122.37	108.75
1	A	369	TYR	CA-C-N	12.03	132.99	119.99
1	A	369	TYR	C-N-CA	12.03	132.99	119.99
1	B	369	TYR	CA-C-N	11.93	132.87	119.99
1	B	369	TYR	C-N-CA	11.93	132.87	119.99
1	A	359	THR	CA-C-N	11.10	131.22	119.90
1	A	359	THR	C-N-CA	11.10	131.22	119.90
1	B	359	THR	CA-C-N	10.91	131.03	119.90
1	B	359	THR	C-N-CA	10.91	131.03	119.90
1	A	934	VAL	N-CA-C	10.51	121.78	106.85
1	B	934	VAL	N-CA-C	10.33	121.52	106.85
1	B	1517	GLN	OE1-CD-NE2	-9.79	112.81	122.60
1	A	1487	PHE	CA-CB-CG	9.51	123.31	113.80
1	B	535	VAL	CA-C-N	-9.44	108.04	119.84
1	B	535	VAL	C-N-CA	-9.44	108.04	119.84
1	A	535	VAL	CA-C-N	-9.41	108.08	119.84
1	A	535	VAL	C-N-CA	-9.41	108.08	119.84
1	A	769	PHE	CA-C-N	9.38	129.44	119.78
1	A	769	PHE	C-N-CA	9.38	129.44	119.78
1	B	769	PHE	CA-C-N	9.17	129.25	119.90
1	B	769	PHE	C-N-CA	9.17	129.25	119.90
1	B	1500	ARG	CA-C-N	9.13	131.26	119.84
1	B	1500	ARG	C-N-CA	9.13	131.26	119.84
1	A	1500	ARG	CA-C-N	9.09	131.21	119.84
1	A	1500	ARG	C-N-CA	9.09	131.21	119.84
1	A	1487	PHE	N-CA-CB	8.36	124.62	110.49
1	B	1502	ASP	N-CA-C	-8.01	103.51	113.20
1	A	1576	LYS	N-CA-C	7.75	119.80	110.19
1	B	493	ILE	N-CA-C	7.73	119.85	108.65
1	A	493	ILE	N-CA-C	7.70	119.81	108.65
1	A	1502	ASP	N-CA-C	-7.70	103.89	113.20
1	B	290	THR	N-CA-C	-7.43	99.36	109.54
1	A	290	THR	N-CA-C	-7.36	99.46	109.54
1	B	1264	ILE	N-CA-C	7.16	124.24	109.34
1	B	932	GLU	N-CA-C	7.15	119.17	107.23
1	A	1636	ILE	N-CA-C	7.13	124.17	109.34
1	A	1006	GLY	N-CA-C	7.13	120.77	112.50
1	A	1264	ILE	N-CA-C	7.00	123.90	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	932	GLU	N-CA-C	6.97	118.88	107.23
1	A	666	ASP	N-CA-C	6.97	119.04	107.20
1	B	666	ASP	N-CA-C	6.93	118.99	107.20
1	B	1006	GLY	N-CA-C	6.80	120.39	112.50
2	Y	76	ASN	CA-C-N	6.75	126.89	119.87
2	Y	76	ASN	C-N-CA	6.75	126.89	119.87
2	X	76	ASN	CA-C-N	6.66	126.79	119.87
2	X	76	ASN	C-N-CA	6.66	126.79	119.87
1	B	1517	GLN	CG-CD-NE2	6.65	126.38	116.40
1	A	934	VAL	CB-CA-C	-6.65	102.89	111.53
1	A	986	GLU	N-CA-C	-6.62	103.99	111.07
1	B	986	GLU	N-CA-C	-6.56	104.05	111.07
1	A	1486	GLY	CA-C-N	6.54	134.03	121.54
1	A	1486	GLY	C-N-CA	6.54	134.03	121.54
1	B	1516	ILE	CB-CA-C	-6.53	101.96	110.84
1	A	433	PHE	N-CA-C	6.53	120.04	109.40
1	B	934	VAL	CB-CA-C	-6.51	103.06	111.53
1	A	687	ALA	N-CA-C	-6.49	105.34	113.20
1	B	1035	HIS	N-CA-C	-6.46	104.32	111.82
1	A	128	ILE	N-CA-C	6.45	117.02	107.15
1	A	1202	HIS	CA-C-N	6.43	125.93	119.24
1	A	1202	HIS	C-N-CA	6.43	125.93	119.24
1	B	687	ALA	N-CA-C	-6.40	105.46	113.20
1	B	535	VAL	N-CA-C	6.34	122.58	108.88
1	A	485	ILE	N-CA-C	6.29	117.53	107.73
1	B	433	PHE	N-CA-C	6.28	119.63	109.40
1	B	58	SER	N-CA-C	6.27	118.93	108.96
1	B	128	ILE	N-CA-C	6.27	116.74	107.15
1	A	535	VAL	N-CA-C	6.21	122.28	108.88
1	A	1637	TYR	CA-C-N	6.18	127.56	119.84
1	A	1637	TYR	C-N-CA	6.18	127.56	119.84
1	B	485	ILE	N-CA-C	6.18	117.37	107.73
1	B	1202	HIS	CA-C-N	6.13	125.62	119.24
1	B	1202	HIS	C-N-CA	6.13	125.62	119.24
1	A	160	VAL	N-CA-C	6.12	116.90	107.78
1	B	265	VAL	CB-CA-C	-6.10	102.54	110.84
1	A	58	SER	N-CA-C	6.08	118.62	108.96
1	A	1035	HIS	N-CA-C	-6.07	104.78	111.82
1	B	1033	ILE	CB-CA-C	-6.05	102.78	112.16
1	A	1283	GLY	N-CA-C	6.03	127.47	113.18
1	B	160	VAL	N-CA-C	6.02	116.74	107.78
1	B	59	TYR	CA-C-N	-6.00	113.56	120.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	59	TYR	C-N-CA	-6.00	113.56	120.04
1	B	197	GLY	N-CA-C	6.00	117.97	110.29
1	B	1283	GLY	N-CA-C	5.99	127.37	113.18
1	B	1051	GLU	N-CA-C	-5.96	104.78	111.28
1	A	1419	SER	N-CA-C	5.94	117.99	110.33
1	A	59	TYR	CA-C-N	-5.90	113.67	120.04
1	A	59	TYR	C-N-CA	-5.90	113.67	120.04
1	A	1033	ILE	CB-CA-C	-5.87	103.06	112.16
1	A	1554	LYS	CA-C-N	5.87	127.17	119.84
1	A	1554	LYS	C-N-CA	5.87	127.17	119.84
1	A	132	LYS	CA-C-N	-5.86	112.51	119.84
1	A	132	LYS	C-N-CA	-5.86	112.51	119.84
1	B	1301	SER	N-CA-C	-5.84	106.12	113.18
1	A	1451	THR	N-CA-C	-5.83	106.01	114.12
1	A	1347	ILE	CB-CA-C	-5.83	101.73	111.29
1	B	1419	SER	N-CA-C	5.79	117.37	110.19
1	A	1236	ASP	N-CA-C	-5.79	105.48	112.54
1	A	265	VAL	CB-CA-C	-5.74	103.03	110.84
1	A	1634	ARG	CB-CA-C	-5.73	108.11	116.53
1	B	1236	ASP	N-CA-C	-5.71	105.58	112.54
1	A	1195	LEU	N-CA-C	-5.68	104.47	111.40
1	A	980	LYS	N-CA-C	5.65	117.99	109.23
1	A	329	VAL	CB-CA-C	-5.64	104.20	111.53
1	A	364	LYS	N-CA-C	-5.62	102.97	109.93
1	B	190	ILE	CA-C-N	5.61	125.61	119.89
1	B	190	ILE	C-N-CA	5.61	125.61	119.89
1	A	1180	LEU	N-CA-C	5.59	122.17	109.81
1	A	1369	SER	N-CA-C	5.58	117.55	109.07
1	B	1347	ILE	CB-CA-C	-5.57	102.16	111.29
1	B	87	ILE	CB-CA-C	-5.55	105.91	111.80
1	B	248	ILE	CB-CA-C	-5.54	104.22	111.25
1	B	641	ASN	N-CA-C	-5.53	100.89	109.24
1	B	132	LYS	CA-C-N	-5.52	112.94	119.84
1	B	132	LYS	C-N-CA	-5.52	112.94	119.84
1	B	1195	LEU	N-CA-C	-5.52	105.18	111.14
1	A	1301	SER	N-CA-C	-5.51	106.51	113.18
1	B	922	ILE	N-CA-C	5.51	115.80	107.75
1	A	641	ASN	N-CA-C	-5.51	100.92	109.24
1	A	942	VAL	CB-CA-C	-5.48	100.61	110.48
1	B	449	ARG	N-CA-C	5.47	117.50	109.24
2	Y	65	GLU	CA-CB-CG	5.46	125.03	114.10
1	B	1180	LEU	N-CA-C	5.46	121.88	109.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1142	LEU	N-CA-C	-5.45	104.37	111.02
1	A	1634	ARG	CA-C-O	5.42	121.75	118.33
1	B	980	LYS	N-CA-C	5.40	117.47	108.99
1	A	386	VAL	CA-C-N	-5.38	114.43	120.14
1	A	386	VAL	C-N-CA	-5.38	114.43	120.14
1	B	329	VAL	CB-CA-C	-5.38	104.53	111.53
1	B	364	LYS	N-CA-C	-5.37	103.28	109.93
1	A	1533	GLY	N-CA-C	5.36	120.72	111.98
1	A	190	ILE	CA-C-N	5.36	125.35	119.89
1	A	190	ILE	C-N-CA	5.36	125.35	119.89
1	A	87	ILE	CB-CA-C	-5.35	106.12	111.80
1	B	1467	ILE	CA-C-N	5.34	126.52	119.84
1	B	1467	ILE	C-N-CA	5.34	126.52	119.84
1	A	223	VAL	CB-CA-C	-5.34	102.28	110.50
1	A	1350	THR	N-CA-C	5.33	117.81	110.35
2	Y	134	THR	N-CA-C	5.33	116.38	109.72
1	A	1601	ILE	N-CA-C	5.33	116.65	108.71
1	A	244	LYS	N-CA-C	-5.31	106.18	113.30
1	B	223	VAL	CB-CA-C	-5.30	102.34	110.50
1	A	922	ILE	N-CA-C	5.30	115.48	107.75
1	A	487	THR	CA-C-N	5.29	125.76	120.04
1	A	487	THR	C-N-CA	5.29	125.76	120.04
1	A	705	VAL	CB-CA-C	-5.28	102.63	111.29
1	A	1561	TYR	N-CA-C	5.28	117.21	108.13
1	B	1451	THR	N-CA-C	-5.25	106.82	114.12
1	B	947	ARG	N-CA-C	-5.25	106.19	112.59
1	A	1239	VAL	CA-C-N	5.22	126.37	119.84
1	A	1239	VAL	C-N-CA	5.22	126.37	119.84
2	X	134	THR	N-CA-C	5.22	116.24	109.72
1	B	705	VAL	CB-CA-C	-5.22	102.73	111.29
1	A	1051	GLU	N-CA-C	-5.20	105.61	111.28
1	A	88	GLN	CA-C-N	5.18	125.99	119.98
1	A	88	GLN	C-N-CA	5.18	125.99	119.98
1	B	1369	SER	N-CA-C	5.18	117.13	108.99
1	A	837	GLU	N-CA-C	-5.18	100.80	109.24
1	A	1142	LEU	N-CA-C	-5.18	104.71	111.02
1	B	1239	VAL	CA-C-N	5.17	126.31	119.84
1	B	1239	VAL	C-N-CA	5.17	126.31	119.84
1	B	942	VAL	CB-CA-C	-5.15	101.22	110.48
1	A	1305	LYS	N-CA-C	5.14	117.34	110.35
1	A	467	ILE	N-CA-C	5.13	115.87	108.48
1	B	553	GLU	N-CA-C	5.13	117.09	108.73

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	130	THR	N-CA-C	-5.12	103.28	110.50
1	B	1350	THR	N-CA-C	5.12	117.52	110.35
1	B	244	LYS	N-CA-C	-5.12	106.44	113.30
1	A	1467	ILE	CA-C-N	5.10	126.22	119.84
1	A	1467	ILE	C-N-CA	5.10	126.22	119.84
1	A	947	ARG	N-CA-C	-5.10	106.37	112.59
1	B	88	GLN	CA-C-N	5.09	125.88	119.98
1	B	88	GLN	C-N-CA	5.09	125.88	119.98
1	B	143	VAL	N-CA-C	5.08	115.69	108.42
1	A	248	ILE	CB-CA-C	-5.07	104.81	111.25
1	A	1487	PHE	N-CA-C	-5.05	100.05	110.80
1	A	546	VAL	N-CA-C	5.04	115.36	107.99
1	A	449	ARG	N-CA-C	5.03	116.84	109.24
1	A	888	VAL	CB-CA-C	-5.02	104.11	110.98

There are no chirality outliers.

All (6) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1179	THR	Peptide
1	A	1633	PHE	Peptide
1	A	1635	TYR	Peptide
1	A	651	LEU	Peptide
1	B	1179	THR	Peptide
1	B	651	LEU	Peptide

## 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	12836	0	12796	1677	1
1	B	11676	0	11649	1490	1
2	X	1539	0	1530	160	0
2	Y	1539	0	1530	161	0
3	C	28	0	25	3	0
3	D	28	0	25	2	0
4	A	5	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	B	4	0	0	0	0
5	A	14	0	13	0	0
5	B	14	0	13	0	0
All	All	27683	0	27581	3439	1

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

All (3439) 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:B:1279:ARG:HG3	1:B:1284:PHE:CB	1.60	1.32
1:B:1488:LEU:HD12	1:B:1488:LEU:O	1.31	1.30
1:A:1279:ARG:HG3	1:A:1284:PHE:CB	1.60	1.29
1:A:1486:GLY:O	1:A:1487:PHE:CD2	1.86	1.27
1:B:1323:LEU:HD12	1:B:1324:HIS:H	1.04	1.15
1:B:886:GLN:HG2	1:B:894:HIS:CD2	1.82	1.14
1:A:886:GLN:HG2	1:A:894:HIS:CE1	1.82	1.13
1:A:617:LYS:HE3	1:A:625:GLN:HE22	1.14	1.11
1:A:386:VAL:H	1:A:411:THR:HG22	1.06	1.11
1:B:617:LYS:HE3	1:B:625:GLN:HE22	1.14	1.10
1:A:1323:LEU:HD12	1:A:1324:HIS:H	1.04	1.10
1:A:987:ILE:HD13	1:A:1294:ILE:HD13	1.27	1.09
1:B:987:ILE:HD13	1:B:1294:ILE:HD13	1.29	1.08
1:A:38:ASN:ND2	2:X:150:ILE:HG12	1.68	1.08
1:A:38:ASN:HD21	2:X:150:ILE:HG12	0.96	1.08
1:B:38:ASN:HD21	2:Y:150:ILE:HG12	1.00	1.08
1:B:1279:ARG:CG	1:B:1284:PHE:HB2	1.84	1.07
1:A:25:ILE:HB	1:A:654:LEU:HB3	1.37	1.07
1:A:1279:ARG:CG	1:A:1284:PHE:HB2	1.84	1.07
1:B:386:VAL:H	1:B:411:THR:HG22	1.09	1.07
1:A:307:VAL:CG1	1:A:313:TYR:HB2	1.84	1.06
1:A:1612:VAL:HB	1:A:1615:ARG:HD2	1.35	1.06
1:A:1229:LYS:HD2	1:A:1239:VAL:HG12	1.35	1.06
1:B:38:ASN:ND2	2:Y:150:ILE:HG12	1.70	1.05
1:A:922:ILE:HD12	3:C:1:NAG:H82	1.33	1.05
1:A:1096:ASN:ND2	1:A:1099:SER:H	1.54	1.05
1:B:307:VAL:CG1	1:B:313:TYR:HB2	1.86	1.04
2:Y:43:ILE:HD12	2:Y:185:LYS:HE2	1.38	1.04
1:B:1096:ASN:ND2	1:B:1099:SER:H	1.53	1.04
1:B:1423:VAL:HG22	1:B:1496:TYR:CE1	1.92	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:439:ALA:HB3	1:A:447:GLN:HE22	1.21	1.04
1:A:1423:VAL:HG22	1:A:1496:TYR:CE1	1.94	1.03
1:A:1068:VAL:HG13	1:A:1069:TRP:H	1.22	1.03
1:B:1229:LYS:HD2	1:B:1239:VAL:HG12	1.36	1.02
1:A:1675:GLY:O	1:A:1676:CYS:SG	2.17	1.02
1:A:835:ARG:HG2	1:A:835:ARG:HH11	1.25	1.02
1:B:1068:VAL:HG13	1:B:1069:TRP:H	1.23	1.02
1:B:25:ILE:HB	1:B:654:LEU:HB3	1.41	1.02
2:X:43:ILE:HD12	2:X:185:LYS:HE2	1.38	1.01
1:A:115:LYS:HG2	1:A:117:MET:HE3	1.43	1.01
1:B:835:ARG:HG2	1:B:835:ARG:HH11	1.25	1.00
1:A:1488:LEU:HD12	1:A:1488:LEU:O	1.60	1.00
1:B:1202:HIS:CD2	1:B:1203:PRO:HD2	1.98	0.99
1:A:1565:ILE:HG12	1:A:1611:LEU:HD13	1.41	0.99
1:A:386:VAL:H	1:A:411:THR:CG2	1.75	0.99
1:B:855:PHE:HZ	1:B:894:HIS:CD2	1.82	0.98
1:B:115:LYS:HG2	1:B:117:MET:HE3	1.40	0.98
1:B:617:LYS:O	1:B:618:LYS:HG2	1.62	0.98
1:A:617:LYS:O	1:A:618:LYS:HG2	1.62	0.98
1:B:535:VAL:HG23	1:B:536:PRO:HD3	1.43	0.98
1:A:1202:HIS:CD2	1:A:1203:PRO:HD2	1.98	0.97
1:A:535:VAL:HG23	1:A:536:PRO:HD3	1.44	0.97
1:A:886:GLN:HG2	1:A:894:HIS:ND1	1.77	0.97
1:A:1673:LEU:HB2	1:B:258:LYS:HG3	1.48	0.96
1:B:171:VAL:HG13	1:B:1057:MET:HE3	1.42	0.96
1:B:55:SER:HB3	1:B:68:SER:HB3	1.48	0.95
1:A:160:VAL:HG23	1:A:175:GLU:HB3	1.48	0.95
1:B:1084:ARG:O	1:B:1088:GLN:HG3	1.66	0.95
1:B:386:VAL:H	1:B:411:THR:CG2	1.78	0.95
1:A:1323:LEU:CD1	1:A:1324:HIS:H	1.80	0.95
1:A:439:ALA:HB3	1:A:442:LEU:HB2	1.46	0.94
1:A:55:SER:HB3	1:A:68:SER:HB3	1.49	0.94
1:A:895:LEU:HD13	1:A:1555:PRO:HB2	1.48	0.94
1:A:1636:ILE:HG13	1:A:1637:TYR:H	1.32	0.94
1:A:1084:ARG:O	1:A:1088:GLN:HG3	1.66	0.94
1:A:171:VAL:HG13	1:A:1057:MET:HE3	1.47	0.94
2:Y:142:ASN:HB3	2:Y:145:ASP:HB2	1.49	0.94
1:A:386:VAL:N	1:A:411:THR:HG22	1.82	0.94
1:B:618:LYS:HG3	1:B:621:GLU:CD	1.93	0.94
1:B:1279:ARG:HG3	1:B:1284:PHE:HB2	0.94	0.94
1:A:1279:ARG:HG3	1:A:1284:PHE:HB2	0.95	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1323:LEU:HD12	1:A:1324:HIS:N	1.83	0.93
1:B:242:ASN:H	1:B:242:ASN:HD22	1.10	0.93
1:A:1423:VAL:HG22	1:A:1496:TYR:HE1	1.33	0.93
1:A:389:THR:HG23	1:A:408:LYS:HE2	1.48	0.93
1:A:1633:PHE:HD1	1:A:1634:ARG:HG2	1.32	0.93
1:B:1023:HIS:HD2	1:B:1092:TYR:OH	1.51	0.93
1:B:1423:VAL:HG22	1:B:1496:TYR:HE1	1.31	0.93
1:A:1023:HIS:HD2	1:A:1092:TYR:OH	1.50	0.93
1:A:1674:ASN:HA	1:B:258:LYS:HZ2	1.31	0.93
1:B:1323:LEU:CD1	1:B:1324:HIS:H	1.82	0.93
1:A:467:ILE:HD12	1:A:484:ILE:HD11	1.51	0.92
1:B:439:ALA:HB3	1:B:447:GLN:HE22	1.31	0.92
1:A:618:LYS:HG3	1:A:621:GLU:CD	1.94	0.92
1:B:123:ASN:C	1:B:123:ASN:HD22	1.78	0.91
2:X:142:ASN:HB3	2:X:145:ASP:HB2	1.49	0.91
1:B:1488:LEU:HD12	1:B:1488:LEU:C	1.95	0.91
1:B:160:VAL:HG23	1:B:175:GLU:HB3	1.50	0.91
1:B:467:ILE:HD12	1:B:484:ILE:HD11	1.50	0.91
1:B:439:ALA:HB3	1:B:442:LEU:HB2	1.51	0.91
1:A:242:ASN:HD22	1:A:242:ASN:H	1.09	0.91
1:B:1323:LEU:HD12	1:B:1324:HIS:N	1.84	0.91
1:B:271:ILE:HG22	1:B:272:ARG:H	1.35	0.90
1:B:1488:LEU:O	1:B:1488:LEU:CD1	2.18	0.90
1:B:1334:LEU:HD22	1:B:1334:LEU:H	1.37	0.90
1:B:386:VAL:N	1:B:411:THR:HG22	1.85	0.90
1:A:1577:TYR:O	1:A:1599:THR:HG23	1.72	0.90
1:A:1538:GLU:O	1:A:1539:LEU:HG	1.72	0.90
1:A:1603:LYS:HG3	1:A:1604:VAL:N	1.87	0.89
1:A:271:ILE:HG22	1:A:272:ARG:H	1.34	0.89
1:B:1233:GLN:HA	1:B:1235:LYS:NZ	1.86	0.89
1:A:1233:GLN:HA	1:A:1235:LYS:NZ	1.85	0.89
1:B:1200:LYS:HE3	1:B:1261:LEU:HD23	1.53	0.89
1:A:1100:ILE:HG21	1:A:1158:ILE:HD12	1.54	0.89
1:A:1334:LEU:H	1:A:1334:LEU:HD22	1.38	0.89
1:A:571:LEU:HD12	1:A:572:GLN:N	1.87	0.89
1:A:59:TYR:HB3	1:A:60:PRO:HD3	1.54	0.89
1:A:85:LEU:O	1:A:86:THR:HB	1.73	0.89
1:B:59:TYR:CD1	1:B:103:TYR:HE1	1.91	0.88
1:A:1486:GLY:O	1:A:1487:PHE:HD2	1.49	0.88
1:A:560:TRP:CH2	1:A:562:ASN:HB2	2.09	0.88
1:B:85:LEU:O	1:B:86:THR:HB	1.72	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:412:ARG:HB3	1:B:415:ASP:HB3	1.55	0.88
1:B:571:LEU:HD12	1:B:572:GLN:N	1.89	0.88
1:A:59:TYR:HD1	1:A:103:TYR:HE1	1.22	0.88
1:A:1564:SER:HB2	1:A:1616:GLN:HG2	1.53	0.88
1:B:906:GLY:O	1:B:908:HIS:CE1	2.27	0.88
1:B:389:THR:HG23	1:B:408:LYS:HE2	1.54	0.88
1:B:609:VAL:HG23	1:B:610:TYR:H	1.39	0.88
1:A:855:PHE:HZ	1:A:894:HIS:ND1	1.70	0.88
1:B:59:TYR:HD1	1:B:103:TYR:HE1	1.20	0.87
1:A:609:VAL:HG23	1:A:610:TYR:H	1.40	0.87
1:B:560:TRP:CH2	1:B:562:ASN:HB2	2.08	0.87
1:A:136:THR:HG21	1:A:222:TYR:HB2	1.56	0.87
1:A:1012:LEU:O	1:A:1015:VAL:HG12	1.75	0.87
1:B:367:ILE:HG21	1:B:466:TYR:CD2	2.08	0.87
1:A:232:GLU:OE2	1:A:251:LYS:HE2	1.74	0.87
1:A:412:ARG:HB3	1:A:415:ASP:HB3	1.55	0.87
1:A:1674:ASN:HA	1:B:258:LYS:NZ	1.89	0.87
1:B:136:THR:HG21	1:B:222:TYR:HB2	1.57	0.87
1:B:1012:LEU:O	1:B:1015:VAL:HG12	1.73	0.87
1:A:23:TYR:HA	1:A:43:VAL:HG23	1.55	0.86
1:A:59:TYR:CD1	1:A:103:TYR:HE1	1.92	0.86
1:B:59:TYR:HB3	1:B:60:PRO:HD3	1.54	0.86
1:B:1488:LEU:C	1:B:1488:LEU:CD1	2.48	0.86
1:B:242:ASN:H	1:B:242:ASN:ND2	1.73	0.86
1:B:1381:ILE:HD13	1:B:1509:TYR:CD1	2.10	0.86
1:B:1486:GLY:O	1:B:1487:PHE:C	2.18	0.86
1:A:367:ILE:HG21	1:A:466:TYR:CD2	2.09	0.86
1:A:977:LEU:HD12	1:A:1361:VAL:CG2	2.05	0.86
1:A:1200:LYS:HE3	1:A:1261:LEU:HD23	1.56	0.86
1:A:906:GLY:O	1:A:908:HIS:CE1	2.29	0.86
1:B:42:GLN:HG3	1:B:80:GLN:HE21	1.40	0.86
1:A:1381:ILE:HD13	1:A:1509:TYR:CD1	2.11	0.86
1:B:160:VAL:O	1:B:160:VAL:HG12	1.75	0.85
1:A:198:MET:HA	1:A:198:MET:HE2	1.56	0.85
1:B:982:LEU:N	1:B:982:LEU:HD23	1.89	0.85
2:X:57:TYR:HD2	2:X:58:SER:H	1.25	0.85
1:A:123:ASN:C	1:A:123:ASN:HD22	1.79	0.85
1:B:23:TYR:HA	1:B:43:VAL:HG23	1.56	0.85
1:B:886:GLN:HG2	1:B:894:HIS:HD2	1.39	0.85
1:B:710:THR:HG23	1:B:713:GLN:CD	2.02	0.84
1:A:1427:SER:OG	1:A:1491:ALA:HB1	1.75	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1657:CYS:O	1:A:1658:GLN:HB2	1.74	0.84
1:A:1585:TYR:HB3	1:A:1671:ILE:HG12	1.60	0.84
1:B:1115:ASN:ND2	1:B:1117:SER:H	1.76	0.84
1:B:1100:ILE:HG21	1:B:1158:ILE:HD12	1.58	0.84
1:B:99:VAL:HG13	1:B:119:ILE:HD11	1.59	0.84
2:Y:57:TYR:HD2	2:Y:58:SER:H	1.25	0.84
1:A:478:VAL:HA	1:A:530:VAL:CG1	2.08	0.84
1:A:1115:ASN:ND2	1:A:1117:SER:H	1.76	0.84
1:A:160:VAL:HG12	1:A:160:VAL:O	1.76	0.83
1:A:371:ILE:O	1:A:371:ILE:HG22	1.76	0.83
1:A:982:LEU:N	1:A:982:LEU:HD23	1.92	0.83
1:B:232:GLU:OE2	1:B:251:LYS:HE2	1.77	0.83
2:X:46:LEU:HD22	2:X:206:LYS:HE3	1.60	0.83
1:A:1624:ALA:HB1	1:A:1636:ILE:HA	1.60	0.83
1:A:1673:LEU:HB2	1:B:258:LYS:CG	2.09	0.83
1:B:493:ILE:HG23	1:B:494:ASP:H	1.42	0.83
1:B:618:LYS:CB	1:B:621:GLU:HB3	2.08	0.83
1:B:198:MET:HE2	1:B:198:MET:HA	1.59	0.83
1:A:1096:ASN:HD21	1:A:1099:SER:H	1.24	0.83
1:A:99:VAL:HG13	1:A:119:ILE:HD11	1.59	0.82
1:A:242:ASN:H	1:A:242:ASN:ND2	1.72	0.82
1:A:38:ASN:HD21	2:X:150:ILE:CG1	1.88	0.82
1:B:371:ILE:O	1:B:371:ILE:HG22	1.76	0.82
1:A:493:ILE:HG23	1:A:494:ASP:H	1.45	0.82
1:A:1578:LYS:HA	1:A:1599:THR:HA	1.61	0.82
1:B:1430:THR:O	1:B:1485:VAL:HG11	1.79	0.82
1:A:42:GLN:HG3	1:A:80:GLN:HE21	1.43	0.82
1:A:59:TYR:CB	1:A:60:PRO:HD3	2.10	0.82
1:B:1127:ILE:H	1:B:1127:ILE:HD12	1.43	0.82
1:A:618:LYS:CB	1:A:621:GLU:HB3	2.10	0.82
1:B:156:LYS:O	1:B:157:ARG:HG3	1.78	0.82
1:A:439:ALA:CB	1:A:442:LEU:HB2	2.10	0.82
1:A:478:VAL:HA	1:A:530:VAL:HG13	1.61	0.82
1:A:497:THR:HG23	1:A:498:HIS:H	1.42	0.82
1:A:778:HIS:CE1	1:A:786:LEU:HD13	2.15	0.82
1:B:120:THR:HG22	1:B:121:TYR:H	1.44	0.82
1:B:497:THR:HG23	1:B:498:HIS:H	1.42	0.82
1:A:1614:GLY:HA3	1:B:1519:VAL:HG21	1.62	0.82
1:B:478:VAL:HA	1:B:530:VAL:CG1	2.10	0.82
2:Y:113:ASN:HD21	2:Y:115:ARG:HG2	1.44	0.81
1:A:1423:VAL:CG2	1:A:1496:TYR:HE1	1.94	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1535:MET:HG2	1:A:1609:ALA:HA	1.61	0.81
1:B:1259:LEU:HD11	1:B:1300:TYR:HB2	1.63	0.81
1:B:1438:ASP:O	1:B:1441:ALA:HB3	1.81	0.81
1:A:702:GLY:HA2	1:A:728:PHE:CE1	2.15	0.81
1:A:710:THR:HG23	1:A:713:GLN:CD	2.04	0.81
2:X:113:ASN:HD21	2:X:115:ARG:HG2	1.44	0.81
1:B:66:TYR:CE1	1:B:90:LYS:HG3	2.15	0.81
1:A:1132:THR:HB	1:A:1134:PRO:HD2	1.63	0.81
1:B:1096:ASN:HD21	1:B:1099:SER:H	1.23	0.81
1:A:1259:LEU:HD11	1:A:1300:TYR:HB2	1.63	0.81
1:A:1652:THR:O	1:A:1653:THR:HB	1.80	0.81
1:B:478:VAL:HA	1:B:530:VAL:HG13	1.62	0.81
1:B:702:GLY:HA2	1:B:728:PHE:CE1	2.16	0.81
1:B:977:LEU:HD12	1:B:1361:VAL:CG2	2.09	0.81
1:A:263:ALA:HB3	1:A:292:LEU:HB3	1.62	0.81
1:B:59:TYR:CB	1:B:60:PRO:HD3	2.09	0.81
1:B:96:GLN:O	1:B:98:PRO:HD3	1.81	0.81
1:A:543:TYR:HB3	1:A:556:SER:HB3	1.63	0.81
1:A:968:VAL:HG12	1:A:1368:THR:HG22	1.63	0.81
1:B:253:ARG:HH21	1:B:257:ASN:HA	1.44	0.81
1:B:820:PHE:CE2	1:B:848:TYR:HD2	1.97	0.81
1:A:156:LYS:O	1:A:157:ARG:HG3	1.79	0.80
1:A:857:VAL:HG12	1:A:914:LEU:HB3	1.62	0.80
1:A:930:VAL:HG12	1:A:931:PRO:N	1.96	0.80
1:B:786:LEU:N	1:B:786:LEU:HD23	1.97	0.80
1:A:96:GLN:O	1:A:98:PRO:HD3	1.81	0.80
1:A:253:ARG:HH21	1:A:257:ASN:HA	1.44	0.80
1:A:307:VAL:HG11	1:A:313:TYR:HB2	1.63	0.80
1:B:778:HIS:CE1	1:B:786:LEU:HD13	2.15	0.80
1:B:1132:THR:HB	1:B:1134:PRO:HD2	1.63	0.80
1:A:120:THR:HG22	1:A:121:TYR:H	1.46	0.80
1:A:100:SER:O	1:A:101:TYR:HB2	1.80	0.80
1:B:1068:VAL:HG13	1:B:1069:TRP:N	1.96	0.80
1:B:1429:PRO:HG2	1:B:1511:THR:HB	1.62	0.80
1:A:59:TYR:CG	1:A:60:PRO:HD3	2.17	0.80
1:B:38:ASN:HD21	2:Y:150:ILE:CG1	1.90	0.80
1:B:100:SER:O	1:B:101:TYR:HB2	1.81	0.80
2:Y:46:LEU:HD22	2:Y:206:LYS:HE3	1.62	0.80
1:A:1127:ILE:H	1:A:1127:ILE:HD12	1.46	0.80
1:A:820:PHE:CE2	1:A:848:TYR:HD2	1.99	0.80
1:B:1423:VAL:CG2	1:B:1496:TYR:HE1	1.94	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1068:VAL:HG13	1:A:1069:TRP:N	1.94	0.80
1:B:263:ALA:HB3	1:B:292:LEU:HB3	1.62	0.80
1:B:1514:ILE:HG21	1:B:1516:ILE:HG12	1.64	0.80
1:A:542:VAL:O	1:A:556:SER:HB2	1.82	0.79
1:B:464:TYR:H	1:B:491:PRO:HD3	1.48	0.79
1:B:1378:TYR:CZ	1:B:1409:LYS:HE3	2.17	0.79
1:B:679:LEU:HD13	1:B:742:ILE:HG12	1.64	0.79
1:A:1671:ILE:HG23	1:A:1672:PHE:H	1.48	0.79
1:A:66:TYR:CE1	1:A:90:LYS:HG3	2.18	0.79
1:A:617:LYS:HE3	1:A:625:GLN:NE2	1.96	0.79
1:B:855:PHE:CZ	1:B:894:HIS:CD2	2.69	0.79
1:A:786:LEU:N	1:A:786:LEU:HD23	1.98	0.79
1:B:839:ILE:CG2	1:B:900:VAL:HG23	2.13	0.79
1:B:1431:GLY:HA3	1:B:1483:PHE:CE1	2.18	0.79
1:A:886:GLN:CG	1:A:894:HIS:CE1	2.64	0.79
1:A:1429:PRO:HG2	1:A:1511:THR:HB	1.63	0.79
1:B:59:TYR:CG	1:B:60:PRO:HD3	2.17	0.79
2:Y:128:LYS:HB2	2:Y:158:GLU:HB2	1.65	0.79
1:A:886:GLN:HE22	1:A:1623:GLU:HG2	1.46	0.79
1:B:1084:ARG:HD2	1:B:1154:LYS:HG3	1.65	0.78
1:A:545:ILE:HG23	1:A:554:LEU:HD23	1.65	0.78
1:B:617:LYS:HE3	1:B:625:GLN:NE2	1.96	0.78
1:A:443:PRO:HA	1:B:443:PRO:HA	1.65	0.78
1:A:464:TYR:H	1:A:491:PRO:HD3	1.47	0.78
2:Y:150:ILE:HD12	2:Y:151:ASP:N	1.98	0.78
1:A:1411:SER:O	1:A:1414:GLU:HB2	1.84	0.78
1:A:1438:ASP:O	1:A:1441:ALA:HB3	1.84	0.78
1:B:307:VAL:HG11	1:B:313:TYR:HB2	1.64	0.78
1:B:857:VAL:HG12	1:B:914:LEU:HB3	1.63	0.78
1:B:1334:LEU:HD22	1:B:1334:LEU:N	1.99	0.78
1:A:1216:ALA:HB2	1:A:1228:TRP:CE2	2.19	0.78
2:Y:102:ASN:HB2	2:Y:123:THR:HG23	1.66	0.78
1:A:1423:VAL:CG2	1:A:1496:TYR:CE1	2.67	0.78
1:B:859:MET:HB2	1:B:912:PHE:CE1	2.18	0.78
1:A:1517:GLN:O	1:A:1518:LYS:HG2	1.83	0.78
1:A:977:LEU:HD12	1:A:1361:VAL:HG21	1.65	0.77
1:B:66:TYR:HE1	1:B:90:LYS:HG3	1.47	0.77
1:A:1431:GLY:HA3	1:A:1483:PHE:CE1	2.19	0.77
2:X:150:ILE:HD12	2:X:151:ASP:N	1.99	0.77
1:B:1161:LEU:HB3	1:B:1164:ILE:HG23	1.66	0.77
1:A:679:LEU:HD13	1:A:742:ILE:HG12	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:839:ILE:CG2	1:A:900:VAL:HG23	2.14	0.77
1:B:543:TYR:HB3	1:B:556:SER:HB3	1.66	0.77
1:B:1427:SER:OG	1:B:1491:ALA:HB1	1.83	0.77
1:A:835:ARG:HH11	1:A:835:ARG:CG	1.96	0.77
1:B:440:PRO:HD2	1:B:441:ASP:OD2	1.83	0.77
1:B:930:VAL:HG12	1:B:931:PRO:N	1.99	0.77
1:B:961:TYR:OH	1:B:1343:ASN:CG	2.28	0.77
1:A:440:PRO:HD2	1:A:441:ASP:OD2	1.85	0.77
1:A:1673:LEU:CB	1:B:258:LYS:HG3	2.15	0.77
1:B:542:VAL:O	1:B:556:SER:HB2	1.85	0.77
1:B:835:ARG:HH11	1:B:835:ARG:CG	1.96	0.77
1:A:697:LYS:HE3	1:A:701:ASP:OD2	1.83	0.77
1:A:859:MET:HB2	1:A:912:PHE:CE1	2.19	0.77
2:X:102:ASN:HB2	2:X:123:THR:HG23	1.66	0.77
1:B:1244:THR:HG22	1:B:1247:MET:H	1.49	0.77
1:A:66:TYR:HE1	1:A:90:LYS:HG3	1.50	0.76
1:B:833:VAL:HG21	1:B:927:LEU:HD21	1.67	0.76
1:B:1025:LEU:HD13	1:B:1031:TRP:CZ3	2.20	0.76
1:B:1423:VAL:CG2	1:B:1496:TYR:CE1	2.67	0.76
1:A:639:GLY:H	1:A:645:VAL:HG22	1.50	0.76
1:B:492:TYR:OH	1:B:548:GLY:HA2	1.85	0.76
1:B:545:ILE:HG23	1:B:554:LEU:HD23	1.66	0.76
2:X:128:LYS:HB2	2:X:158:GLU:HB2	1.66	0.76
1:A:885:ARG:HG3	1:A:1626:GLN:HB2	1.67	0.76
1:A:1025:LEU:HD13	1:A:1031:TRP:CZ3	2.20	0.76
1:A:1361:VAL:O	1:A:1361:VAL:HG12	1.83	0.76
1:A:1563:VAL:HG12	1:A:1581:LEU:HG	1.67	0.76
1:A:1599:THR:O	1:A:1636:ILE:HG12	1.85	0.76
1:A:961:TYR:OH	1:A:1343:ASN:CG	2.28	0.76
1:B:59:TYR:HD1	1:B:103:TYR:CE1	2.03	0.76
1:B:384:GLY:HA2	1:B:411:THR:HG23	1.68	0.76
1:B:790:LEU:HD13	1:B:819:VAL:HG11	1.66	0.76
1:A:1084:ARG:HD2	1:A:1154:LYS:HG3	1.67	0.76
1:B:823:VAL:HG22	1:B:847:ASN:HA	1.68	0.76
1:A:489:LYS:O	1:A:491:PRO:HD2	1.86	0.76
1:B:318:LEU:O	1:B:319:ASN:HB2	1.84	0.76
1:A:1636:ILE:CG1	1:A:1637:TYR:H	1.99	0.76
2:X:107:GLN:CD	2:X:110:ILE:HD11	2.10	0.76
1:B:439:ALA:CB	1:B:442:LEU:HB2	2.16	0.75
1:A:1334:LEU:H	1:A:1334:LEU:CD2	1.99	0.75
2:Y:107:GLN:CD	2:Y:110:ILE:HD11	2.11	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:354:LEU:H	1:A:354:LEU:HD22	1.51	0.75
1:B:38:ASN:O	1:B:39:ILE:HD13	1.86	0.75
1:A:975:ARG:HB3	1:A:1363:THR:HB	1.69	0.75
1:B:1334:LEU:H	1:B:1334:LEU:CD2	1.99	0.75
1:B:1485:VAL:CG2	1:B:1488:LEU:HB3	2.16	0.75
1:A:1161:LEU:HB3	1:A:1164:ILE:HG23	1.69	0.75
1:A:1378:TYR:CZ	1:A:1409:LYS:HE3	2.21	0.75
1:B:354:LEU:HD22	1:B:354:LEU:H	1.51	0.75
1:B:1085:VAL:O	1:B:1089:VAL:HG23	1.86	0.75
1:A:833:VAL:HG21	1:A:927:LEU:HD21	1.68	0.75
1:A:1334:LEU:HD22	1:A:1334:LEU:N	2.00	0.75
1:A:1603:LYS:HG3	1:A:1604:VAL:H	1.49	0.75
2:X:42:ASP:O	2:X:46:LEU:HG	1.87	0.75
1:A:857:VAL:HG21	1:A:896:VAL:HG11	1.69	0.75
1:A:1673:LEU:HB2	1:B:258:LYS:CD	2.15	0.75
1:B:938:SER:OG	1:B:1279:ARG:NH1	2.20	0.75
1:B:968:VAL:HG12	1:B:1368:THR:HG22	1.69	0.75
1:A:855:PHE:CZ	1:A:894:HIS:ND1	2.55	0.75
1:B:492:TYR:CD2	1:B:493:ILE:N	2.55	0.75
1:A:823:VAL:HG22	1:A:847:ASN:HA	1.69	0.75
1:A:1318:LYS:HG2	1:A:1319:HIS:CE1	2.22	0.75
1:B:765:ILE:HG23	1:B:765:ILE:O	1.87	0.75
1:A:38:ASN:O	1:A:39:ILE:HD13	1.88	0.74
1:A:492:TYR:CD2	1:A:493:ILE:N	2.54	0.74
1:B:697:LYS:HE3	1:B:701:ASP:OD2	1.86	0.74
1:A:57:LYS:O	1:A:103:TYR:HB2	1.87	0.74
1:A:318:LEU:O	1:A:319:ASN:HB2	1.86	0.74
1:A:855:PHE:CE2	1:A:888:VAL:HG13	2.22	0.74
1:A:968:VAL:HG23	1:A:971:THR:HG21	1.68	0.74
1:A:1488:LEU:CD1	1:A:1488:LEU:C	2.60	0.74
1:B:1142:LEU:HD13	1:B:1187:THR:CG2	2.17	0.74
1:A:412:ARG:HD2	1:A:415:ASP:HB2	1.67	0.74
1:A:492:TYR:OH	1:A:548:GLY:HA2	1.87	0.74
1:A:1219:LYS:HB2	1:A:1225:TYR:HB2	1.69	0.74
1:A:1244:THR:HG22	1:A:1247:MET:H	1.52	0.74
1:B:66:TYR:HD1	1:B:90:LYS:HE3	1.53	0.74
1:B:975:ARG:HB3	1:B:1363:THR:HB	1.68	0.74
2:Y:42:ASP:O	2:Y:46:LEU:HG	1.87	0.74
2:Y:139:ASN:HB3	2:Y:146:LEU:HD21	1.68	0.74
1:B:231:ILE:HD12	1:B:327:VAL:HG23	1.69	0.74
1:B:1411:SER:O	1:B:1414:GLU:HB2	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:384:GLY:HA2	1:A:411:THR:HG23	1.69	0.74
1:A:707:ASN:HB3	1:A:739:ARG:HH22	1.52	0.74
1:B:268:THR:HA	1:B:286:ALA:HB1	1.69	0.74
1:B:968:VAL:HG23	1:B:971:THR:HG21	1.70	0.74
1:B:977:LEU:HD12	1:B:1361:VAL:HG21	1.68	0.74
2:Y:65:GLU:OE1	2:Y:65:GLU:N	2.20	0.74
1:B:639:GLY:H	1:B:645:VAL:HG22	1.50	0.74
1:A:492:TYR:HD2	1:A:493:ILE:H	1.34	0.74
1:A:351:PRO:HD2	1:A:442:LEU:HD11	1.69	0.74
2:Y:70:SER:HB3	2:Y:91:LYS:HE3	1.68	0.74
1:A:290:THR:O	1:A:290:THR:HG22	1.87	0.73
1:A:1229:LYS:HE3	1:A:1231:ASN:OD1	1.88	0.73
1:B:835:ARG:HG2	1:B:835:ARG:NH1	2.02	0.73
1:B:412:ARG:HD2	1:B:415:ASP:HB2	1.68	0.73
1:A:1515:LYS:O	1:A:1516:ILE:HG13	1.88	0.73
2:X:139:ASN:HB3	2:X:146:LEU:HD21	1.68	0.73
1:B:829:ILE:HG22	1:B:830:PRO:HD2	1.69	0.73
1:B:1146:ALA:HB1	1:B:1190:ILE:HG22	1.70	0.73
1:B:1318:LYS:HG2	1:B:1319:HIS:CE1	2.23	0.73
1:A:886:GLN:HG3	1:A:887:LYS:H	1.54	0.73
1:A:1023:HIS:CD2	1:A:1092:TYR:OH	2.40	0.73
1:B:351:PRO:HD2	1:B:442:LEU:HD11	1.69	0.73
1:B:493:ILE:HG23	1:B:494:ASP:N	2.04	0.73
1:B:907:LEU:HD12	1:B:908:HIS:H	1.54	0.73
1:B:707:ASN:HB3	1:B:739:ARG:HH22	1.53	0.73
1:B:1427:SER:HB3	1:B:1492:THR:H	1.54	0.73
1:A:790:LEU:HD13	1:A:819:VAL:HG11	1.69	0.73
1:A:1233:GLN:HA	1:A:1235:LYS:HZ3	1.54	0.73
1:B:149:ASN:O	1:B:151:ASP:N	2.21	0.73
1:B:1229:LYS:HE3	1:B:1231:ASN:OD1	1.88	0.73
1:A:59:TYR:HD1	1:A:103:TYR:CE1	2.04	0.73
1:A:92:LEU:N	1:A:93:PRO:HD3	2.04	0.73
1:A:307:VAL:HG12	1:A:313:TYR:HB2	1.70	0.73
1:A:829:ILE:HG22	1:A:830:PRO:HD2	1.70	0.73
1:B:1228:TRP:N	1:B:1228:TRP:CE3	2.56	0.73
1:A:59:TYR:HB3	1:A:60:PRO:CD	2.19	0.73
1:A:592:MET:HE1	1:A:786:LEU:CD2	2.18	0.73
2:X:190:ILE:O	2:X:190:ILE:HG12	1.89	0.73
1:B:92:LEU:N	1:B:93:PRO:HD3	2.04	0.73
1:B:1061:ASN:HB2	1:B:1065:SER:O	1.89	0.73
1:B:290:THR:O	1:B:290:THR:HG22	1.87	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:307:VAL:HG12	1:B:313:TYR:HB2	1.70	0.73
1:B:171:VAL:HG13	1:B:1057:MET:CE	2.19	0.72
1:B:1361:VAL:O	1:B:1361:VAL:HG12	1.87	0.72
1:B:242:ASN:HD22	1:B:242:ASN:N	1.86	0.72
1:B:1076:THR:HG21	1:B:1144:LEU:HD21	1.71	0.72
1:A:1430:THR:O	1:A:1485:VAL:HG11	1.89	0.72
1:B:886:GLN:HG3	1:B:887:LYS:H	1.54	0.72
1:A:242:ASN:HD22	1:A:242:ASN:N	1.85	0.72
1:A:623:VAL:HG11	1:A:809:ILE:HD13	1.70	0.72
1:A:1142:LEU:HD13	1:A:1187:THR:CG2	2.19	0.72
1:B:489:LYS:O	1:B:491:PRO:HD2	1.89	0.72
1:B:492:TYR:HD2	1:B:493:ILE:H	1.36	0.72
1:B:857:VAL:HG21	1:B:896:VAL:HG11	1.71	0.72
1:B:1233:GLN:HA	1:B:1235:LYS:HZ2	1.52	0.72
1:A:494:ASP:C	1:A:496:ILE:HD12	2.15	0.72
1:A:470:THR:HG22	1:A:471:ASP:N	2.04	0.72
1:A:765:ILE:HG23	1:A:765:ILE:O	1.89	0.72
1:B:592:MET:HE1	1:B:786:LEU:CD2	2.19	0.72
2:Y:169:ILE:HG21	2:Y:189:ILE:HD13	1.70	0.72
1:A:253:ARG:NH2	1:A:257:ASN:HA	2.05	0.72
1:A:268:THR:HA	1:A:286:ALA:HB1	1.70	0.72
1:A:1620:MET:O	1:A:1643:THR:HA	1.88	0.72
1:B:1228:TRP:N	1:B:1228:TRP:HE3	1.86	0.72
1:A:160:VAL:CG2	1:A:175:GLU:HB3	2.20	0.72
1:A:1649:PRO:C	1:A:1651:ASP:H	1.98	0.72
2:Y:190:ILE:O	2:Y:190:ILE:HG12	1.89	0.72
1:A:1535:MET:HB3	1:A:1645:ILE:HD11	1.72	0.72
1:B:253:ARG:NH2	1:B:257:ASN:HA	2.05	0.72
1:A:231:ILE:HD12	1:A:327:VAL:HG23	1.71	0.71
1:A:365:PRO:HD2	1:A:464:TYR:CD2	2.25	0.71
1:A:592:MET:HE1	1:A:786:LEU:HD21	1.71	0.71
1:B:855:PHE:CE2	1:B:888:VAL:HG13	2.24	0.71
1:B:1283:GLY:HA3	1:B:1290:THR:HG23	1.72	0.71
1:A:833:VAL:CG2	1:A:927:LEU:HD21	2.20	0.71
1:A:1286:SER:OG	1:A:1287:THR:N	2.21	0.71
1:B:73:LEU:HB2	1:B:79:PHE:HA	1.72	0.71
1:B:494:ASP:C	1:B:496:ILE:HD12	2.15	0.71
1:B:592:MET:HE1	1:B:786:LEU:HD21	1.72	0.71
2:X:169:ILE:HG21	2:X:189:ILE:HD13	1.70	0.71
1:B:1111:TYR:CE1	1:B:1121:ASN:HB2	2.25	0.71
1:B:1450:PHE:CZ	1:B:1475:VAL:HB	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:82:HIS:HA	2:Y:115:ARG:HB2	1.72	0.71
1:A:270:GLY:CA	1:A:283:MET:HE2	2.21	0.71
1:A:907:LEU:HD12	1:A:908:HIS:H	1.55	0.71
1:A:1076:THR:HG21	1:A:1144:LEU:HD21	1.71	0.71
1:B:1030:HIS:CE1	1:B:1306:GLN:NE2	2.58	0.71
1:B:1207:SER:O	1:B:1210:SER:HB3	1.91	0.71
2:X:125:LYS:HA	2:X:127:ASN:N	2.06	0.71
1:B:57:LYS:O	1:B:103:TYR:HB2	1.88	0.71
1:B:365:PRO:HD2	1:B:464:TYR:CD2	2.26	0.71
1:B:1233:GLN:HA	1:B:1235:LYS:HZ3	1.55	0.71
1:A:243:PHE:CE1	1:A:316:GLU:HG3	2.25	0.71
1:A:386:VAL:HG23	1:A:411:THR:HG21	1.73	0.71
1:A:598:SER:HA	1:A:805:SER:OG	1.90	0.71
1:A:1279:ARG:HG3	1:A:1284:PHE:CG	2.26	0.71
1:B:59:TYR:HB3	1:B:60:PRO:CD	2.19	0.71
1:A:968:VAL:O	1:A:971:THR:HG23	1.90	0.71
1:A:1233:GLN:HA	1:A:1235:LYS:HZ2	1.52	0.71
1:A:1283:GLY:HA3	1:A:1290:THR:HG23	1.73	0.71
1:A:1438:ASP:OD2	1:A:1478:ARG:HG3	1.90	0.71
1:A:1488:LEU:O	1:A:1488:LEU:CD1	2.36	0.71
1:A:1311:MET:HG2	1:A:1350:THR:OG1	1.91	0.71
2:X:65:GLU:OE1	2:X:65:GLU:N	2.23	0.71
1:B:412:ARG:HD3	1:B:414:ASP:OD1	1.91	0.71
1:A:73:LEU:HB2	1:A:79:PHE:HA	1.73	0.71
1:A:85:LEU:H	1:A:85:LEU:HD22	1.56	0.71
1:A:1633:PHE:CD1	1:A:1634:ARG:HG2	2.21	0.71
1:B:1279:ARG:HG3	1:B:1284:PHE:CG	2.25	0.71
1:B:582:TYR:HB2	1:B:819:VAL:HG12	1.71	0.71
1:B:1216:ALA:HB2	1:B:1228:TRP:CE2	2.26	0.71
1:A:829:ILE:HG13	1:A:925:LYS:HG3	1.73	0.70
1:A:1228:TRP:H	1:A:1251:THR:HG22	1.55	0.70
1:B:833:VAL:CG2	1:B:927:LEU:HD21	2.21	0.70
1:B:932:GLU:N	1:B:932:GLU:OE1	2.24	0.70
1:B:470:THR:HG22	1:B:471:ASP:N	2.05	0.70
1:A:1207:SER:O	1:A:1210:SER:HB3	1.90	0.70
2:X:77:PRO:HG3	2:X:82:HIS:CD2	2.26	0.70
1:B:598:SER:HA	1:B:805:SER:OG	1.90	0.70
1:A:1577:TYR:C	1:A:1578:LYS:HG2	2.14	0.70
1:B:1219:LYS:HB2	1:B:1225:TYR:HB2	1.72	0.70
1:B:1485:VAL:HG23	1:B:1488:LEU:HB3	1.71	0.70
1:A:1085:VAL:O	1:A:1089:VAL:HG23	1.89	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1320:LYS:HG2	1:A:1342:LEU:HD12	1.73	0.70
2:X:73:VAL:HG23	2:X:74:ARG:N	2.05	0.70
2:X:82:HIS:HA	2:X:115:ARG:HB2	1.71	0.70
1:B:242:ASN:ND2	1:B:242:ASN:N	2.38	0.70
1:A:1576:LYS:HG2	1:A:1602:LYS:H	1.56	0.70
2:X:77:PRO:O	2:X:78:LYS:HG3	1.91	0.70
2:Y:125:LYS:HA	2:Y:127:ASN:N	2.06	0.70
1:A:1111:TYR:CE1	1:A:1121:ASN:HB2	2.26	0.70
1:A:1651:ASP:HB3	1:A:1654:CYS:HB3	1.73	0.70
1:B:623:VAL:HG11	1:B:809:ILE:HD13	1.73	0.70
1:B:987:ILE:HD13	1:B:1294:ILE:CD1	2.16	0.70
2:Y:77:PRO:HG3	2:Y:82:HIS:CD2	2.25	0.70
1:A:73:LEU:HD23	1:A:73:LEU:H	1.57	0.70
1:A:1030:HIS:CE1	1:A:1306:GLN:NE2	2.60	0.70
1:A:1228:TRP:CE3	1:A:1228:TRP:N	2.60	0.70
2:X:70:SER:HB3	2:X:91:LYS:HE3	1.72	0.70
2:Y:77:PRO:O	2:Y:78:LYS:HG3	1.91	0.70
1:A:493:ILE:HG23	1:A:494:ASP:N	2.04	0.70
1:B:85:LEU:H	1:B:85:LEU:HD22	1.57	0.70
1:A:66:TYR:HD1	1:A:90:LYS:HE3	1.57	0.70
1:A:1652:THR:HB	1:B:868:SER:HB3	1.73	0.70
1:B:218:GLU:OE1	1:B:220:LYS:HE2	1.91	0.70
1:B:829:ILE:HG13	1:B:925:LYS:HG3	1.74	0.70
1:B:1228:TRP:H	1:B:1251:THR:HG22	1.56	0.70
1:A:987:ILE:HD13	1:A:1294:ILE:CD1	2.14	0.69
1:A:1557:ILE:HG22	1:A:1557:ILE:O	1.92	0.69
1:B:160:VAL:CG2	1:B:175:GLU:HB3	2.22	0.69
1:B:679:LEU:HB3	1:B:738:LEU:HD21	1.74	0.69
1:A:218:GLU:OE1	1:A:220:LYS:HE2	1.91	0.69
1:A:412:ARG:HD3	1:A:414:ASP:OD1	1.91	0.69
1:B:73:LEU:H	1:B:73:LEU:HD23	1.58	0.69
1:B:1378:TYR:CE1	1:B:1409:LYS:HE3	2.27	0.69
1:A:1063:ASP:O	1:A:1064:TYR:HB2	1.91	0.69
1:A:1577:TYR:CD2	1:A:1611:LEU:HD11	2.27	0.69
1:A:1649:PRO:O	1:A:1661:LEU:HD11	1.91	0.69
1:B:506:LYS:HZ2	1:B:536:PRO:HD2	1.56	0.69
1:B:123:ASN:HD22	1:B:124:GLY:N	1.89	0.69
1:B:248:ILE:HD13	1:B:325:ILE:HD13	1.75	0.69
1:A:123:ASN:HD22	1:A:124:GLY:N	1.89	0.69
1:A:157:ARG:O	1:A:178:ASP:HB2	1.92	0.69
1:A:635:GLY:HA2	1:A:672:ILE:HG23	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:829:ILE:HG13	1:A:925:LYS:CG	2.23	0.69
1:B:1023:HIS:CD2	1:B:1092:TYR:OH	2.40	0.69
1:A:717:ARG:NH1	1:A:1447:ASP:O	2.25	0.69
1:A:1637:TYR:CD2	1:A:1638:PRO:HD2	2.27	0.69
1:A:932:GLU:OE1	1:A:932:GLU:N	2.26	0.69
1:A:1061:ASN:HB2	1:A:1065:SER:O	1.93	0.69
2:X:134:THR:HG22	2:X:153:PHE:O	1.92	0.69
1:B:1110:ASN:HB2	1:B:1111:TYR:CD2	2.27	0.69
1:A:242:ASN:ND2	1:A:242:ASN:N	2.38	0.69
1:A:827:MET:HG3	1:A:912:PHE:CD2	2.28	0.69
1:B:367:ILE:HD13	1:B:466:TYR:CB	2.23	0.69
1:B:702:GLY:HA2	1:B:728:PHE:CD1	2.28	0.69
1:A:99:VAL:CG1	1:A:119:ILE:HD11	2.22	0.69
1:A:142:LYS:HD3	1:A:775:TRP:CG	2.28	0.69
1:A:582:TYR:HB2	1:A:819:VAL:HG12	1.75	0.69
1:A:679:LEU:HB3	1:A:738:LEU:HD21	1.73	0.69
1:A:1496:TYR:HB3	1:A:1504:GLN:HG3	1.75	0.69
1:B:99:VAL:CG1	1:B:119:ILE:HD11	2.23	0.69
1:B:123:ASN:C	1:B:123:ASN:ND2	2.51	0.69
1:B:242:ASN:HB2	1:B:245:ASN:O	1.93	0.69
1:B:635:GLY:HA2	1:B:672:ILE:HG23	1.75	0.69
1:A:532:GLN:O	1:A:535:VAL:HG22	1.93	0.68
1:A:1622:LYS:O	1:A:1637:TYR:CE2	2.46	0.68
1:B:270:GLY:CA	1:B:283:MET:HE2	2.23	0.68
1:B:1280:TYR:CD2	1:B:1280:TYR:C	2.70	0.68
1:B:1311:MET:HG2	1:B:1350:THR:OG1	1.93	0.68
1:A:702:GLY:HA2	1:A:728:PHE:CD1	2.27	0.68
1:B:377:ASP:C	1:B:379:LEU:H	2.02	0.68
1:B:466:TYR:CD1	1:B:466:TYR:C	2.70	0.68
1:B:1068:VAL:HA	1:B:1078:LEU:HD13	1.76	0.68
1:B:1525:CYS:SG	1:B:1526:LYS:N	2.66	0.68
1:A:56:ILE:HG13	1:A:66:TYR:HD2	1.59	0.68
1:A:367:ILE:HD13	1:A:466:TYR:CB	2.23	0.68
1:A:1488:LEU:HD12	1:A:1488:LEU:C	2.17	0.68
1:B:1496:TYR:HB3	1:B:1504:GLN:HG3	1.75	0.68
1:A:855:PHE:HE2	1:A:888:VAL:HG13	1.58	0.68
1:A:1450:PHE:CZ	1:A:1475:VAL:HB	2.28	0.68
1:A:185:PHE:HB3	1:A:186:PRO:CD	2.23	0.68
1:A:1348:VAL:HG11	1:A:1359:VAL:HG21	1.75	0.68
1:B:968:VAL:O	1:B:971:THR:HG23	1.94	0.68
1:A:248:ILE:HD13	1:A:325:ILE:HD13	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:489:LYS:C	1:A:491:PRO:HD2	2.19	0.68
1:B:243:PHE:CE1	1:B:316:GLU:HG3	2.28	0.68
1:B:599:TRP:CZ3	1:B:779:LEU:HB2	2.29	0.68
2:Y:134:THR:HG22	2:Y:153:PHE:O	1.93	0.68
1:A:1146:ALA:HB1	1:A:1190:ILE:HG22	1.74	0.68
1:A:1548:ARG:NH1	1:A:1646:GLU:OE1	2.27	0.68
1:B:157:ARG:O	1:B:178:ASP:HB2	1.93	0.68
1:A:243:PHE:CZ	1:A:316:GLU:HB2	2.28	0.68
1:A:1340:VAL:HG21	1:A:1346:LEU:HD22	1.76	0.68
1:B:56:ILE:HG13	1:B:66:TYR:HD2	1.59	0.68
1:B:98:PRO:HB2	1:B:99:VAL:HG23	1.76	0.68
1:B:1063:ASP:O	1:B:1064:TYR:HB2	1.91	0.68
1:A:98:PRO:HB2	1:A:99:VAL:HG23	1.76	0.68
1:B:101:TYR:HE1	1:B:116:ARG:CZ	2.07	0.68
1:B:1011:GLU:HG3	1:B:1055:SER:OG	1.94	0.68
1:A:242:ASN:HB2	1:A:245:ASN:O	1.94	0.67
1:A:356:LEU:HG	1:A:452:TYR:CZ	2.29	0.67
1:A:571:LEU:HA	1:A:593:ALA:O	1.94	0.67
1:A:1110:ASN:HB2	1:A:1111:TYR:CD2	2.28	0.67
1:B:356:LEU:HG	1:B:452:TYR:CZ	2.29	0.67
1:B:539:ARG:NH1	1:B:631:ASP:OD1	2.27	0.67
1:A:328:THR:HG23	1:A:339:GLU:HG3	1.76	0.67
1:A:1228:TRP:N	1:A:1228:TRP:HE3	1.92	0.67
1:B:473:HIS:CD2	1:B:473:HIS:N	2.62	0.67
1:A:377:ASP:O	1:A:379:LEU:N	2.27	0.67
1:A:1238:SER:C	1:A:1240:PRO:HD3	2.20	0.67
1:A:1612:VAL:CB	1:A:1615:ARG:HD2	2.19	0.67
1:B:1320:LYS:HG2	1:B:1342:LEU:HD12	1.74	0.67
1:A:54:ILE:HG23	1:A:105:GLU:O	1.94	0.67
1:A:377:ASP:C	1:A:379:LEU:H	2.01	0.67
1:A:1011:GLU:HG3	1:A:1055:SER:OG	1.94	0.67
1:A:1559:TYR:CE1	1:A:1622:LYS:O	2.47	0.67
1:B:855:PHE:CZ	1:B:894:HIS:HD2	2.09	0.67
1:B:1332:ASN:O	1:B:1332:ASN:CG	2.37	0.67
1:B:1461:ILE:HG22	1:B:1461:ILE:O	1.95	0.67
1:A:1621:GLY:HA3	1:A:1637:TYR:OH	1.94	0.67
1:B:779:LEU:O	1:B:781:PRO:HD3	1.95	0.67
1:A:589:SER:HA	1:A:787:GLN:HA	1.77	0.67
1:B:123:ASN:ND2	1:B:150:ASP:H	1.92	0.67
1:B:185:PHE:HB3	1:B:186:PRO:CD	2.25	0.67
1:B:377:ASP:O	1:B:379:LEU:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1332:ASN:CG	1:A:1332:ASN:O	2.37	0.67
1:B:829:ILE:HG13	1:B:925:LYS:CG	2.24	0.67
2:X:47:HIS:HD2	2:X:47:HIS:O	1.77	0.67
2:X:137:PHE:N	2:X:137:PHE:CD1	2.61	0.67
1:B:42:GLN:HG3	1:B:80:GLN:NE2	2.09	0.67
1:B:44:TYR:CE1	1:B:497:THR:HG21	2.30	0.67
1:B:271:ILE:HG22	1:B:272:ARG:N	2.10	0.67
1:B:1027:THR:O	1:B:1027:THR:CG2	2.43	0.67
1:B:1238:SER:C	1:B:1240:PRO:HD3	2.20	0.67
1:A:381:GLN:HE21	1:A:381:GLN:H	1.42	0.67
1:B:54:ILE:HG23	1:B:105:GLU:O	1.95	0.67
1:B:541:LEU:HD12	1:B:645:VAL:HG12	1.77	0.67
1:B:571:LEU:HA	1:B:593:ALA:O	1.94	0.67
1:A:42:GLN:HG3	1:A:80:GLN:NE2	2.10	0.67
1:A:71:VAL:O	1:A:71:VAL:HG23	1.94	0.67
1:A:488:PRO:O	1:A:491:PRO:HD2	1.94	0.67
1:A:1084:ARG:NE	1:A:1088:GLN:OE1	2.27	0.67
2:X:78:LYS:HD2	2:X:78:LYS:C	2.20	0.67
1:B:589:SER:HA	1:B:787:GLN:HA	1.77	0.67
2:Y:106:VAL:HG22	2:Y:163:LYS:HE3	1.77	0.67
1:A:101:TYR:HE1	1:A:116:ARG:CZ	2.09	0.66
1:A:163:PHE:HD1	1:A:163:PHE:H	1.41	0.66
1:A:1232:LEU:HG	1:A:1233:GLN:HG2	1.76	0.66
1:A:1490:PRO:HB3	1:A:1509:TYR:O	1.95	0.66
1:B:24:VAL:HA	1:B:655:THR:OG1	1.95	0.66
1:B:938:SER:O	1:B:940:SER:N	2.28	0.66
1:A:222:TYR:C	1:A:222:TYR:CD2	2.73	0.66
1:A:485:ILE:HD13	1:A:485:ILE:N	2.09	0.66
1:A:779:LEU:O	1:A:781:PRO:HD3	1.95	0.66
1:A:1620:MET:O	1:A:1643:THR:HG23	1.96	0.66
1:A:599:TRP:CZ3	1:A:779:LEU:HB2	2.30	0.66
1:A:934:VAL:HG22	1:A:1366:HIS:CD2	2.31	0.66
1:A:1427:SER:HB3	1:A:1492:THR:H	1.58	0.66
1:A:1520:CYS:SG	1:A:1526:LYS:HG3	2.35	0.66
1:A:1538:GLU:HG3	1:A:1539:LEU:N	2.11	0.66
1:B:142:LYS:HD3	1:B:775:TRP:CG	2.30	0.66
1:A:284:GLN:NE2	1:A:310:LEU:HD22	2.10	0.66
1:A:976:ILE:HD12	1:A:1362:THR:HG23	1.77	0.66
1:B:243:PHE:CZ	1:B:316:GLU:HB2	2.31	0.66
2:Y:47:HIS:O	2:Y:47:HIS:HD2	1.79	0.66
1:A:356:LEU:HD12	1:A:452:TYR:CD1	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1599:THR:HG22	1:A:1600:PHE:N	2.11	0.66
1:B:284:GLN:OE1	1:B:310:LEU:HB3	1.96	0.66
1:B:488:PRO:O	1:B:491:PRO:HD2	1.96	0.66
1:A:1303:LEU:C	1:A:1303:LEU:HD13	2.21	0.66
1:B:959:PHE:N	1:B:959:PHE:CD2	2.64	0.66
1:B:1232:LEU:HG	1:B:1233:GLN:HG2	1.78	0.66
1:A:24:VAL:HA	1:A:655:THR:OG1	1.95	0.66
1:A:234:GLU:HG2	1:A:235:TYR:CE2	2.30	0.66
1:B:328:THR:HG23	1:B:339:GLU:HG3	1.77	0.66
1:B:584:PRO:HG2	1:B:821:LYS:HB2	1.77	0.66
1:A:490:SER:O	1:A:491:PRO:C	2.39	0.66
1:B:532:GLN:O	1:B:535:VAL:HG22	1.96	0.66
1:A:571:LEU:HD12	1:A:571:LEU:C	2.21	0.66
1:A:1361:VAL:O	1:A:1361:VAL:CG1	2.43	0.66
1:A:1577:TYR:O	1:A:1578:LYS:HG2	1.95	0.66
1:B:163:PHE:HD1	1:B:163:PHE:H	1.43	0.66
1:B:536:PRO:HG3	1:B:624:PHE:HE2	1.60	0.66
1:B:1361:VAL:O	1:B:1361:VAL:CG1	2.44	0.66
2:X:106:VAL:HG22	2:X:163:LYS:HE3	1.76	0.66
1:B:71:VAL:HG23	1:B:71:VAL:O	1.95	0.66
1:B:560:TRP:CZ3	1:B:562:ASN:HB2	2.31	0.66
1:B:1024:TYR:CD2	1:B:1024:TYR:C	2.74	0.66
1:A:707:ASN:HB3	1:A:739:ARG:NH2	2.11	0.65
1:A:1244:THR:HG22	1:A:1246:ARG:N	2.11	0.65
1:B:367:ILE:HG21	1:B:466:TYR:HD2	1.56	0.65
1:B:485:ILE:HD13	1:B:485:ILE:N	2.10	0.65
1:B:618:LYS:HG3	1:B:621:GLU:OE1	1.96	0.65
1:B:855:PHE:HE2	1:B:888:VAL:HG13	1.61	0.65
1:B:1144:LEU:O	1:B:1148:THR:HG22	1.96	0.65
1:B:1340:VAL:HG21	1:B:1346:LEU:HD22	1.78	0.65
1:B:1514:ILE:CG2	1:B:1516:ILE:HG12	2.26	0.65
1:A:1630:ASN:O	1:A:1631:PHE:HB2	1.96	0.65
1:B:492:TYR:HD2	1:B:493:ILE:N	1.92	0.65
1:B:531:THR:HG22	1:B:534:MET:HG3	1.79	0.65
1:B:1274:LEU:C	1:B:1276:GLU:H	2.04	0.65
1:B:1303:LEU:HD13	1:B:1303:LEU:C	2.20	0.65
1:B:1348:VAL:HG11	1:B:1359:VAL:HG21	1.79	0.65
1:B:1438:ASP:OD2	1:B:1478:ARG:HG3	1.97	0.65
1:A:583:SER:OG	1:A:586:GLN:HB2	1.96	0.65
1:A:1068:VAL:HA	1:A:1078:LEU:HD13	1.78	0.65
2:X:73:VAL:HG23	2:X:74:ARG:H	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:123:ASN:N	1:B:211:THR:HG23	2.11	0.65
1:B:489:LYS:C	1:B:491:PRO:HD2	2.20	0.65
1:B:1274:LEU:O	1:B:1276:GLU:N	2.29	0.65
2:Y:190:ILE:HG23	2:Y:225:SER:O	1.97	0.65
1:A:120:THR:HG22	1:A:121:TYR:N	2.12	0.65
1:A:439:ALA:HB3	1:A:447:GLN:NE2	2.05	0.65
1:A:894:HIS:CD2	1:A:895:LEU:O	2.48	0.65
1:A:1027:THR:CG2	1:A:1027:THR:O	2.44	0.65
1:A:1427:SER:CB	1:A:1491:ALA:HB1	2.26	0.65
1:B:284:GLN:NE2	1:B:310:LEU:HD22	2.11	0.65
1:A:1274:LEU:O	1:A:1276:GLU:N	2.29	0.65
2:X:87:LEU:HA	2:X:91:LYS:HD3	1.78	0.65
2:X:140:LYS:O	2:X:146:LEU:HA	1.97	0.65
1:B:827:MET:HG3	1:B:912:PHE:CD2	2.31	0.65
1:B:934:VAL:HG22	1:B:1366:HIS:CD2	2.31	0.65
2:Y:78:LYS:HD2	2:Y:78:LYS:C	2.21	0.65
1:A:541:LEU:HD12	1:A:645:VAL:HG12	1.78	0.65
1:A:1624:ALA:CB	1:A:1636:ILE:HA	2.26	0.65
2:Y:87:LEU:HA	2:Y:91:LYS:HD3	1.78	0.65
1:A:157:ARG:H	1:A:178:ASP:HB3	1.61	0.65
1:A:1019:PHE:HE2	1:A:1088:GLN:HE21	1.44	0.65
1:A:1024:TYR:HB2	1:A:1298:THR:CG2	2.26	0.65
1:A:1056:ILE:HD11	1:A:1066:TYR:HE2	1.62	0.65
1:B:493:ILE:CG2	1:B:494:ASP:N	2.59	0.65
1:B:505:SER:HB3	1:B:510:ILE:HD11	1.79	0.65
1:B:1024:TYR:HB2	1:B:1298:THR:CG2	2.27	0.65
1:B:1236:ASP:HB2	1:B:1412:ARG:HH22	1.61	0.65
2:Y:140:LYS:O	2:Y:146:LEU:HA	1.96	0.65
1:A:253:ARG:HB2	1:A:253:ARG:CZ	2.27	0.65
1:A:1056:ILE:HD11	1:A:1066:TYR:CE2	2.31	0.65
1:A:1378:TYR:CE1	1:A:1409:LYS:HE3	2.31	0.65
1:A:1548:ARG:HA	1:A:1548:ARG:HE	1.61	0.65
1:A:1673:LEU:CD1	1:B:258:LYS:HE3	2.27	0.65
1:B:237:PHE:N	1:B:237:PHE:CD2	2.65	0.65
1:B:323:LEU:HD13	1:B:323:LEU:C	2.22	0.65
2:X:86:LEU:HG	2:X:91:LYS:HG3	1.79	0.65
1:B:23:TYR:O	1:B:655:THR:HG23	1.97	0.65
1:B:208:ASP:O	1:B:209:PHE:HB2	1.96	0.65
1:B:976:ILE:HD12	1:B:1362:THR:HG23	1.78	0.65
2:Y:165:LEU:O	2:Y:169:ILE:HG12	1.96	0.65
1:A:123:ASN:N	1:A:211:THR:HG23	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:385:GLY:N	1:A:411:THR:HG23	2.12	0.65
1:B:490:SER:O	1:B:491:PRO:C	2.39	0.65
1:B:1490:PRO:HB3	1:B:1509:TYR:O	1.97	0.65
1:A:44:TYR:CE1	1:A:497:THR:HG21	2.32	0.64
1:A:885:ARG:NH1	1:A:1628:LYS:HD3	2.11	0.64
1:A:886:GLN:HG2	1:A:894:HIS:HD1	1.56	0.64
1:A:938:SER:O	1:A:940:SER:N	2.30	0.64
1:A:1647:TYR:O	1:A:1649:PRO:HD3	1.98	0.64
2:X:190:ILE:HG23	2:X:225:SER:O	1.97	0.64
1:B:717:ARG:NH1	1:B:1447:ASP:O	2.27	0.64
1:A:356:LEU:CD1	1:A:452:TYR:CD1	2.80	0.64
1:A:584:PRO:HG2	1:A:821:LYS:HB2	1.79	0.64
1:B:120:THR:HG22	1:B:121:TYR:N	2.12	0.64
1:B:153:LYS:HB3	1:B:154:PRO:HD2	1.78	0.64
1:B:1180:LEU:HD21	1:B:1208:ILE:HA	1.79	0.64
2:Y:150:ILE:HD12	2:Y:150:ILE:C	2.23	0.64
1:A:493:ILE:CG2	1:A:494:ASP:N	2.59	0.64
1:A:560:TRP:CZ3	1:A:562:ASN:HB2	2.31	0.64
1:A:835:ARG:HG2	1:A:835:ARG:NH1	2.02	0.64
1:A:1144:LEU:O	1:A:1148:THR:HG22	1.97	0.64
1:B:386:VAL:HG23	1:B:411:THR:HG21	1.79	0.64
1:B:390:LEU:HG	1:B:390:LEU:O	1.97	0.64
1:B:571:LEU:HD12	1:B:571:LEU:C	2.21	0.64
1:B:707:ASN:HB3	1:B:739:ARG:NH2	2.12	0.64
1:B:1180:LEU:HD11	1:B:1208:ILE:N	2.13	0.64
1:A:171:VAL:HG13	1:A:1057:MET:CE	2.23	0.64
1:A:1536:GLN:CD	1:A:1644:TRP:CH2	2.76	0.64
2:X:165:LEU:O	2:X:169:ILE:HG12	1.97	0.64
1:A:653:PHE:CZ	1:A:660:ASP:HA	2.33	0.64
1:A:1053:MET:CE	1:A:1086:LEU:HD22	2.27	0.64
1:A:1563:VAL:HG22	1:A:1619:ILE:HD13	1.79	0.64
1:B:236:ASN:C	1:B:237:PHE:CD2	2.75	0.64
1:B:356:LEU:HD12	1:B:452:TYR:CD1	2.32	0.64
1:B:618:LYS:HB3	1:B:621:GLU:HB3	1.79	0.64
1:B:1053:MET:CE	1:B:1086:LEU:HD22	2.28	0.64
1:B:1084:ARG:NE	1:B:1088:GLN:OE1	2.29	0.64
1:B:1156:PHE:CZ	1:B:1160:PRO:HA	2.32	0.64
2:Y:138:VAL:HG11	2:Y:177:TYR:CD2	2.32	0.64
1:A:539:ARG:NH1	1:A:631:ASP:OD1	2.31	0.64
1:A:1274:LEU:C	1:A:1276:GLU:H	2.05	0.64
1:B:1056:ILE:HD11	1:B:1066:TYR:HE2	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1280:TYR:HD2	1:B:1281:GLY:N	1.96	0.64
1:A:618:LYS:HB2	1:A:621:GLU:HB3	1.79	0.64
1:B:231:ILE:HD12	1:B:327:VAL:CG2	2.28	0.64
1:B:253:ARG:CZ	1:B:253:ARG:HB2	2.26	0.64
1:B:782:ARG:O	1:B:783:ARG:HG3	1.98	0.64
1:B:1016:VAL:HB	1:B:1017:PRO:HD3	1.79	0.64
1:B:1142:LEU:HD13	1:B:1187:THR:HG22	1.79	0.64
2:Y:78:LYS:NZ	2:Y:79:ASP:HB2	2.13	0.64
2:Y:86:LEU:HG	2:Y:91:LYS:HG3	1.80	0.64
1:A:361:LEU:O	1:A:454:ALA:HA	1.98	0.64
1:A:505:SER:HB3	1:A:510:ILE:HD11	1.79	0.64
1:A:1629:TYR:CE1	1:A:1632:SER:HA	2.33	0.64
1:A:1639:LEU:HD11	1:A:1645:ILE:HG21	1.78	0.64
1:B:215:ALA:C	1:B:216:TYR:CD2	2.76	0.64
1:B:234:GLU:HG2	1:B:235:TYR:CE2	2.32	0.64
1:B:610:TYR:HB2	1:B:614:ARG:HD2	1.79	0.64
1:B:1056:ILE:HD11	1:B:1066:TYR:CE2	2.33	0.64
2:Y:58:SER:HB3	2:Y:102:ASN:ND2	2.13	0.64
1:A:531:THR:HG22	1:A:534:MET:HG3	1.80	0.64
1:A:952:THR:OG1	1:A:953:ILE:N	2.29	0.64
1:A:392:ALA:HB1	1:A:431:LEU:HD21	1.79	0.64
1:A:885:ARG:CG	1:A:1626:GLN:HB2	2.27	0.64
1:A:968:VAL:HG23	1:A:971:THR:CG2	2.28	0.64
1:A:1024:TYR:C	1:A:1024:TYR:CD2	2.75	0.64
1:A:1115:ASN:HD22	1:A:1116:GLY:N	1.96	0.64
2:X:73:VAL:HG22	2:X:84:LEU:HB3	1.80	0.64
2:X:103:VAL:HG22	2:X:122:VAL:HG22	1.79	0.64
1:B:222:TYR:C	1:B:222:TYR:CD2	2.76	0.64
1:B:577:PRO:HD2	1:B:588:VAL:HG23	1.80	0.64
1:B:857:VAL:HG21	1:B:896:VAL:CG1	2.27	0.64
1:B:1244:THR:HG22	1:B:1246:ARG:N	2.13	0.64
2:Y:75:PHE:O	2:Y:77:PRO:HD3	1.98	0.64
1:A:270:GLY:HA2	1:A:283:MET:HE2	1.80	0.63
1:A:466:TYR:C	1:A:466:TYR:CD1	2.71	0.63
1:B:109:LYS:HD2	1:B:110:HIS:N	2.13	0.63
1:B:249:THR:HG23	1:B:298:GLN:CG	2.28	0.63
1:B:354:LEU:HD21	1:B:448:ALA:O	1.99	0.63
1:B:392:ALA:HB1	1:B:431:LEU:HD21	1.78	0.63
1:B:439:ALA:HB3	1:B:447:GLN:NE2	2.09	0.63
1:B:583:SER:OG	1:B:586:GLN:HB2	1.98	0.63
2:Y:137:PHE:CD1	2:Y:137:PHE:N	2.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:109:LYS:HD2	1:A:110:HIS:N	2.13	0.63
1:A:128:ILE:HB	1:A:215:ALA:HB2	1.80	0.63
1:A:284:GLN:OE1	1:A:310:LEU:HB3	1.97	0.63
2:X:150:ILE:HD12	2:X:150:ILE:C	2.23	0.63
1:B:149:ASN:N	1:B:155:ALA:HB2	2.14	0.63
1:B:790:LEU:HD13	1:B:819:VAL:CG1	2.29	0.63
1:B:1028:GLY:O	1:B:1029:ASN:C	2.41	0.63
1:A:586:GLN:O	1:A:789:ALA:HA	1.98	0.63
1:A:600:VAL:HG12	1:A:601:ALA:H	1.63	0.63
1:A:857:VAL:HG21	1:A:896:VAL:CG1	2.28	0.63
1:A:1280:TYR:C	1:A:1280:TYR:CD2	2.73	0.63
1:A:1461:ILE:O	1:A:1461:ILE:HG22	1.98	0.63
1:B:618:LYS:HB2	1:B:621:GLU:HB3	1.78	0.63
1:B:1427:SER:CB	1:B:1491:ALA:HB1	2.27	0.63
1:A:609:VAL:HG23	1:A:610:TYR:CD2	2.33	0.63
1:A:959:PHE:N	1:A:959:PHE:CD2	2.65	0.63
1:B:361:LEU:O	1:B:454:ALA:HA	1.98	0.63
1:B:491:PRO:C	1:B:493:ILE:N	2.54	0.63
1:B:586:GLN:O	1:B:789:ALA:HA	1.99	0.63
1:B:1008:ALA:HB2	1:B:1059:TYR:CD2	2.33	0.63
1:B:1239:VAL:HG23	1:B:1239:VAL:O	1.98	0.63
2:Y:41:HIS:O	2:Y:42:ASP:HB2	1.98	0.63
1:A:639:GLY:HA3	1:A:645:VAL:N	2.12	0.63
1:A:940:SER:HB2	1:A:959:PHE:HD1	1.63	0.63
2:X:75:PHE:O	2:X:77:PRO:HD3	1.98	0.63
1:B:41:ILE:O	1:B:80:GLN:HA	1.98	0.63
1:A:99:VAL:HB	1:A:121:TYR:OH	1.99	0.63
2:X:170:ARG:O	2:X:174:VAL:HG23	1.98	0.63
1:A:41:ILE:O	1:A:80:GLN:HA	1.99	0.63
1:A:1236:ASP:HB2	1:A:1412:ARG:HH22	1.64	0.63
2:X:41:HIS:O	2:X:42:ASP:HB2	1.99	0.63
1:B:157:ARG:H	1:B:178:ASP:HB3	1.62	0.63
1:B:182:ILE:HG13	1:B:804:ILE:HD11	1.81	0.63
1:B:1202:HIS:HD2	1:B:1204:GLN:H	1.47	0.63
1:B:1247:MET:O	1:B:1251:THR:HG23	1.99	0.63
1:A:1180:LEU:HD21	1:A:1208:ILE:HA	1.81	0.63
1:B:700:TYR:CE1	1:B:758:LEU:HB2	2.33	0.63
1:A:208:ASP:O	1:A:209:PHE:HB2	1.97	0.63
1:A:544:TYR:HD1	1:A:544:TYR:H	1.46	0.63
2:X:131:GLU:O	2:X:131:GLU:HG2	1.98	0.63
1:B:653:PHE:CZ	1:B:660:ASP:HA	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:546:VAL:O	1:A:546:VAL:HG12	1.98	0.62
2:X:78:LYS:HD2	2:X:78:LYS:O	1.99	0.62
1:B:128:ILE:HB	1:B:215:ALA:HB2	1.81	0.62
2:Y:131:GLU:HG2	2:Y:131:GLU:O	1.97	0.62
1:A:31:PHE:HA	1:A:37:GLU:OE2	1.99	0.62
1:A:218:GLU:CD	1:A:220:LYS:HE2	2.23	0.62
1:A:492:TYR:HD2	1:A:493:ILE:N	1.90	0.62
1:A:577:PRO:HD2	1:A:588:VAL:HG23	1.80	0.62
1:A:610:TYR:CB	1:A:614:ARG:HD2	2.29	0.62
1:A:790:LEU:HD13	1:A:819:VAL:CG1	2.29	0.62
1:A:895:LEU:HD13	1:A:1555:PRO:CB	2.26	0.62
1:A:909:ASN:N	1:A:926:THR:HG22	2.14	0.62
1:A:1566:THR:HG21	1:A:1580:THR:OG1	1.99	0.62
1:B:1229:LYS:HD2	1:B:1239:VAL:CG1	2.23	0.62
1:B:1244:THR:HB	1:B:1247:MET:HB2	1.81	0.62
1:A:23:TYR:CA	1:A:43:VAL:HG23	2.29	0.62
1:A:195:ARG:NH2	1:A:1060:ARG:O	2.32	0.62
1:A:261:THR:HG22	1:A:262:GLU:N	2.12	0.62
1:A:270:GLY:N	1:A:283:MET:HE2	2.14	0.62
1:A:442:LEU:HB2	1:A:447:GLN:HE22	1.64	0.62
1:A:1671:ILE:HG23	1:A:1672:PHE:N	2.14	0.62
2:X:140:LYS:O	2:X:146:LEU:HD23	1.99	0.62
1:B:395:ILE:HG22	1:B:401:THR:HG22	1.81	0.62
1:B:1019:PHE:HE2	1:B:1088:GLN:HE21	1.47	0.62
2:Y:103:VAL:HG22	2:Y:122:VAL:HG22	1.81	0.62
1:A:618:LYS:HG3	1:A:621:GLU:OE1	1.97	0.62
1:A:1156:PHE:CZ	1:A:1160:PRO:HA	2.33	0.62
1:A:1239:VAL:HG23	1:A:1239:VAL:O	1.98	0.62
2:X:58:SER:HB3	2:X:102:ASN:ND2	2.14	0.62
1:B:30:ILE:HG22	1:B:31:PHE:O	1.99	0.62
1:B:599:TRP:CH2	1:B:779:LEU:HD13	2.34	0.62
1:B:610:TYR:CB	1:B:614:ARG:HD2	2.30	0.62
2:Y:140:LYS:O	2:Y:146:LEU:HD23	1.98	0.62
1:A:330:ILE:HG22	1:A:337:SER:CB	2.30	0.62
1:A:390:LEU:O	1:A:390:LEU:HG	1.99	0.62
1:A:395:ILE:HG22	1:A:401:THR:HG22	1.81	0.62
1:A:782:ARG:O	1:A:783:ARG:HG3	1.99	0.62
1:A:1594:LYS:O	1:A:1595:ASP:HB2	1.98	0.62
1:A:1599:THR:CG2	1:A:1600:PHE:N	2.63	0.62
1:B:84:ILE:HD11	2:Y:135:PRO:HG3	1.81	0.62
1:B:356:LEU:CD1	1:B:452:TYR:CD1	2.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:215:ALA:C	1:A:216:TYR:CD2	2.78	0.62
1:A:536:PRO:HG3	1:A:624:PHE:HE2	1.63	0.62
1:A:700:TYR:CE1	1:A:758:LEU:HB2	2.34	0.62
2:X:47:HIS:O	2:X:47:HIS:CD2	2.53	0.62
1:B:261:THR:HG22	1:B:262:GLU:N	2.13	0.62
1:B:600:VAL:HG12	1:B:601:ALA:H	1.63	0.62
1:B:838:GLN:HB3	1:B:1486:GLY:HA3	1.81	0.62
1:B:952:THR:OG1	1:B:953:ILE:N	2.30	0.62
1:B:987:ILE:CD1	1:B:1294:ILE:HD13	2.17	0.62
1:B:1280:TYR:CD2	1:B:1281:GLY:N	2.67	0.62
1:A:367:ILE:HG21	1:A:466:TYR:HD2	1.59	0.62
1:A:1180:LEU:HD11	1:A:1208:ILE:N	2.14	0.62
1:A:1372:GLU:HG3	1:A:1373:GLU:H	1.65	0.62
1:B:270:GLY:N	1:B:283:MET:HE2	2.15	0.62
1:B:285:THR:HG23	1:B:681:LYS:HD3	1.82	0.62
1:A:236:ASN:C	1:A:237:PHE:CD2	2.77	0.62
1:A:247:GLU:HG2	1:A:298:GLN:OE1	1.99	0.62
1:A:1262:LYS:O	1:A:1264:ILE:HG13	2.00	0.62
1:A:1518:LYS:HE2	1:A:1529:GLU:OE2	2.00	0.62
2:X:138:VAL:HG11	2:X:177:TYR:CD2	2.33	0.62
1:B:894:HIS:CE1	1:B:895:LEU:O	2.52	0.62
1:B:1096:ASN:ND2	1:B:1099:SER:N	2.38	0.62
1:A:249:THR:HG23	1:A:298:GLN:CG	2.29	0.62
1:A:497:THR:HG23	1:A:498:HIS:N	2.14	0.62
1:A:618:LYS:HB3	1:A:621:GLU:HB3	1.80	0.62
1:A:940:SER:OG	1:A:1361:VAL:HG12	2.00	0.62
1:B:290:THR:O	1:B:291:MET:C	2.42	0.62
1:B:758:LEU:C	1:B:760:VAL:H	2.08	0.62
1:B:961:TYR:HH	1:B:1343:ASN:CG	2.07	0.62
2:Y:189:ILE:HG23	2:Y:226:VAL:HG22	1.82	0.62
1:A:610:TYR:HB2	1:A:614:ARG:HD2	1.82	0.62
1:A:984:VAL:HG11	1:A:1024:TYR:CE1	2.34	0.62
1:A:1202:HIS:HD2	1:A:1204:GLN:H	1.47	0.62
1:B:31:PHE:HA	1:B:37:GLU:OE2	1.99	0.62
1:B:859:MET:HE3	1:B:912:PHE:CZ	2.35	0.62
2:Y:166:ASP:CG	2:Y:201:ILE:HD13	2.25	0.62
1:A:23:TYR:O	1:A:655:THR:HG23	1.99	0.61
1:A:123:ASN:C	1:A:211:THR:HG21	2.25	0.61
1:A:491:PRO:C	1:A:493:ILE:N	2.55	0.61
1:A:758:LEU:C	1:A:760:VAL:H	2.08	0.61
2:X:68:ASN:OD1	2:X:69:GLY:N	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:99:VAL:HB	1:B:121:TYR:OH	1.99	0.61
1:B:909:ASN:N	1:B:926:THR:HG22	2.15	0.61
2:Y:208:GLN:O	2:Y:212:MET:HG3	2.00	0.61
1:A:895:LEU:CD1	1:A:1555:PRO:HB2	2.28	0.61
2:X:78:LYS:NZ	2:X:79:ASP:HB2	2.15	0.61
2:X:189:ILE:HG23	2:X:226:VAL:HG22	1.83	0.61
2:X:208:GLN:O	2:X:212:MET:HG3	2.00	0.61
1:B:968:VAL:HG23	1:B:971:THR:CG2	2.30	0.61
1:B:1132:THR:H	1:B:1135:VAL:HB	1.65	0.61
2:Y:73:VAL:HG12	2:Y:74:ARG:N	2.14	0.61
1:A:473:HIS:N	1:A:473:HIS:CD2	2.67	0.61
1:B:1115:ASN:HD22	1:B:1116:GLY:N	1.98	0.61
1:A:237:PHE:CD2	1:A:237:PHE:N	2.66	0.61
1:A:290:THR:O	1:A:291:MET:C	2.42	0.61
1:A:313:TYR:HE2	1:A:321:LYS:HZ2	1.48	0.61
1:A:442:LEU:CB	1:A:447:GLN:NE2	2.63	0.61
1:A:1202:HIS:CD2	1:A:1203:PRO:CD	2.81	0.61
1:B:385:GLY:N	1:B:411:THR:HG23	2.16	0.61
1:B:1053:MET:HE2	1:B:1086:LEU:HD13	1.82	0.61
2:Y:78:LYS:HD2	2:Y:78:LYS:O	2.00	0.61
1:A:182:ILE:HG13	1:A:804:ILE:HD11	1.82	0.61
1:A:599:TRP:CH2	1:A:779:LEU:HD13	2.34	0.61
1:A:1565:ILE:HD12	1:A:1565:ILE:H	1.66	0.61
1:A:1576:LYS:N	1:A:1576:LYS:HD2	2.15	0.61
1:B:544:TYR:H	1:B:544:TYR:HD1	1.47	0.61
1:B:702:GLY:HA2	1:B:728:PHE:HE1	1.65	0.61
1:B:770:PRO:HG2	1:B:795:THR:HG21	1.82	0.61
1:B:796:THR:HA	1:B:818:LYS:HA	1.82	0.61
1:B:940:SER:HB2	1:B:959:PHE:HD1	1.64	0.61
1:B:1161:LEU:O	1:B:1162:VAL:C	2.44	0.61
1:B:1433:SER:HB2	1:B:1480:PHE:CD1	2.35	0.61
1:B:1464:LEU:N	1:B:1464:LEU:HD12	2.15	0.61
1:A:984:VAL:HG13	1:A:984:VAL:O	2.00	0.61
1:A:1577:TYR:CE2	1:A:1611:LEU:HD11	2.35	0.61
1:B:101:TYR:CE1	1:B:116:ARG:CZ	2.83	0.61
1:B:1372:GLU:HG3	1:B:1373:GLU:H	1.64	0.61
1:A:367:ILE:HD13	1:A:466:TYR:HB2	1.81	0.61
1:A:703:ALA:O	1:A:704:CYS:C	2.43	0.61
1:A:1132:THR:H	1:A:1135:VAL:HB	1.65	0.61
1:A:1520:CYS:HA	1:A:1525:CYS:CB	2.30	0.61
1:B:609:VAL:HG23	1:B:610:TYR:CD2	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:859:MET:HE3	1:B:912:PHE:CE1	2.35	0.61
1:B:1486:GLY:O	1:B:1488:LEU:N	2.33	0.61
1:A:149:ASN:N	1:A:155:ALA:HB2	2.16	0.61
1:A:153:LYS:HB3	1:A:154:PRO:HD2	1.82	0.61
1:A:350:SER:HB2	1:A:446:ASN:O	1.99	0.61
1:A:1016:VAL:HB	1:A:1017:PRO:HD3	1.83	0.61
1:A:1516:ILE:HD12	1:A:1516:ILE:O	2.01	0.61
1:A:1557:ILE:HG23	1:A:1559:TYR:O	2.00	0.61
1:B:528:ILE:H	1:B:528:ILE:HD12	1.65	0.61
2:Y:47:HIS:O	2:Y:47:HIS:CD2	2.54	0.61
1:A:884:VAL:HG12	1:A:1625:LEU:HB3	1.83	0.61
1:A:1247:MET:O	1:A:1251:THR:HG23	2.00	0.61
1:B:251:LYS:HG2	1:B:296:ILE:HD13	1.82	0.61
1:B:707:ASN:HB3	1:B:739:ARG:HH12	1.66	0.61
1:B:950:TYR:CE2	1:B:1356:LEU:HD11	2.35	0.61
1:A:1244:THR:HB	1:A:1247:MET:HB2	1.82	0.60
1:A:1636:ILE:CG1	1:A:1637:TYR:N	2.64	0.60
2:Y:170:ARG:O	2:Y:174:VAL:HG23	2.00	0.60
1:A:156:LYS:C	1:A:157:ARG:HG3	2.26	0.60
1:A:307:VAL:HG12	1:A:313:TYR:O	2.01	0.60
1:A:1183:GLN:OE1	1:A:1183:GLN:HA	2.01	0.60
1:B:1174:PHE:O	1:B:1178:ASN:HB2	2.01	0.60
1:A:796:THR:HA	1:A:818:LYS:HA	1.83	0.60
1:A:1028:GLY:O	1:A:1029:ASN:C	2.42	0.60
1:A:1620:MET:HE3	1:A:1644:TRP:HB3	1.83	0.60
1:B:639:GLY:HA3	1:B:645:VAL:N	2.15	0.60
1:B:700:TYR:HE1	1:B:758:LEU:HB2	1.66	0.60
2:Y:68:ASN:OD1	2:Y:69:GLY:N	2.30	0.60
1:A:982:LEU:N	1:A:982:LEU:CD2	2.64	0.60
1:A:1558:ALA:O	1:A:1559:TYR:HB3	2.00	0.60
1:B:237:PHE:N	1:B:237:PHE:HD2	1.99	0.60
1:B:272:ARG:HB3	1:B:322:TYR:HB2	1.84	0.60
1:B:313:TYR:HE2	1:B:321:LYS:HZ2	1.49	0.60
1:B:330:ILE:HG22	1:B:337:SER:CB	2.31	0.60
1:B:381:GLN:HE21	1:B:381:GLN:H	1.47	0.60
1:B:491:PRO:O	1:B:492:TYR:C	2.44	0.60
1:B:827:MET:HE2	1:B:912:PHE:CZ	2.36	0.60
1:A:272:ARG:HB3	1:A:322:TYR:HB2	1.83	0.60
1:A:859:MET:HE3	1:A:912:PHE:CE1	2.37	0.60
2:X:205:ASP:OD2	2:X:207:LEU:HB2	2.02	0.60
1:B:367:ILE:HD13	1:B:466:TYR:HB2	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:546:VAL:O	1:B:546:VAL:HG12	2.01	0.60
1:B:829:ILE:HG22	1:B:830:PRO:CD	2.32	0.60
1:B:988:LEU:HD23	1:B:1021:VAL:HG22	1.83	0.60
1:B:1244:THR:CG2	1:B:1247:MET:H	2.15	0.60
1:B:1267:VAL:O	1:B:1270:VAL:HB	2.02	0.60
1:A:88:GLN:HB3	1:A:89:PRO:HD2	1.83	0.60
1:A:839:ILE:HG22	1:A:900:VAL:HG23	1.84	0.60
1:A:961:TYR:CE2	1:A:1343:ASN:HA	2.36	0.60
1:B:195:ARG:NH2	1:B:1060:ARG:O	2.34	0.60
1:B:491:PRO:O	1:B:493:ILE:N	2.35	0.60
1:B:982:LEU:N	1:B:982:LEU:CD2	2.62	0.60
1:B:984:VAL:HG11	1:B:1024:TYR:CE1	2.37	0.60
1:A:770:PRO:HG2	1:A:795:THR:HG21	1.82	0.60
1:A:829:ILE:HG22	1:A:830:PRO:CD	2.32	0.60
1:A:1618:LEU:C	1:A:1618:LEU:HD12	2.27	0.60
1:A:1658:GLN:C	1:A:1660:PHE:H	2.09	0.60
1:B:392:ALA:HB3	1:B:404:LEU:HD12	1.84	0.60
1:B:673:LEU:O	1:B:673:LEU:HG	2.02	0.60
1:A:30:ILE:HG22	1:A:31:PHE:O	2.01	0.60
1:A:208:ASP:O	1:A:209:PHE:CB	2.50	0.60
1:A:231:ILE:HD12	1:A:327:VAL:CG2	2.31	0.60
1:A:285:THR:HG23	1:A:681:LYS:HD3	1.83	0.60
1:A:494:ASP:O	1:A:496:ILE:HD12	2.00	0.60
1:A:1229:LYS:HD2	1:A:1239:VAL:CG1	2.22	0.60
1:A:1650:ARG:O	1:A:1652:THR:HG23	2.02	0.60
1:B:23:TYR:CA	1:B:43:VAL:HG23	2.30	0.60
1:B:497:THR:HG23	1:B:498:HIS:N	2.15	0.60
1:B:721:GLY:C	1:B:723:ARG:H	2.10	0.60
1:B:1202:HIS:CD2	1:B:1203:PRO:CD	2.80	0.60
1:A:739:ARG:HD3	1:A:754:MET:SD	2.42	0.60
2:X:166:ASP:CG	2:X:201:ILE:HD13	2.26	0.60
1:B:1016:VAL:CB	1:B:1017:PRO:HD3	2.32	0.60
1:B:1429:PRO:HB2	1:B:1432:ILE:HG13	1.83	0.60
1:A:749:LEU:HG	1:A:750:GLY:H	1.66	0.60
1:A:1433:SER:HB2	1:A:1480:PHE:CD1	2.37	0.60
2:X:132:THR:HG22	2:X:155:ILE:HB	1.83	0.60
1:B:22:THR:O	1:B:43:VAL:HG23	2.02	0.60
1:B:739:ARG:HD3	1:B:754:MET:SD	2.42	0.60
1:B:984:VAL:O	1:B:984:VAL:HG13	2.01	0.60
1:A:101:TYR:CE1	1:A:116:ARG:CZ	2.85	0.59
1:A:528:ILE:HD12	1:A:528:ILE:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1008:ALA:HB2	1:A:1059:TYR:CD2	2.36	0.59
1:A:1673:LEU:HD13	1:B:258:LYS:HE3	1.84	0.59
1:B:123:ASN:C	1:B:211:THR:HG21	2.26	0.59
1:B:428:VAL:HG22	1:B:429:THR:H	1.67	0.59
1:B:695:VAL:HA	1:B:698:CYS:HB2	1.84	0.59
1:B:703:ALA:O	1:B:704:CYS:C	2.44	0.59
1:B:749:LEU:HG	1:B:750:GLY:H	1.67	0.59
1:B:1156:PHE:CE1	1:B:1160:PRO:HA	2.37	0.59
1:B:1341:LEU:HB3	1:B:1342:LEU:HD23	1.84	0.59
1:A:617:LYS:O	1:A:618:LYS:CG	2.46	0.59
1:A:1161:LEU:O	1:A:1162:VAL:C	2.44	0.59
1:B:270:GLY:HA2	1:B:283:MET:HE2	1.83	0.59
1:B:884:VAL:O	1:B:884:VAL:HG23	2.02	0.59
2:Y:132:THR:HG22	2:Y:155:ILE:HB	1.84	0.59
1:A:354:LEU:HD21	1:A:448:ALA:O	2.03	0.59
1:A:491:PRO:O	1:A:492:TYR:C	2.44	0.59
1:B:1423:VAL:HG12	1:B:1463:GLN:HG2	1.83	0.59
1:A:987:ILE:CD1	1:A:1294:ILE:HD13	2.17	0.59
1:A:1142:LEU:HD13	1:A:1187:THR:HG22	1.82	0.59
1:A:1320:LYS:HG2	1:A:1342:LEU:CD1	2.32	0.59
1:B:1053:MET:O	1:B:1056:ILE:HG23	2.02	0.59
1:B:1445:GLY:O	1:B:1448:GLN:N	2.36	0.59
1:A:284:GLN:OE1	1:A:284:GLN:N	2.35	0.59
1:A:428:VAL:HG22	1:A:429:THR:H	1.67	0.59
1:A:1118:PHE:O	1:A:1144:LEU:HD23	2.02	0.59
1:A:1255:LEU:HB2	1:A:1270:VAL:HG11	1.84	0.59
1:A:1267:VAL:O	1:A:1270:VAL:HB	2.02	0.59
1:B:1320:LYS:HG2	1:B:1342:LEU:CD1	2.31	0.59
1:B:1496:TYR:O	1:B:1496:TYR:HD1	1.86	0.59
1:A:357:VAL:O	1:A:359:THR:HG23	2.03	0.59
1:A:700:TYR:HE1	1:A:758:LEU:HB2	1.67	0.59
1:A:930:VAL:CG1	1:A:931:PRO:N	2.65	0.59
1:B:92:LEU:N	1:B:93:PRO:CD	2.66	0.59
1:A:22:THR:O	1:A:43:VAL:HG23	2.03	0.59
1:A:92:LEU:N	1:A:93:PRO:CD	2.65	0.59
1:A:364:LYS:H	1:A:364:LYS:HD2	1.67	0.59
1:A:982:LEU:HD23	1:A:1309:LEU:HD11	1.83	0.59
1:A:1517:GLN:C	1:A:1518:LYS:HG2	2.28	0.59
1:A:1608:ASN:O	1:A:1609:ALA:HB2	2.02	0.59
1:B:470:THR:CG2	1:B:471:ASP:N	2.66	0.59
1:B:1262:LYS:O	1:B:1264:ILE:HG13	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:84:ILE:HD11	2:X:135:PRO:HG3	1.85	0.59
1:A:258:LYS:NZ	1:A:1676:CYS:OXT	2.35	0.59
1:A:721:GLY:C	1:A:723:ARG:H	2.10	0.59
1:A:1174:PHE:O	1:A:1178:ASN:HB2	2.03	0.59
1:A:1623:GLU:HG3	1:A:1624:ALA:N	2.18	0.59
1:A:1668:ALA:O	1:A:1671:ILE:HG22	2.03	0.59
1:B:50:PHE:CB	1:B:109:LYS:HE2	2.33	0.59
1:B:156:LYS:C	1:B:157:ARG:HG3	2.26	0.59
1:B:182:ILE:CG1	1:B:804:ILE:HD11	2.32	0.59
1:B:940:SER:OG	1:B:1361:VAL:HG12	2.03	0.59
1:B:1118:PHE:O	1:B:1144:LEU:HD23	2.02	0.59
1:A:470:THR:CG2	1:A:471:ASP:N	2.65	0.59
1:A:695:VAL:HA	1:A:698:CYS:HB2	1.85	0.59
1:A:1019:PHE:CE2	1:A:1088:GLN:HB3	2.38	0.59
1:A:1445:GLY:O	1:A:1448:GLN:N	2.35	0.59
1:B:494:ASP:O	1:B:496:ILE:HD12	2.03	0.59
1:B:1019:PHE:CE2	1:B:1088:GLN:HB3	2.38	0.59
1:B:1255:LEU:HB2	1:B:1270:VAL:HG11	1.85	0.59
1:B:1271:ILE:C	1:B:1271:ILE:HD12	2.28	0.59
1:A:451:GLY:C	1:A:452:TYR:CD2	2.81	0.59
1:A:707:ASN:HB3	1:A:739:ARG:HH12	1.66	0.59
1:A:1016:VAL:CB	1:A:1017:PRO:HD3	2.33	0.59
1:A:1096:ASN:ND2	1:A:1099:SER:N	2.38	0.59
1:A:1654:CYS:O	1:A:1656:SER:N	2.35	0.59
1:B:218:GLU:CD	1:B:220:LYS:HE2	2.28	0.59
1:B:350:SER:HB2	1:B:446:ASN:O	2.03	0.59
1:B:691:LYS:O	1:B:692:HIS:HB2	2.03	0.59
1:B:1127:ILE:HD12	1:B:1127:ILE:N	2.17	0.59
1:A:695:VAL:O	1:A:698:CYS:HB2	2.03	0.58
1:A:884:VAL:HG23	1:A:884:VAL:O	2.02	0.58
1:A:934:VAL:O	1:A:934:VAL:HG12	2.03	0.58
1:A:1228:TRP:H	1:A:1251:THR:CG2	2.16	0.58
1:A:1244:THR:CG2	1:A:1247:MET:H	2.15	0.58
1:A:1589:GLU:HB2	1:A:1623:GLU:OE1	2.02	0.58
2:X:67:TYR:CG	2:X:68:ASN:N	2.71	0.58
1:B:208:ASP:O	1:B:209:PHE:CB	2.50	0.58
1:B:356:LEU:HG	1:B:452:TYR:CE1	2.38	0.58
1:B:823:VAL:HA	1:B:846:TYR:O	2.03	0.58
1:B:1143:TYR:CD1	1:B:1186:PHE:HE2	2.21	0.58
2:Y:136:LEU:HG	2:Y:136:LEU:O	2.02	0.58
1:A:271:ILE:HG22	1:A:272:ARG:N	2.09	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:491:PRO:O	1:A:493:ILE:N	2.36	0.58
1:A:1535:MET:HB3	1:A:1645:ILE:CD1	2.32	0.58
2:X:170:ARG:HH21	2:X:201:ILE:CG2	2.15	0.58
1:B:82:SER:O	2:Y:137:PHE:HE2	1.86	0.58
1:B:359:THR:HG21	1:B:372:LYS:N	2.18	0.58
1:A:571:LEU:HG	1:A:812:ALA:HB2	1.85	0.58
1:A:840:GLN:HE22	1:A:842:LYS:HE2	1.68	0.58
1:A:1341:LEU:HB3	1:A:1342:LEU:HD23	1.83	0.58
1:A:1521:GLU:CD	1:A:1522:GLY:H	2.11	0.58
1:A:1561:TYR:HD2	1:A:1561:TYR:O	1.87	0.58
1:B:839:ILE:HG22	1:B:900:VAL:HG23	1.85	0.58
1:A:440:PRO:HD2	1:A:441:ASP:H	1.68	0.58
1:A:1053:MET:O	1:A:1056:ILE:HG23	2.04	0.58
1:B:284:GLN:OE1	1:B:284:GLN:N	2.36	0.58
1:B:1525:CYS:O	1:B:1526:LYS:HG2	2.02	0.58
2:Y:137:PHE:N	2:Y:137:PHE:HD1	2.01	0.58
1:A:545:ILE:HG23	1:A:554:LEU:CD2	2.33	0.58
1:A:1143:TYR:CD1	1:A:1186:PHE:HE2	2.21	0.58
1:A:1548:ARG:NH2	1:A:1644:TRP:CD1	2.72	0.58
1:B:96:GLN:O	1:B:98:PRO:CD	2.52	0.58
1:B:451:GLY:C	1:B:452:TYR:CD2	2.81	0.58
2:Y:170:ARG:HH21	2:Y:201:ILE:CG2	2.16	0.58
1:A:295:GLY:C	1:A:296:ILE:HG12	2.28	0.58
1:A:536:PRO:HG3	1:A:624:PHE:CE2	2.39	0.58
1:A:577:PRO:CD	1:A:588:VAL:HG23	2.33	0.58
1:A:702:GLY:HA2	1:A:728:PHE:HE1	1.64	0.58
1:A:1024:TYR:OH	1:A:1306:GLN:NE2	2.37	0.58
1:A:1280:TYR:CD2	1:A:1281:GLY:N	2.72	0.58
1:A:1308:ARG:HG2	1:A:1308:ARG:HH11	1.68	0.58
1:A:1663:ASN:HA	1:A:1666:GLU:HB3	1.86	0.58
1:A:1654:CYS:O	1:A:1655:SER:C	2.46	0.58
1:B:364:LYS:N	1:B:364:LYS:HD2	2.18	0.58
1:B:961:TYR:CE2	1:B:1343:ASN:HA	2.38	0.58
1:A:823:VAL:HA	1:A:846:TYR:O	2.04	0.58
1:B:536:PRO:HG3	1:B:624:PHE:CE2	2.38	0.58
1:B:571:LEU:HG	1:B:812:ALA:HB2	1.85	0.58
1:B:586:GLN:HG2	1:B:587:THR:O	2.03	0.58
1:B:815:VAL:O	1:B:815:VAL:HG12	2.04	0.58
1:B:1465:ASN:ND2	1:B:1465:ASN:H	2.02	0.58
2:Y:205:ASP:OD2	2:Y:207:LEU:HB2	2.03	0.58
1:A:50:PHE:CB	1:A:109:LYS:HE2	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:942:VAL:HG21	1:A:957:LYS:HB3	1.86	0.58
1:A:1142:LEU:HD13	1:A:1187:THR:HG21	1.86	0.58
1:A:1202:HIS:CD2	1:A:1204:GLN:HB3	2.39	0.58
1:A:1616:GLN:NE2	1:B:1521:GLU:OE1	2.37	0.58
1:B:429:THR:OG1	1:B:430:VAL:N	2.33	0.58
1:A:257:ASN:OD1	1:A:893:SER:O	2.22	0.58
1:A:485:ILE:N	1:A:485:ILE:CD1	2.67	0.58
1:A:696:LYS:HZ1	1:A:700:TYR:HD2	1.51	0.58
1:B:1142:LEU:HD13	1:B:1187:THR:HG21	1.85	0.58
1:A:356:LEU:HG	1:A:452:TYR:CE1	2.38	0.57
1:A:682:LYS:HD2	1:A:685:GLU:OE2	2.04	0.57
1:B:88:GLN:HB3	1:B:89:PRO:HD2	1.85	0.57
1:B:682:LYS:HD2	1:B:685:GLU:OE2	2.03	0.57
1:B:1205:PHE:HA	1:B:1208:ILE:HG13	1.86	0.57
2:Y:132:THR:CG2	2:Y:155:ILE:HB	2.34	0.57
1:A:1431:GLY:C	1:A:1432:ILE:HG12	2.28	0.57
1:A:1449:LEU:HG	1:A:1450:PHE:CE1	2.39	0.57
2:X:45:ASP:O	2:X:49:TYR:HD2	1.87	0.57
1:B:609:VAL:HG23	1:B:610:TYR:N	2.15	0.57
2:Y:67:TYR:CG	2:Y:68:ASN:N	2.72	0.57
1:A:323:LEU:C	1:A:323:LEU:HD13	2.30	0.57
2:X:137:PHE:N	2:X:137:PHE:HD1	2.00	0.57
1:B:54:ILE:HG22	1:B:55:SER:N	2.19	0.57
1:B:307:VAL:HG12	1:B:313:TYR:O	2.04	0.57
1:A:1515:LYS:O	1:A:1516:ILE:HG23	2.04	0.57
1:A:1585:TYR:CD1	1:A:1671:ILE:HG21	2.38	0.57
1:B:372:LYS:HA	1:B:419:SER:HA	1.86	0.57
1:B:412:ARG:HB3	1:B:415:ASP:CB	2.33	0.57
1:B:1213:LYS:NZ	1:B:1263:ASP:OD2	2.38	0.57
2:Y:73:VAL:CG1	2:Y:74:ARG:N	2.66	0.57
1:A:488:PRO:O	1:A:489:LYS:O	2.22	0.57
1:A:1205:PHE:HA	1:A:1208:ILE:HG13	1.86	0.57
2:X:107:GLN:HB3	2:X:116:LEU:HD22	1.86	0.57
1:B:577:PRO:CD	1:B:588:VAL:HG23	2.33	0.57
1:B:1003:LEU:N	1:B:1003:LEU:HD23	2.18	0.57
1:B:1308:ARG:HG2	1:B:1308:ARG:HH11	1.70	0.57
1:A:950:TYR:CE2	1:A:1356:LEU:HD11	2.39	0.57
1:A:1216:ALA:HB2	1:A:1228:TRP:NE1	2.18	0.57
1:A:1654:CYS:O	1:A:1654:CYS:SG	2.63	0.57
1:B:1193:TYR:CD1	1:B:1256:LEU:HB3	2.40	0.57
1:B:1264:ILE:HG12	1:B:1303:LEU:HD11	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:600:VAL:HG12	1:A:601:ALA:N	2.19	0.57
1:A:691:LYS:O	1:A:692:HIS:HB2	2.03	0.57
1:A:961:TYR:HH	1:A:1343:ASN:CG	2.12	0.57
1:A:961:TYR:CZ	1:A:1343:ASN:HA	2.39	0.57
1:A:1271:ILE:HD12	1:A:1271:ILE:C	2.30	0.57
1:A:251:LYS:HG2	1:A:296:ILE:HD13	1.87	0.57
1:A:859:MET:HE3	1:A:912:PHE:CZ	2.39	0.57
1:A:1585:TYR:CG	1:A:1671:ILE:HG21	2.39	0.57
1:B:266:TYR:CE2	1:B:755:LYS:HB2	2.39	0.57
1:B:359:THR:HG21	1:B:372:LYS:H	1.70	0.57
1:B:1024:TYR:OH	1:B:1306:GLN:NE2	2.37	0.57
1:B:1030:HIS:O	1:B:1033:ILE:HG13	2.05	0.57
2:Y:107:GLN:HB3	2:Y:116:LEU:HD22	1.87	0.57
1:A:142:LYS:HD3	1:A:775:TRP:CD1	2.40	0.57
1:A:349:LEU:HD22	1:A:446:ASN:HD22	1.69	0.57
1:A:777:VAL:CG1	1:A:778:HIS:N	2.68	0.57
1:A:1000:LEU:HD13	1:A:1282:GLY:HA3	1.87	0.57
1:A:1053:MET:HE2	1:A:1086:LEU:HD13	1.86	0.57
2:X:132:THR:CG2	2:X:155:ILE:HB	2.34	0.57
1:B:531:THR:CG2	1:B:534:MET:HG3	2.34	0.57
1:B:754:MET:O	1:B:755:LYS:HG2	2.05	0.57
1:B:1228:TRP:HE3	1:B:1228:TRP:H	1.53	0.57
1:B:1431:GLY:C	1:B:1432:ILE:HG12	2.29	0.57
2:Y:88:GLY:HA2	2:Y:210:GLU:O	2.05	0.57
2:X:106:VAL:HG22	2:X:163:LYS:CE	2.34	0.57
1:B:123:ASN:HD21	1:B:150:ASP:H	1.51	0.57
1:B:420:PHE:O	1:B:421:VAL:HG23	2.05	0.57
1:B:934:VAL:HG12	1:B:934:VAL:O	2.04	0.57
1:A:237:PHE:N	1:A:237:PHE:HD2	2.01	0.56
1:A:412:ARG:CD	1:A:415:ASP:HB2	2.34	0.56
1:A:1066:TYR:N	1:A:1066:TYR:CD1	2.72	0.56
1:A:1465:ASN:ND2	1:A:1465:ASN:H	2.03	0.56
2:X:102:ASN:CB	2:X:123:THR:HG23	2.35	0.56
1:B:511:HIS:HE2	1:B:531:THR:CG2	2.18	0.56
1:B:695:VAL:O	1:B:698:CYS:HB2	2.04	0.56
1:B:1195:LEU:O	1:B:1197:LEU:N	2.38	0.56
1:A:123:ASN:HD21	1:A:150:ASP:H	1.52	0.56
1:A:292:LEU:HD13	1:A:293:ILE:N	2.20	0.56
1:A:938:SER:HB3	1:A:1279:ARG:CZ	2.35	0.56
1:A:961:TYR:OH	1:A:1343:ASN:HA	2.05	0.56
1:A:1334:LEU:CD2	1:A:1334:LEU:N	2.65	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1538:GLU:C	1:A:1539:LEU:HG	2.29	0.56
1:B:362:PHE:CD1	1:B:639:GLY:O	2.58	0.56
1:B:820:PHE:HZ	1:B:848:TYR:CB	2.18	0.56
1:B:823:VAL:HG13	1:B:846:TYR:O	2.05	0.56
2:Y:55:PHE:HD2	2:Y:105:VAL:CG1	2.19	0.56
1:A:266:TYR:CE2	1:A:755:LYS:HB2	2.41	0.56
1:A:359:THR:HG21	1:A:372:LYS:N	2.20	0.56
1:A:392:ALA:HB3	1:A:404:LEU:HD12	1.86	0.56
1:A:442:LEU:HB2	1:A:447:GLN:NE2	2.20	0.56
1:A:1003:LEU:HD13	1:A:1498:TYR:CE1	2.41	0.56
1:A:1156:PHE:CE1	1:A:1160:PRO:HA	2.39	0.56
1:A:1195:LEU:O	1:A:1197:LEU:N	2.38	0.56
1:A:1280:TYR:HD2	1:A:1281:GLY:N	2.02	0.56
1:A:1496:TYR:O	1:A:1496:TYR:HD1	1.87	0.56
1:B:23:TYR:HE2	1:B:111:PHE:HB3	1.70	0.56
1:B:142:LYS:HD3	1:B:775:TRP:CD1	2.40	0.56
1:B:224:LEU:HD22	1:B:225:PRO:HD3	1.87	0.56
2:Y:45:ASP:O	2:Y:49:TYR:HD2	1.88	0.56
1:A:136:THR:CG2	1:A:222:TYR:HB2	2.33	0.56
1:A:1016:VAL:HG12	1:A:1017:PRO:CD	2.36	0.56
1:B:569:ASN:OD1	1:B:596:MET:HB2	2.04	0.56
2:Y:106:VAL:HG22	2:Y:163:LYS:CE	2.35	0.56
1:A:182:ILE:CG1	1:A:804:ILE:HD11	2.35	0.56
1:A:586:GLN:HG2	1:A:587:THR:O	2.04	0.56
1:A:1024:TYR:HB2	1:A:1298:THR:HG22	1.86	0.56
1:A:1465:ASN:H	1:A:1465:ASN:HD22	1.54	0.56
2:X:73:VAL:CG2	2:X:74:ARG:N	2.67	0.56
1:B:295:GLY:C	1:B:296:ILE:HG12	2.30	0.56
1:B:617:LYS:O	1:B:618:LYS:CG	2.46	0.56
1:B:683:ILE:HD13	1:B:735:ALA:HB2	1.87	0.56
1:B:1431:GLY:HA3	1:B:1483:PHE:HE1	1.70	0.56
1:B:1435:ASN:O	1:B:1436:GLU:C	2.49	0.56
2:Y:136:LEU:C	2:Y:137:PHE:HD1	2.14	0.56
1:A:23:TYR:HE1	1:A:656:ASN:HB2	1.71	0.56
1:A:32:ARG:HB2	1:A:35:ALA:CB	2.35	0.56
1:A:364:LYS:HD2	1:A:364:LYS:N	2.20	0.56
1:A:938:SER:OG	1:A:1279:ARG:HD2	2.06	0.56
2:X:55:PHE:HD2	2:X:105:VAL:CG1	2.18	0.56
2:X:136:LEU:C	2:X:137:PHE:HD1	2.13	0.56
1:B:1003:LEU:HD13	1:B:1498:TYR:CE1	2.41	0.56
1:A:392:ALA:O	1:A:404:LEU:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:420:PHE:N	1:A:420:PHE:CD2	2.72	0.56
1:A:511:HIS:HE2	1:A:531:THR:CG2	2.18	0.56
1:A:827:MET:HE2	1:A:912:PHE:CZ	2.40	0.56
2:X:110:ILE:HG22	2:X:111:ASP:N	2.21	0.56
1:B:82:SER:O	2:Y:137:PHE:CE2	2.59	0.56
1:B:364:LYS:HD2	1:B:364:LYS:H	1.70	0.56
1:B:420:PHE:CD2	1:B:420:PHE:N	2.73	0.56
1:B:710:THR:HG23	1:B:713:GLN:OE1	2.05	0.56
1:B:1080:ALA:O	1:B:1083:LEU:HB2	2.05	0.56
2:Y:104:PHE:CE1	2:Y:164:GLU:HG3	2.41	0.56
1:A:259:VAL:HG23	1:A:260:VAL:O	2.05	0.56
1:A:420:PHE:O	1:A:421:VAL:HG23	2.06	0.56
1:A:438:ASP:O	1:A:439:ALA:C	2.47	0.56
1:A:815:VAL:O	1:A:815:VAL:HG12	2.06	0.56
1:B:600:VAL:HG12	1:B:601:ALA:N	2.20	0.56
1:B:979:VAL:HB	1:B:1326:TYR:OH	2.05	0.56
1:B:1465:ASN:H	1:B:1465:ASN:HD22	1.53	0.56
1:A:820:PHE:HZ	1:A:848:TYR:CB	2.19	0.56
1:A:822:ASP:O	1:A:848:TYR:HB2	2.06	0.56
1:A:859:MET:HB2	1:A:912:PHE:HE1	1.69	0.56
1:A:1264:ILE:HG12	1:A:1303:LEU:HD11	1.88	0.56
2:X:104:PHE:CE1	2:X:164:GLU:HG3	2.41	0.56
1:B:592:MET:HG2	1:B:600:VAL:HG21	1.88	0.56
1:B:961:TYR:CZ	1:B:1343:ASN:HA	2.41	0.56
1:B:1000:LEU:HD13	1:B:1282:GLY:HA3	1.88	0.56
1:A:180:ILE:HD12	1:A:599:TRP:CD2	2.41	0.56
1:A:585:GLY:O	1:A:789:ALA:HB1	2.06	0.56
1:A:733:VAL:O	1:A:737:GLN:HG2	2.06	0.56
1:A:754:MET:O	1:A:755:LYS:HG2	2.06	0.56
1:A:1535:MET:CG	1:A:1609:ALA:HA	2.35	0.56
1:B:349:LEU:HD22	1:B:446:ASN:HD22	1.71	0.56
1:B:412:ARG:CD	1:B:415:ASP:HB2	2.35	0.56
1:B:599:TRP:HB2	1:B:804:ILE:O	2.06	0.56
1:B:1183:GLN:OE1	1:B:1183:GLN:HA	2.05	0.56
1:B:1228:TRP:H	1:B:1251:THR:CG2	2.19	0.56
2:Y:102:ASN:CB	2:Y:123:THR:HG23	2.35	0.56
1:A:362:PHE:CD1	1:A:638:GLY:O	2.58	0.55
1:A:410:VAL:HG12	1:A:411:THR:N	2.21	0.55
1:A:569:ASN:OD1	1:A:596:MET:HB2	2.04	0.55
1:A:1030:HIS:O	1:A:1033:ILE:HG13	2.05	0.55
2:X:88:GLY:HA2	2:X:210:GLU:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:136:LEU:HG	2:X:136:LEU:O	2.05	0.55
1:B:362:PHE:CD1	1:B:638:GLY:O	2.59	0.55
1:B:377:ASP:C	1:B:379:LEU:N	2.63	0.55
1:B:440:PRO:HD2	1:B:441:ASP:H	1.71	0.55
1:A:234:GLU:C	1:A:235:TYR:HD2	2.14	0.55
1:A:986:GLU:HA	1:A:986:GLU:OE2	2.07	0.55
1:A:1208:ILE:O	1:A:1211:ALA:HB3	2.06	0.55
1:A:1255:LEU:HD12	1:A:1267:VAL:HG22	1.88	0.55
1:A:1467:ILE:O	1:A:1468:PRO:O	2.24	0.55
1:A:1534:GLN:O	1:A:1645:ILE:HG13	2.05	0.55
1:B:352:TYR:HB3	1:B:375:VAL:HG13	1.88	0.55
1:B:439:ALA:CB	1:B:447:GLN:HE22	2.14	0.55
1:B:585:GLY:O	1:B:789:ALA:HB1	2.07	0.55
1:B:634:CYS:HB3	1:B:648:LEU:HD23	1.88	0.55
1:B:942:VAL:HG21	1:B:957:LYS:HB3	1.87	0.55
1:A:1003:LEU:HD23	1:A:1003:LEU:N	2.22	0.55
1:A:1435:ASN:O	1:A:1436:GLU:C	2.49	0.55
1:B:247:GLU:HG2	1:B:298:GLN:OE1	2.06	0.55
1:B:259:VAL:HG23	1:B:260:VAL:O	2.06	0.55
1:B:820:PHE:CZ	1:B:848:TYR:HD2	2.23	0.55
1:B:1190:ILE:HG12	1:B:1253:TYR:CZ	2.41	0.55
1:A:23:TYR:HE2	1:A:111:PHE:HB3	1.72	0.55
1:A:131:ASP:OD1	1:A:135:TYR:OH	2.21	0.55
1:A:1348:VAL:HG11	1:A:1359:VAL:CG2	2.35	0.55
1:A:1535:MET:HG2	1:A:1609:ALA:CA	2.33	0.55
1:B:42:GLN:HA	1:B:79:PHE:O	2.07	0.55
1:B:136:THR:CG2	1:B:222:TYR:HB2	2.33	0.55
1:B:1210:SER:O	1:B:1211:ALA:C	2.49	0.55
2:Y:77:PRO:O	2:Y:78:LYS:CG	2.55	0.55
1:A:54:ILE:HG22	1:A:55:SER:N	2.21	0.55
1:A:823:VAL:HG13	1:A:846:TYR:O	2.05	0.55
1:A:1190:ILE:O	1:A:1191:SER:C	2.50	0.55
1:A:1496:TYR:HD1	1:A:1496:TYR:C	2.14	0.55
1:A:1604:VAL:HG12	1:A:1605:THR:N	2.21	0.55
1:B:180:ILE:HD12	1:B:599:TRP:CD2	2.41	0.55
1:B:563:ILE:HG13	1:B:564:GLU:N	2.22	0.55
1:B:961:TYR:OH	1:B:1343:ASN:HA	2.07	0.55
1:A:32:ARG:O	1:A:35:ALA:HB3	2.07	0.55
1:A:127:PHE:HB2	1:A:146:TYR:O	2.06	0.55
1:A:136:THR:O	1:A:139:GLN:HG3	2.06	0.55
1:A:205:TYR:HD1	1:A:211:THR:HG1	1.52	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1522:GLY:O	1:A:1523:ALA:HB3	2.07	0.55
2:X:46:LEU:CD2	2:X:206:LYS:HE3	2.36	0.55
2:X:113:ASN:HD21	2:X:115:ARG:CG	2.18	0.55
1:B:23:TYR:HE1	1:B:656:ASN:HB2	1.71	0.55
1:B:357:VAL:O	1:B:359:THR:HG23	2.07	0.55
1:B:1188:LEU:CD2	1:B:1212:LEU:HA	2.37	0.55
1:B:1496:TYR:HD1	1:B:1496:TYR:C	2.15	0.55
1:B:194:PRO:O	1:B:1070:LYS:NZ	2.40	0.55
1:B:930:VAL:CG1	1:B:931:PRO:N	2.68	0.55
1:B:1419:SER:OG	1:B:1420:SER:N	2.40	0.55
1:A:163:PHE:CD1	1:A:163:PHE:N	2.74	0.55
1:A:450:GLU:HB3	1:A:452:TYR:HE2	1.72	0.55
1:A:673:LEU:HG	1:A:673:LEU:O	2.05	0.55
1:A:707:ASN:HB3	1:A:739:ARG:NH1	2.22	0.55
1:A:777:VAL:HG12	1:A:778:HIS:N	2.22	0.55
1:A:1370:THR:O	1:A:1371:SER:C	2.50	0.55
1:B:253:ARG:HG3	1:B:253:ARG:O	2.07	0.55
1:B:350:SER:OG	1:B:448:ALA:HB2	2.06	0.55
1:B:528:ILE:HG22	1:B:529:PRO:O	2.07	0.55
1:B:707:ASN:HB3	1:B:739:ARG:NH1	2.21	0.55
1:B:936:ARG:NH1	1:B:1002:HIS:CE1	2.75	0.55
1:B:1146:ALA:CB	1:B:1190:ILE:HG22	2.37	0.55
1:A:122:ASP:HA	1:A:211:THR:HG23	1.89	0.55
1:A:224:LEU:HD22	1:A:225:PRO:HD3	1.88	0.55
1:A:359:THR:HG21	1:A:372:LYS:H	1.71	0.55
1:A:385:GLY:N	1:A:411:THR:CG2	2.69	0.55
1:A:683:ILE:HD13	1:A:735:ALA:HB2	1.88	0.55
1:A:1423:VAL:HG12	1:A:1463:GLN:HG2	1.88	0.55
1:A:1464:LEU:HD22	1:A:1466:SER:O	2.07	0.55
1:A:1523:ALA:C	1:A:1525:CYS:H	2.14	0.55
1:B:160:VAL:O	1:B:160:VAL:CG1	2.43	0.55
1:B:777:VAL:CG1	1:B:778:HIS:N	2.70	0.55
1:B:886:GLN:HG2	1:B:894:HIS:NE2	2.20	0.55
1:B:1024:TYR:HB2	1:B:1298:THR:HG22	1.87	0.55
2:Y:110:ILE:HG22	2:Y:111:ASP:N	2.22	0.55
1:A:113:LYS:HG3	1:A:114:SER:N	2.21	0.55
1:A:123:ASN:H	1:A:211:THR:HG23	1.72	0.55
2:X:77:PRO:O	2:X:78:LYS:CG	2.55	0.55
1:B:602:LEU:HB2	1:B:774:LEU:O	2.07	0.55
1:B:733:VAL:O	1:B:737:GLN:HG2	2.07	0.55
1:B:909:ASN:H	1:B:926:THR:HG22	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1066:TYR:CD1	1:B:1066:TYR:N	2.74	0.55
1:B:1283:GLY:HA3	1:B:1290:THR:CG2	2.35	0.55
1:B:1299:GLU:O	1:B:1302:LEU:HB2	2.07	0.55
2:Y:79:ASP:HB3	2:Y:80:GLN:NE2	2.22	0.55
1:A:909:ASN:H	1:A:926:THR:HG22	1.72	0.54
1:A:976:ILE:O	1:A:1361:VAL:HA	2.07	0.54
1:A:1047:LYS:O	1:A:1050:LYS:N	2.39	0.54
1:A:1193:TYR:CD1	1:A:1256:LEU:HB3	2.42	0.54
1:A:1213:LYS:NZ	1:A:1263:ASP:OD2	2.39	0.54
1:A:1548:ARG:HH12	1:A:1618:LEU:HD21	1.72	0.54
1:A:1625:LEU:O	1:A:1625:LEU:HD12	2.08	0.54
1:B:271:ILE:O	1:B:280:LYS:HB2	2.07	0.54
1:B:365:PRO:HD2	1:B:464:TYR:CE2	2.42	0.54
1:B:1202:HIS:CD2	1:B:1204:GLN:HB3	2.41	0.54
1:B:1262:LYS:C	1:B:1264:ILE:H	2.15	0.54
2:Y:45:ASP:HB3	2:Y:49:TYR:HE2	1.72	0.54
1:A:123:ASN:C	1:A:123:ASN:ND2	2.52	0.54
1:A:820:PHE:CZ	1:A:848:TYR:HD2	2.24	0.54
1:B:85:LEU:O	1:B:86:THR:CB	2.49	0.54
1:B:236:ASN:C	1:B:237:PHE:HD2	2.13	0.54
1:B:1023:HIS:HD2	1:B:1092:TYR:HH	1.51	0.54
1:B:1076:THR:HG22	1:B:1077:TRP:N	2.22	0.54
1:B:1208:ILE:O	1:B:1211:ALA:HB3	2.06	0.54
1:B:1259:LEU:CD1	1:B:1300:TYR:HB2	2.36	0.54
1:A:123:ASN:N	1:A:211:THR:CG2	2.70	0.54
1:A:198:MET:HE1	1:A:218:GLU:HB2	1.89	0.54
1:A:243:PHE:CE1	1:A:316:GLU:CG	2.90	0.54
1:A:936:ARG:NH1	1:A:1002:HIS:CE1	2.76	0.54
1:A:982:LEU:CD2	1:A:1309:LEU:HD11	2.38	0.54
2:X:49:TYR:HB2	2:X:206:LYS:HZ2	1.71	0.54
1:B:32:ARG:HB2	1:B:35:ALA:CB	2.37	0.54
1:B:1047:LYS:O	1:B:1050:LYS:N	2.40	0.54
2:Y:61:SER:N	2:Y:75:PHE:HZ	2.05	0.54
1:A:98:PRO:O	1:A:100:SER:N	2.40	0.54
1:A:362:PHE:CD1	1:A:639:GLY:O	2.60	0.54
1:A:386:VAL:O	1:A:410:VAL:HG13	2.07	0.54
1:A:470:THR:CG2	1:A:471:ASP:H	2.20	0.54
1:A:609:VAL:HG23	1:A:610:TYR:N	2.16	0.54
1:A:1080:ALA:O	1:A:1083:LEU:HB2	2.06	0.54
1:A:1636:ILE:HG13	1:A:1637:TYR:N	2.13	0.54
1:B:54:ILE:HG12	1:B:106:VAL:HG22	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:354:LEU:HD21	1:B:448:ALA:C	2.33	0.54
1:B:778:HIS:CE1	1:B:786:LEU:CD1	2.89	0.54
1:B:822:ASP:O	1:B:848:TYR:HB2	2.08	0.54
1:B:837:GLU:CG	1:B:1488:LEU:HA	2.37	0.54
1:A:368:PRO:O	1:A:370:PRO:HD3	2.07	0.54
1:A:377:ASP:C	1:A:379:LEU:N	2.62	0.54
1:A:543:TYR:HB3	1:A:556:SER:CB	2.37	0.54
1:A:592:MET:HG2	1:A:600:VAL:HG21	1.89	0.54
1:A:907:LEU:HD12	1:A:908:HIS:N	2.22	0.54
1:A:1591:VAL:O	1:A:1592:ALA:HB2	2.08	0.54
2:X:111:ASP:CG	2:X:112:PRO:HD2	2.33	0.54
1:B:113:LYS:HG3	1:B:114:SER:N	2.22	0.54
1:B:131:ASP:HB3	1:B:142:LYS:HB2	1.89	0.54
1:B:193:ASN:OD1	1:B:1070:LYS:CE	2.56	0.54
1:B:257:ASN:OD1	1:B:893:SER:O	2.25	0.54
1:B:282:MET:HE2	1:B:282:MET:HA	1.89	0.54
1:B:292:LEU:HD13	1:B:293:ILE:N	2.23	0.54
1:B:470:THR:CG2	1:B:471:ASP:H	2.21	0.54
1:B:814:THR:OG1	1:B:815:VAL:N	2.39	0.54
1:B:1514:ILE:CG2	1:B:1515:LYS:N	2.71	0.54
1:A:24:VAL:HG22	1:A:655:THR:OG1	2.08	0.54
1:A:504:LEU:CD1	1:A:509:ILE:HG12	2.38	0.54
1:A:531:THR:CG2	1:A:534:MET:HG3	2.37	0.54
1:A:616:ALA:O	1:A:617:LYS:C	2.51	0.54
1:A:1244:THR:HG22	1:A:1246:ARG:H	1.72	0.54
1:A:1496:TYR:C	1:A:1496:TYR:CD1	2.86	0.54
1:B:98:PRO:O	1:B:100:SER:N	2.39	0.54
1:B:237:PHE:CE1	1:B:378:SER:O	2.61	0.54
1:B:388:VAL:HG12	1:B:388:VAL:O	2.08	0.54
1:B:704:CYS:O	1:B:705:VAL:HG13	2.07	0.54
1:B:1182:ALA:HB2	1:B:1188:LEU:HD13	1.90	0.54
1:A:96:GLN:O	1:A:98:PRO:CD	2.52	0.54
1:A:365:PRO:HD2	1:A:464:TYR:CE2	2.43	0.54
1:A:1464:LEU:HD12	1:A:1464:LEU:N	2.23	0.54
1:B:385:GLY:N	1:B:411:THR:CG2	2.71	0.54
1:B:545:ILE:HG23	1:B:554:LEU:CD2	2.35	0.54
1:B:721:GLY:C	1:B:723:ARG:N	2.66	0.54
1:B:986:GLU:OE2	1:B:986:GLU:HA	2.06	0.54
1:A:350:SER:OG	1:A:448:ALA:HB2	2.08	0.54
1:A:384:GLY:CA	1:A:411:THR:HG23	2.36	0.54
1:A:470:THR:HG22	1:A:471:ASP:H	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:901:LEU:HD23	1:A:901:LEU:O	2.08	0.54
1:A:1515:LYS:O	1:A:1516:ILE:CG1	2.54	0.54
1:A:1673:LEU:HD22	1:B:258:LYS:HG3	1.90	0.54
2:X:61:SER:N	2:X:75:PHE:HZ	2.05	0.54
1:B:136:THR:O	1:B:139:GLN:HG3	2.07	0.54
1:B:153:LYS:HE2	2:Y:133:ASN:OD1	2.08	0.54
1:B:643:ALA:O	1:B:644:ASN:C	2.50	0.54
1:A:544:TYR:CE2	1:A:546:VAL:HG23	2.43	0.54
1:A:602:LEU:HB2	1:A:774:LEU:O	2.07	0.54
1:A:1182:ALA:HB2	1:A:1188:LEU:HD13	1.90	0.54
1:A:1453:TYR:HA	1:A:1462:LEU:HD23	1.90	0.54
2:X:79:ASP:HB3	2:X:80:GLN:NE2	2.22	0.54
2:X:125:LYS:HA	2:X:126:ASN:C	2.32	0.54
1:B:991:VAL:HG21	1:B:1017:PRO:O	2.08	0.54
1:A:239:GLY:O	1:A:240:TYR:C	2.50	0.54
1:A:704:CYS:O	1:A:705:VAL:HG13	2.08	0.54
1:B:1153:ARG:NH1	1:B:1168:LEU:HD13	2.23	0.54
2:Y:125:LYS:HA	2:Y:126:ASN:C	2.32	0.54
1:A:267:ILE:HG12	1:A:327:VAL:HG13	1.90	0.53
1:A:814:THR:OG1	1:A:815:VAL:N	2.40	0.53
1:B:198:MET:HE1	1:B:218:GLU:HB2	1.90	0.53
1:B:392:ALA:O	1:B:404:LEU:HB2	2.09	0.53
1:B:646:PHE:O	1:B:649:ALA:HB3	2.08	0.53
1:B:847:ASN:ND2	1:B:853:MET:HG2	2.23	0.53
1:B:1514:ILE:HG22	1:B:1515:LYS:N	2.22	0.53
1:A:234:GLU:C	1:A:235:TYR:CD2	2.86	0.53
1:A:242:ASN:CB	1:A:245:ASN:O	2.56	0.53
1:A:350:SER:CB	1:A:446:ASN:O	2.56	0.53
1:A:506:LYS:NZ	1:A:536:PRO:HD2	2.22	0.53
1:A:1076:THR:HG22	1:A:1077:TRP:N	2.24	0.53
1:A:1133:LEU:N	1:A:1134:PRO:CD	2.71	0.53
1:A:1262:LYS:C	1:A:1264:ILE:H	2.16	0.53
1:A:1283:GLY:HA3	1:A:1290:THR:CG2	2.39	0.53
1:B:193:ASN:OD1	1:B:1070:LYS:HE2	2.08	0.53
1:B:438:ASP:O	1:B:439:ALA:C	2.51	0.53
1:B:488:PRO:O	1:B:489:LYS:O	2.26	0.53
1:B:1133:LEU:N	1:B:1134:PRO:CD	2.70	0.53
1:B:1449:LEU:HG	1:B:1450:PHE:CE1	2.43	0.53
1:A:177:ILE:C	1:A:177:ILE:HD12	2.33	0.53
1:A:563:ILE:HG13	1:A:564:GLU:N	2.21	0.53
1:A:922:ILE:HD12	3:C:1:NAG:C8	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:988:LEU:HD23	1:A:1021:VAL:HG22	1.91	0.53
1:A:1188:LEU:CD2	1:A:1212:LEU:HA	2.38	0.53
1:A:1245:ALA:HA	1:A:1285:TYR:HB3	1.89	0.53
1:A:1624:ALA:HB2	1:A:1636:ILE:HD12	1.90	0.53
1:A:1673:LEU:HD13	1:B:258:LYS:CE	2.39	0.53
1:B:696:LYS:NZ	1:B:700:TYR:CD2	2.76	0.53
1:B:1190:ILE:O	1:B:1191:SER:C	2.51	0.53
1:B:1227:PHE:C	1:B:1228:TRP:CE3	2.86	0.53
2:Y:57:TYR:HD2	2:Y:58:SER:N	2.02	0.53
1:A:59:TYR:HA	1:A:103:TYR:CD1	2.44	0.53
1:B:55:SER:HB3	1:B:68:SER:CB	2.32	0.53
1:B:528:ILE:HD12	1:B:528:ILE:N	2.24	0.53
1:B:857:VAL:HA	1:B:913:SER:O	2.09	0.53
1:A:354:LEU:H	1:A:354:LEU:CD2	2.18	0.53
1:A:372:LYS:HA	1:A:419:SER:HA	1.89	0.53
1:A:614:ARG:HH22	1:A:798:GLU:CD	2.16	0.53
1:A:1045:LEU:O	1:A:1049:LEU:HB2	2.09	0.53
1:A:1104:LEU:HD13	1:A:1164:ILE:CD1	2.38	0.53
1:A:1649:PRO:C	1:A:1651:ASP:N	2.65	0.53
1:B:205:TYR:HD1	1:B:211:THR:HG1	1.55	0.53
1:B:384:GLY:CA	1:B:411:THR:HG23	2.37	0.53
1:B:614:ARG:HH22	1:B:798:GLU:CD	2.16	0.53
1:B:936:ARG:HB3	1:B:1364:VAL:HG22	1.89	0.53
1:B:1091:LYS:HE2	1:B:1092:TYR:CE1	2.44	0.53
1:B:1310:SER:O	1:B:1310:SER:OG	2.25	0.53
1:B:1320:LYS:HD2	1:B:1321:GLY:H	1.74	0.53
2:Y:111:ASP:CG	2:Y:112:PRO:HD2	2.33	0.53
2:Y:113:ASN:HD21	2:Y:115:ARG:CG	2.18	0.53
1:A:847:ASN:ND2	1:A:853:MET:HG2	2.23	0.53
1:A:1648:TRP:CZ3	1:A:1664:LEU:HD22	2.44	0.53
2:X:45:ASP:HB3	2:X:49:TYR:HE2	1.72	0.53
2:X:68:ASN:CG	2:X:69:GLY:H	2.15	0.53
1:B:59:TYR:HA	1:B:103:TYR:CD1	2.43	0.53
1:B:120:THR:CG2	1:B:121:TYR:H	2.17	0.53
1:B:131:ASP:OD1	1:B:132:LYS:N	2.41	0.53
1:B:195:ARG:HD3	1:B:1058:SER:HA	1.91	0.53
1:B:234:GLU:C	1:B:235:TYR:HD2	2.17	0.53
1:B:242:ASN:CB	1:B:245:ASN:O	2.56	0.53
1:B:640:LEU:HB3	1:B:644:ASN:OD1	2.08	0.53
1:B:1016:VAL:HG12	1:B:1017:PRO:CD	2.38	0.53
1:B:1028:GLY:O	1:B:1029:ASN:O	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1485:VAL:HG21	1:B:1488:LEU:HB3	1.89	0.53
2:Y:55:PHE:HD2	2:Y:105:VAL:HG13	1.73	0.53
2:Y:211:ARG:C	2:Y:213:GLY:H	2.17	0.53
1:A:599:TRP:HB2	1:A:804:ILE:O	2.08	0.53
1:A:979:VAL:HB	1:A:1326:TYR:OH	2.08	0.53
1:A:1279:ARG:CG	1:A:1284:PHE:CB	2.56	0.53
1:A:1535:MET:CB	1:A:1645:ILE:HD11	2.39	0.53
1:B:466:TYR:HD1	1:B:467:ILE:N	2.07	0.53
1:B:1453:TYR:HA	1:B:1462:LEU:HD23	1.90	0.53
1:A:352:TYR:HB3	1:A:375:VAL:HG13	1.90	0.53
1:A:388:VAL:O	1:A:388:VAL:HG12	2.07	0.53
1:A:635:GLY:C	1:A:673:LEU:HA	2.34	0.53
1:A:1259:LEU:CD1	1:A:1300:TYR:HB2	2.37	0.53
2:X:79:ASP:C	2:X:80:GLN:HE21	2.16	0.53
1:B:59:TYR:CD2	1:B:60:PRO:HD3	2.44	0.53
1:B:123:ASN:N	1:B:211:THR:CG2	2.72	0.53
1:B:371:ILE:O	1:B:371:ILE:CG2	2.46	0.53
1:B:492:TYR:O	1:B:493:ILE:HG13	2.09	0.53
1:B:544:TYR:CE2	1:B:546:VAL:HG23	2.43	0.53
1:B:696:LYS:HE3	1:B:700:TYR:CD2	2.44	0.53
1:B:1008:ALA:N	1:B:1068:VAL:O	2.38	0.53
1:B:1030:HIS:CE1	1:B:1306:GLN:HE21	2.27	0.53
1:B:1238:SER:C	1:B:1240:PRO:CD	2.82	0.53
1:B:1239:VAL:O	1:B:1241:ASN:N	2.42	0.53
2:Y:79:ASP:C	2:Y:80:GLN:HE21	2.17	0.53
1:A:42:GLN:HA	1:A:79:PHE:O	2.08	0.53
1:A:54:ILE:HG12	1:A:106:VAL:HG22	1.90	0.53
1:A:195:ARG:HD3	1:A:1058:SER:HA	1.90	0.53
1:A:359:THR:CG2	1:A:372:LYS:HG3	2.39	0.53
1:A:646:PHE:O	1:A:649:ALA:HB3	2.09	0.53
1:A:778:HIS:CE1	1:A:786:LEU:CD1	2.90	0.53
1:A:820:PHE:CE2	1:A:821:LYS:O	2.62	0.53
1:A:829:ILE:CG1	1:A:925:LYS:HG2	2.39	0.53
1:A:1023:HIS:HD2	1:A:1092:TYR:HH	1.55	0.53
1:A:1320:LYS:HD2	1:A:1321:GLY:H	1.74	0.53
1:A:1585:TYR:HB3	1:A:1671:ILE:CG1	2.35	0.53
1:B:149:ASN:O	1:B:152:LEU:N	2.37	0.53
1:B:350:SER:CB	1:B:446:ASN:O	2.57	0.53
1:B:976:ILE:O	1:B:1361:VAL:HA	2.09	0.53
1:A:131:ASP:OD1	1:A:132:LYS:N	2.42	0.53
1:A:935:LYS:O	1:A:1365:VAL:O	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1016:VAL:HG12	1:A:1017:PRO:N	2.23	0.53
1:A:1231:ASN:HD22	1:A:1232:LEU:N	2.07	0.53
1:A:1429:PRO:HB2	1:A:1432:ILE:HG13	1.90	0.53
1:B:354:LEU:HD22	1:B:354:LEU:N	2.21	0.53
1:B:901:LEU:O	1:B:901:LEU:HD23	2.09	0.53
1:B:1016:VAL:HG12	1:B:1017:PRO:N	2.24	0.53
1:B:1279:ARG:CG	1:B:1284:PHE:CB	2.57	0.53
1:B:1348:VAL:HG11	1:B:1359:VAL:CG2	2.39	0.53
1:A:120:THR:CG2	1:A:121:TYR:H	2.18	0.52
1:A:354:LEU:HD22	1:A:354:LEU:N	2.20	0.52
1:A:528:ILE:HG22	1:A:529:PRO:O	2.09	0.52
1:A:576:SER:CB	1:A:577:PRO:HD3	2.39	0.52
1:A:857:VAL:HA	1:A:913:SER:O	2.09	0.52
1:A:1189:ALA:HB1	1:A:1253:TYR:CB	2.38	0.52
1:B:122:ASP:HA	1:B:211:THR:HG23	1.90	0.52
1:B:576:SER:CB	1:B:577:PRO:HD3	2.39	0.52
1:B:1245:ALA:HA	1:B:1285:TYR:HB3	1.91	0.52
1:A:59:TYR:CD2	1:A:60:PRO:HD3	2.43	0.52
1:A:82:SER:O	2:X:137:PHE:HE2	1.91	0.52
1:A:113:LYS:HD3	1:A:656:ASN:OD1	2.08	0.52
1:A:379:LEU:HB3	1:A:381:GLN:NE2	2.25	0.52
1:A:466:TYR:HD1	1:A:467:ILE:N	2.07	0.52
1:A:1153:ARG:NH1	1:A:1168:LEU:HD13	2.24	0.52
2:X:215:VAL:O	2:X:216:LEU:HD13	2.09	0.52
1:B:271:ILE:HD11	1:B:283:MET:SD	2.48	0.52
1:B:804:ILE:HG22	1:B:809:ILE:HA	1.90	0.52
1:B:935:LYS:O	1:B:1365:VAL:O	2.27	0.52
1:B:1045:LEU:O	1:B:1049:LEU:HB2	2.09	0.52
1:B:1113:LEU:C	1:B:1115:ASN:H	2.17	0.52
1:B:1502:ASP:C	1:B:1503:LYS:HD2	2.35	0.52
1:A:235:TYR:CD2	1:A:235:TYR:N	2.77	0.52
1:A:354:LEU:HD21	1:A:448:ALA:C	2.35	0.52
1:A:491:PRO:HG3	1:A:544:TYR:OH	2.09	0.52
1:A:736:SER:O	1:A:739:ARG:HG2	2.09	0.52
1:A:1228:TRP:N	1:A:1251:THR:HG22	2.24	0.52
2:X:110:ILE:HG22	2:X:111:ASP:O	2.08	0.52
1:B:487:THR:HG22	1:B:523:TYR:HB3	1.91	0.52
1:B:777:VAL:HG12	1:B:778:HIS:N	2.23	0.52
1:A:147:SER:O	1:A:148:LEU:HD12	2.10	0.52
1:A:290:THR:O	1:A:290:THR:CG2	2.57	0.52
1:A:1419:SER:OG	1:A:1420:SER:N	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1602:LYS:HD3	1:A:1602:LYS:N	2.24	0.52
1:B:511:HIS:HE2	1:B:531:THR:HG21	1.73	0.52
1:B:592:MET:HB3	1:B:780:VAL:HG11	1.91	0.52
1:B:907:LEU:HD12	1:B:908:HIS:N	2.21	0.52
1:B:1326:TYR:N	1:B:1326:TYR:CD2	2.78	0.52
1:B:1496:TYR:C	1:B:1496:TYR:CD1	2.85	0.52
1:B:1511:THR:HG23	1:B:1511:THR:O	2.09	0.52
2:Y:110:ILE:HG22	2:Y:111:ASP:O	2.09	0.52
2:Y:215:VAL:O	2:Y:216:LEU:HD13	2.09	0.52
1:A:226:HIS:CD2	1:A:336:PHE:CE2	2.97	0.52
1:A:236:ASN:C	1:A:237:PHE:HD2	2.18	0.52
1:A:282:MET:HE2	1:A:282:MET:HA	1.91	0.52
1:A:936:ARG:CB	1:A:1364:VAL:HG22	2.40	0.52
1:A:1027:THR:O	1:A:1027:THR:HG23	2.09	0.52
2:X:111:ASP:HB3	2:X:115:ARG:HG2	1.92	0.52
1:B:27:ALA:CB	1:B:39:ILE:HD12	2.40	0.52
1:B:205:TYR:HD1	1:B:211:THR:OG1	1.93	0.52
1:B:367:ILE:CD1	1:B:466:TYR:HB2	2.40	0.52
1:B:506:LYS:NZ	1:B:536:PRO:HD2	2.24	0.52
1:B:590:LEU:HD22	1:B:799:ILE:HD11	1.92	0.52
1:B:616:ALA:O	1:B:617:LYS:C	2.51	0.52
1:B:1279:ARG:HD3	1:B:1284:PHE:CD2	2.44	0.52
1:A:357:VAL:O	1:A:358:ALA:C	2.52	0.52
1:A:492:TYR:O	1:A:493:ILE:HG13	2.09	0.52
1:A:592:MET:HE1	1:A:786:LEU:HD22	1.92	0.52
1:A:710:THR:HG23	1:A:713:GLN:OE1	2.07	0.52
1:A:721:GLY:C	1:A:723:ARG:N	2.66	0.52
1:A:837:GLU:CG	1:A:1488:LEU:HA	2.40	0.52
1:A:1189:ALA:HB1	1:A:1253:TYR:HB2	1.90	0.52
1:A:1239:VAL:O	1:A:1241:ASN:N	2.42	0.52
1:A:1622:LYS:C	1:A:1637:TYR:HE2	2.18	0.52
1:A:1658:GLN:HG3	1:A:1659:ALA:H	1.74	0.52
2:X:146:LEU:C	2:X:146:LEU:HD22	2.35	0.52
1:B:32:ARG:O	1:B:35:ALA:HB3	2.09	0.52
1:B:123:ASN:H	1:B:211:THR:HG23	1.73	0.52
1:B:136:THR:O	1:B:137:PRO:C	2.53	0.52
1:B:239:GLY:O	1:B:240:TYR:C	2.51	0.52
1:B:379:LEU:HB3	1:B:381:GLN:NE2	2.24	0.52
1:B:410:VAL:HG12	1:B:411:THR:N	2.22	0.52
1:B:450:GLU:HB3	1:B:452:TYR:HE2	1.73	0.52
1:B:625:GLN:O	1:B:629:LYS:HE2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1216:ALA:HB2	1:B:1228:TRP:NE1	2.24	0.52
1:B:1244:THR:HB	1:B:1247:MET:HE3	1.92	0.52
1:A:193:ASN:OD1	1:A:1070:LYS:HE2	2.10	0.52
1:A:367:ILE:CD1	1:A:466:TYR:HB2	2.40	0.52
1:A:663:GLN:O	1:A:664:GLU:O	2.28	0.52
1:A:804:ILE:HG22	1:A:809:ILE:HA	1.91	0.52
1:A:1408:TYR:O	1:A:1410:PRO:HD3	2.10	0.52
1:A:1582:LEU:O	1:A:1583:ASP:CG	2.52	0.52
2:X:67:TYR:HB3	2:X:72:VAL:HG21	1.92	0.52
2:X:101:GLN:HA	2:X:125:LYS:HB3	1.91	0.52
2:X:211:ARG:C	2:X:213:GLY:H	2.16	0.52
1:B:43:VAL:HG22	1:B:44:TYR:N	2.24	0.52
1:B:177:ILE:C	1:B:177:ILE:HD12	2.34	0.52
1:A:460:LEU:C	1:A:462:GLN:H	2.18	0.52
1:A:541:LEU:CD1	1:A:645:VAL:HG12	2.40	0.52
1:A:786:LEU:N	1:A:786:LEU:CD2	2.69	0.52
1:A:1238:SER:C	1:A:1240:PRO:CD	2.82	0.52
1:A:1652:THR:CB	1:B:868:SER:HB3	2.39	0.52
1:B:936:ARG:CB	1:B:1364:VAL:HG22	2.39	0.52
1:B:1246:ARG:O	1:B:1250:THR:HG23	2.10	0.52
2:Y:101:GLN:HA	2:Y:125:LYS:HB3	1.91	0.52
1:A:487:THR:HG22	1:A:523:TYR:HB3	1.92	0.52
1:A:592:MET:HB3	1:A:780:VAL:HG11	1.91	0.52
1:A:634:CYS:HB3	1:A:648:LEU:HD23	1.92	0.52
1:A:653:PHE:CE2	1:A:660:ASP:HA	2.45	0.52
1:A:1244:THR:CG2	1:A:1246:ARG:H	2.23	0.52
1:A:1578:LYS:HD2	1:A:1599:THR:OG1	2.10	0.52
1:A:1669:GLU:HA	1:A:1672:PHE:HE2	1.74	0.52
2:X:169:ILE:CG2	2:X:189:ILE:HD13	2.38	0.52
1:B:24:VAL:HG22	1:B:655:THR:OG1	2.10	0.52
1:B:272:ARG:O	1:B:321:LYS:HB2	2.09	0.52
1:B:326:ALA:HA	1:B:341:GLU:HA	1.92	0.52
1:B:628:GLU:HG3	1:B:628:GLU:O	2.10	0.52
1:B:736:SER:O	1:B:739:ARG:HG2	2.09	0.52
1:B:1213:LYS:HG3	1:B:1266:TYR:CZ	2.44	0.52
1:B:1231:ASN:HD22	1:B:1232:LEU:N	2.07	0.52
1:A:193:ASN:OD1	1:A:1070:LYS:CE	2.58	0.52
1:A:198:MET:HA	1:A:198:MET:CE	2.36	0.52
1:A:412:ARG:HB3	1:A:415:ASP:CB	2.32	0.52
1:A:780:VAL:HG13	1:A:783:ARG:C	2.35	0.52
1:A:991:VAL:HG21	1:A:1017:PRO:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1535:MET:CA	1:A:1645:ILE:HD11	2.40	0.52
2:X:60:VAL:HB	2:X:75:PHE:CZ	2.45	0.52
2:X:139:ASN:CB	2:X:146:LEU:HD21	2.39	0.52
1:B:592:MET:HE1	1:B:786:LEU:HD22	1.92	0.52
1:B:786:LEU:HD23	1:B:786:LEU:H	1.73	0.52
2:Y:146:LEU:HD22	2:Y:146:LEU:C	2.35	0.52
1:A:640:LEU:HD12	1:A:640:LEU:O	2.10	0.51
1:A:643:ALA:O	1:A:644:ASN:C	2.52	0.51
1:A:721:GLY:O	1:A:723:ARG:N	2.43	0.51
1:A:936:ARG:HB3	1:A:1364:VAL:HG22	1.91	0.51
1:A:968:VAL:CG2	1:A:971:THR:HG21	2.36	0.51
1:A:1028:GLY:O	1:A:1029:ASN:O	2.27	0.51
1:A:1077:TRP:NE1	1:A:1147:PHE:CE1	2.78	0.51
1:A:1096:ASN:HD22	1:A:1099:SER:H	1.52	0.51
1:A:1120:GLU:OE2	1:A:1121:ASN:N	2.43	0.51
1:A:1644:TRP:O	1:A:1645:ILE:C	2.53	0.51
1:A:1674:ASN:N	1:B:258:LYS:HE3	2.25	0.51
1:B:196:TYR:CZ	1:B:221:GLU:HB2	2.45	0.51
1:B:367:ILE:HD13	1:B:466:TYR:CD2	2.45	0.51
1:B:663:GLN:O	1:B:664:GLU:O	2.28	0.51
1:B:1189:ALA:HB1	1:B:1253:TYR:CB	2.41	0.51
2:Y:67:TYR:HB3	2:Y:72:VAL:HG21	1.92	0.51
2:Y:68:ASN:CG	2:Y:69:GLY:H	2.16	0.51
2:Y:111:ASP:HB3	2:Y:115:ARG:HG2	1.92	0.51
1:A:73:LEU:HD23	1:A:73:LEU:N	2.24	0.51
1:A:450:GLU:HB3	1:A:452:TYR:CE2	2.45	0.51
1:A:942:VAL:HG12	1:A:943:THR:N	2.24	0.51
1:A:1210:SER:O	1:A:1211:ALA:C	2.53	0.51
1:A:1220:GLY:O	1:A:1222:PRO:O	2.27	0.51
1:A:1300:TYR:C	1:A:1300:TYR:CD2	2.88	0.51
2:X:55:PHE:HD2	2:X:105:VAL:HG13	1.73	0.51
1:B:908:HIS:N	1:B:908:HIS:ND1	2.57	0.51
1:B:1213:LYS:HG3	1:B:1266:TYR:OH	2.10	0.51
2:Y:139:ASN:CB	2:Y:146:LEU:HD21	2.39	0.51
1:A:271:ILE:O	1:A:280:LYS:HB2	2.10	0.51
1:A:936:ARG:CZ	1:A:1002:HIS:HE1	2.24	0.51
1:A:1091:LYS:HE2	1:A:1092:TYR:CE1	2.44	0.51
1:A:1190:ILE:HG12	1:A:1253:TYR:CZ	2.45	0.51
1:A:1326:TYR:CD2	1:A:1326:TYR:N	2.77	0.51
1:A:1467:ILE:O	1:A:1467:ILE:HG22	2.10	0.51
1:B:339:GLU:HB2	1:B:766:ARG:HH21	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:131:ASP:HB3	1:A:142:LYS:HB2	1.91	0.51
1:A:137:PRO:O	1:A:138:ASP:HB2	2.10	0.51
1:A:599:TRP:CZ2	1:A:779:LEU:HD13	2.46	0.51
1:A:908:HIS:N	1:A:908:HIS:ND1	2.58	0.51
1:A:1060:ARG:NH2	1:A:1064:TYR:CE1	2.79	0.51
1:A:1299:GLU:O	1:A:1302:LEU:HB2	2.10	0.51
1:A:1594:LYS:O	1:A:1595:ASP:CB	2.58	0.51
1:B:290:THR:O	1:B:290:THR:CG2	2.57	0.51
1:B:485:ILE:N	1:B:485:ILE:CD1	2.69	0.51
1:B:840:GLN:HE22	1:B:842:LYS:HE2	1.75	0.51
1:B:987:ILE:HD13	1:B:1294:ILE:HG23	1.92	0.51
1:A:23:TYR:CE1	1:A:656:ASN:HB2	2.45	0.51
1:A:156:LYS:O	1:A:157:ARG:CG	2.55	0.51
1:A:511:HIS:HE2	1:A:531:THR:HG21	1.74	0.51
1:A:633:GLY:O	1:A:634:CYS:HB2	2.10	0.51
1:A:1431:GLY:HA3	1:A:1483:PHE:HE1	1.72	0.51
1:A:1538:GLU:O	1:A:1539:LEU:CG	2.54	0.51
1:A:1653:THR:HG23	1:A:1653:THR:O	2.11	0.51
1:B:23:TYR:CE1	1:B:656:ASN:HB2	2.46	0.51
1:B:226:HIS:CD2	1:B:336:PHE:CE2	2.98	0.51
1:B:739:ARG:HB2	1:B:752:LEU:HD21	1.93	0.51
1:B:829:ILE:CG1	1:B:925:LYS:HG2	2.40	0.51
1:B:968:VAL:CG2	1:B:971:THR:HG21	2.38	0.51
1:B:1027:THR:O	1:B:1027:THR:HG23	2.10	0.51
1:A:235:TYR:HD2	1:A:235:TYR:N	2.09	0.51
1:A:590:LEU:HD22	1:A:799:ILE:HD11	1.93	0.51
1:A:982:LEU:HD11	1:A:1306:GLN:OE1	2.10	0.51
1:A:1113:LEU:C	1:A:1115:ASN:H	2.18	0.51
1:A:1303:LEU:C	1:A:1303:LEU:CD1	2.84	0.51
1:B:234:GLU:C	1:B:235:TYR:CD2	2.89	0.51
1:B:653:PHE:CE2	1:B:660:ASP:HA	2.45	0.51
1:B:719:SER:O	1:B:721:GLY:N	2.43	0.51
1:B:1188:LEU:HD21	1:B:1212:LEU:HA	1.93	0.51
1:B:1315:VAL:HG11	1:B:1324:HIS:NE2	2.25	0.51
1:B:1379:LEU:HD21	1:B:1495:VAL:HG11	1.92	0.51
1:A:249:THR:HG23	1:A:298:GLN:HG2	1.93	0.51
1:A:253:ARG:HG3	1:A:253:ARG:O	2.09	0.51
1:A:326:ALA:HA	1:A:341:GLU:HA	1.93	0.51
1:A:696:LYS:NZ	1:A:700:TYR:CD2	2.78	0.51
1:A:1651:ASP:HB3	1:A:1654:CYS:CB	2.41	0.51
1:B:163:PHE:CD1	1:B:163:PHE:N	2.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:249:THR:HG23	1:B:298:GLN:HG2	1.92	0.51
1:B:268:THR:HA	1:B:286:ALA:CB	2.40	0.51
1:B:357:VAL:O	1:B:358:ALA:C	2.53	0.51
1:B:653:PHE:O	1:B:660:ASP:HB2	2.11	0.51
1:B:780:VAL:HG13	1:B:783:ARG:C	2.35	0.51
1:B:1193:TYR:CE1	1:B:1256:LEU:HB3	2.45	0.51
1:A:43:VAL:HG22	1:A:44:TYR:N	2.26	0.51
1:A:243:PHE:CD1	1:A:316:GLU:HG3	2.45	0.51
1:A:1227:PHE:C	1:A:1228:TRP:CE3	2.89	0.51
1:A:1245:ALA:HA	1:A:1285:TYR:CB	2.41	0.51
1:A:1432:ILE:HG22	1:A:1479:ILE:HB	1.92	0.51
1:B:137:PRO:O	1:B:138:ASP:HB2	2.10	0.51
1:B:606:ASP:C	1:B:606:ASP:OD1	2.52	0.51
1:B:786:LEU:N	1:B:786:LEU:CD2	2.68	0.51
1:B:1077:TRP:NE1	1:B:1147:PHE:CE1	2.79	0.51
1:B:1303:LEU:C	1:B:1303:LEU:CD1	2.84	0.51
1:B:1403:VAL:HG22	1:B:1476:ARG:HB3	1.91	0.51
1:B:1467:ILE:O	1:B:1468:PRO:O	2.28	0.51
1:A:453:ARG:HD3	1:A:455:ILE:HD11	1.93	0.51
1:A:505:SER:HB3	1:A:510:ILE:CD1	2.41	0.51
1:A:1096:ASN:ND2	1:A:1096:ASN:C	2.69	0.51
1:A:1563:VAL:CG2	1:A:1619:ILE:HD13	2.41	0.51
1:A:1624:ALA:HB1	1:A:1635:TYR:HB3	1.92	0.51
1:A:1673:LEU:HD12	1:A:1674:ASN:H	1.75	0.51
1:B:423:ASN:N	1:B:423:ASN:ND2	2.58	0.51
1:B:721:GLY:O	1:B:723:ARG:N	2.44	0.51
1:B:1082:ALA:O	1:B:1086:LEU:HD23	2.11	0.51
1:B:1408:TYR:O	1:B:1410:PRO:HD3	2.10	0.51
1:A:196:TYR:CZ	1:A:221:GLU:HB2	2.46	0.51
1:A:220:LYS:HG2	1:A:763:PRO:HB3	1.93	0.51
1:A:339:GLU:HB2	1:A:766:ARG:HH21	1.76	0.51
1:A:606:ASP:C	1:A:606:ASP:OD1	2.53	0.51
1:A:1674:ASN:O	1:A:1675:GLY:C	2.54	0.51
2:X:41:HIS:CD2	2:X:205:ASP:HB2	2.46	0.51
2:X:170:ARG:NH2	2:X:201:ILE:HG22	2.26	0.51
1:B:450:GLU:HB3	1:B:452:TYR:CE2	2.46	0.51
1:B:543:TYR:HB3	1:B:556:SER:CB	2.38	0.51
1:B:599:TRP:CZ2	1:B:779:LEU:HD13	2.45	0.51
1:B:635:GLY:C	1:B:673:LEU:HA	2.36	0.51
1:B:717:ARG:HD3	1:B:1449:LEU:HA	1.93	0.51
1:B:859:MET:HB2	1:B:912:PHE:HE1	1.68	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1135:VAL:HG12	1:B:1136:GLU:N	2.26	0.51
1:A:362:PHE:CE1	1:A:638:GLY:O	2.64	0.50
1:A:496:ILE:HD13	1:A:517:LYS:NZ	2.26	0.50
1:A:1674:ASN:CG	1:B:258:LYS:HZ1	2.19	0.50
1:B:284:GLN:CD	1:B:310:LEU:HD22	2.36	0.50
1:B:288:GLN:NE2	1:B:680:GLN:OE1	2.44	0.50
1:B:504:LEU:CD1	1:B:509:ILE:HG12	2.41	0.50
1:B:1190:ILE:HG12	1:B:1253:TYR:CE2	2.46	0.50
1:B:1231:ASN:ND2	1:B:1232:LEU:N	2.60	0.50
1:B:1286:SER:OG	1:B:1287:THR:N	2.27	0.50
1:A:50:PHE:HB2	1:A:109:LYS:HG3	1.92	0.50
1:A:223:VAL:HB	1:A:766:ARG:HD3	1.93	0.50
1:A:269:PHE:CE2	1:A:325:ILE:HG23	2.46	0.50
1:A:743:SER:OG	1:A:752:LEU:HD13	2.11	0.50
1:A:1146:ALA:CB	1:A:1190:ILE:HG22	2.41	0.50
1:B:56:ILE:HG13	1:B:66:TYR:CD2	2.44	0.50
1:B:113:LYS:HD3	1:B:656:ASN:OD1	2.11	0.50
1:B:243:PHE:CE1	1:B:316:GLU:CG	2.93	0.50
1:B:412:ARG:HG2	1:B:413:VAL:N	2.26	0.50
1:B:486:VAL:CG2	1:B:526:ILE:HG13	2.41	0.50
1:B:1054:LEU:O	1:B:1056:ILE:N	2.44	0.50
1:B:1230:ASP:OD2	1:B:1246:ARG:HD2	2.10	0.50
1:B:1480:PHE:O	1:B:1482:LEU:N	2.44	0.50
2:Y:70:SER:CB	2:Y:91:LYS:HE3	2.41	0.50
2:Y:166:ASP:OD2	2:Y:201:ILE:HG21	2.11	0.50
1:A:59:TYR:CB	1:A:60:PRO:CD	2.80	0.50
1:A:136:THR:O	1:A:137:PRO:C	2.54	0.50
1:A:977:LEU:HD13	1:A:1346:LEU:HD21	1.93	0.50
1:B:50:PHE:HB2	1:B:109:LYS:HG3	1.92	0.50
1:B:127:PHE:HB2	1:B:146:TYR:O	2.11	0.50
1:B:695:VAL:HG22	1:B:724:CYS:HB3	1.94	0.50
1:B:825:LEU:HG	1:B:826:GLU:N	2.26	0.50
1:B:1050:LYS:O	1:B:1051:GLU:C	2.53	0.50
1:B:1228:TRP:N	1:B:1251:THR:HG22	2.24	0.50
1:A:194:PRO:O	1:A:1070:LYS:NZ	2.45	0.50
1:A:288:GLN:NE2	1:A:680:GLN:OE1	2.44	0.50
1:A:488:PRO:O	1:A:489:LYS:C	2.54	0.50
1:A:825:LEU:HD12	1:A:844:THR:O	2.12	0.50
1:A:1067:SER:OG	1:A:1072:GLY:O	2.29	0.50
1:A:1135:VAL:HG12	1:A:1136:GLU:N	2.25	0.50
1:B:696:LYS:NZ	1:B:700:TYR:HD2	2.08	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1096:ASN:ND2	1:B:1096:ASN:C	2.69	0.50
1:B:1370:THR:O	1:B:1371:SER:C	2.54	0.50
1:B:1464:LEU:HD22	1:B:1466:SER:O	2.12	0.50
1:B:1467:ILE:O	1:B:1467:ILE:HG22	2.11	0.50
1:B:1500:ARG:C	1:B:1502:ASP:H	2.20	0.50
1:A:39:ILE:HG13	1:A:85:LEU:HD23	1.94	0.50
1:A:53:THR:HA	1:A:69:GLY:O	2.12	0.50
1:A:330:ILE:HG22	1:A:337:SER:HB2	1.93	0.50
1:A:363:LEU:O	1:A:456:ALA:HA	2.12	0.50
1:A:442:LEU:CD2	1:A:443:PRO:HD3	2.41	0.50
1:A:489:LYS:O	1:A:491:PRO:CD	2.59	0.50
1:A:717:ARG:HD3	1:A:1449:LEU:HA	1.94	0.50
1:A:829:ILE:HG13	1:A:925:LYS:HG2	1.93	0.50
1:B:38:ASN:C	1:B:39:ILE:HD13	2.37	0.50
1:B:460:LEU:C	1:B:462:GLN:H	2.20	0.50
1:B:717:ARG:CD	1:B:1449:LEU:HA	2.42	0.50
1:B:936:ARG:CZ	1:B:1002:HIS:HE1	2.24	0.50
1:B:982:LEU:HD23	1:B:1309:LEU:HD11	1.92	0.50
1:B:982:LEU:HD11	1:B:1306:GLN:OE1	2.12	0.50
2:Y:45:ASP:HB3	2:Y:49:TYR:CE2	2.47	0.50
1:A:331:GLU:OE1	1:A:336:PHE:HD1	1.95	0.50
1:A:696:LYS:HE3	1:A:700:TYR:CD2	2.46	0.50
1:A:1180:LEU:HD11	1:A:1208:ILE:CA	2.42	0.50
1:A:1565:ILE:HD12	1:A:1565:ILE:N	2.26	0.50
1:B:223:VAL:HB	1:B:766:ARG:HD3	1.93	0.50
1:B:491:PRO:HG3	1:B:544:TYR:OH	2.11	0.50
1:B:505:SER:HB3	1:B:510:ILE:CD1	2.41	0.50
1:B:554:LEU:HB3	1:B:642:ASN:OD1	2.11	0.50
1:B:1245:ALA:HA	1:B:1285:TYR:CB	2.41	0.50
1:B:1280:TYR:HD1	1:B:1362:THR:CG2	2.25	0.50
1:B:1421:HIS:C	1:B:1421:HIS:CD2	2.88	0.50
1:B:1432:ILE:HG22	1:B:1479:ILE:HB	1.93	0.50
2:Y:60:VAL:HB	2:Y:75:PHE:CZ	2.46	0.50
1:A:113:LYS:HG3	1:A:114:SER:H	1.77	0.50
1:A:205:TYR:HD1	1:A:211:THR:OG1	1.94	0.50
1:A:272:ARG:O	1:A:321:LYS:HB2	2.11	0.50
1:A:323:LEU:HB2	1:A:347:TYR:CE2	2.46	0.50
1:A:425:PRO:O	1:A:426:SER:C	2.54	0.50
1:A:640:LEU:HB3	1:A:644:ASN:OD1	2.11	0.50
1:A:696:LYS:NZ	1:A:700:TYR:HD2	2.10	0.50
2:X:45:ASP:HB3	2:X:49:TYR:CE2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:73:LEU:H	1:B:73:LEU:CD2	2.20	0.50
1:B:981:GLY:HA3	1:B:1309:LEU:HD11	1.94	0.50
1:B:1201:THR:O	1:B:1202:HIS:C	2.55	0.50
2:Y:50:TYR:CE2	2:Y:170:ARG:HD2	2.47	0.50
2:Y:170:ARG:NH2	2:Y:201:ILE:HG22	2.27	0.50
1:A:86:THR:HG23	1:A:86:THR:O	2.12	0.50
1:A:271:ILE:HD11	1:A:283:MET:SD	2.52	0.50
1:A:628:GLU:HG3	1:A:628:GLU:O	2.11	0.50
1:A:739:ARG:HB2	1:A:752:LEU:HD21	1.93	0.50
1:A:860:SER:HB3	1:A:911:ASN:HB2	1.93	0.50
1:A:1049:LEU:HD21	1:A:1089:VAL:HG13	1.93	0.50
1:B:220:LYS:HG2	1:B:763:PRO:HB3	1.94	0.50
1:B:541:LEU:CD1	1:B:645:VAL:HG12	2.40	0.50
1:B:707:ASN:OD1	1:B:707:ASN:N	2.45	0.50
1:B:1442:LEU:HD22	1:B:1449:LEU:HD23	1.94	0.50
2:Y:41:HIS:CD2	2:Y:205:ASP:HB2	2.46	0.50
2:Y:170:ARG:HH21	2:Y:201:ILE:HG22	1.76	0.50
1:A:707:ASN:OD1	1:A:707:ASN:N	2.45	0.50
1:A:835:ARG:HD3	1:A:903:LEU:O	2.12	0.50
1:A:1050:LYS:O	1:A:1051:GLU:C	2.53	0.50
1:A:1190:ILE:HG12	1:A:1253:TYR:CE2	2.47	0.50
1:B:765:ILE:O	1:B:765:ILE:CG2	2.58	0.50
1:B:1244:THR:HG22	1:B:1246:ARG:H	1.76	0.50
1:A:56:ILE:HG13	1:A:66:TYR:CD2	2.44	0.49
1:A:528:ILE:HD12	1:A:528:ILE:N	2.26	0.49
1:A:886:GLN:CG	1:A:894:HIS:HE1	2.21	0.49
1:A:1213:LYS:HG3	1:A:1266:TYR:CZ	2.47	0.49
2:X:57:TYR:HD2	2:X:58:SER:N	2.02	0.49
2:X:166:ASP:OD2	2:X:201:ILE:HG21	2.11	0.49
1:B:56:ILE:CD1	1:B:66:TYR:HB2	2.42	0.49
1:B:330:ILE:HG22	1:B:337:SER:HB2	1.94	0.49
1:B:835:ARG:HD3	1:B:903:LEU:O	2.12	0.49
1:B:1180:LEU:HD11	1:B:1208:ILE:CA	2.42	0.49
1:A:82:SER:O	2:X:137:PHE:CE2	2.65	0.49
1:A:498:HIS:HB3	1:A:514:THR:HG23	1.94	0.49
1:A:530:VAL:HA	1:A:534:MET:SD	2.53	0.49
1:A:719:SER:O	1:A:721:GLY:N	2.44	0.49
1:A:915:GLU:OE2	1:A:920:LYS:HE3	2.13	0.49
1:A:1511:THR:HG23	1:A:1511:THR:O	2.10	0.49
2:X:50:TYR:CE2	2:X:170:ARG:HD2	2.47	0.49
2:X:86:LEU:O	2:X:91:LYS:HD2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:134:THR:HG23	2:X:153:PHE:HB3	1.94	0.49
1:B:235:TYR:CD2	1:B:235:TYR:N	2.81	0.49
1:B:511:HIS:ND1	2:Y:149:SER:HB3	2.26	0.49
1:B:802:ILE:HG13	1:B:803:GLY:N	2.25	0.49
1:B:1120:GLU:OE2	1:B:1121:ASN:N	2.42	0.49
1:B:1307:LEU:O	1:B:1308:ARG:C	2.54	0.49
1:B:1488:LEU:HD21	1:B:1511:THR:HG22	1.93	0.49
1:B:1515:LYS:O	1:B:1515:LYS:HG3	2.12	0.49
2:Y:86:LEU:CG	2:Y:91:LYS:HG3	2.42	0.49
1:A:237:PHE:CE1	1:A:378:SER:O	2.65	0.49
1:A:284:GLN:CD	1:A:310:LEU:HD22	2.37	0.49
1:A:667:GLU:C	1:A:669:CYS:H	2.20	0.49
1:A:780:VAL:HG22	1:A:784:LYS:HB3	1.93	0.49
1:A:889:GLU:HG2	1:A:892:SER:HB2	1.94	0.49
1:A:967:LEU:HD13	1:A:1365:VAL:HG22	1.94	0.49
1:A:1079:THR:HG22	1:A:1107:LEU:HD11	1.94	0.49
1:A:1096:ASN:HD22	1:A:1096:ASN:C	2.19	0.49
1:A:1442:LEU:HD22	1:A:1449:LEU:HD23	1.94	0.49
1:A:1666:GLU:O	1:A:1667:PHE:C	2.55	0.49
1:B:531:THR:HG22	1:B:534:MET:CG	2.42	0.49
1:B:665:ASN:CG	1:B:666:ASP:H	2.20	0.49
1:B:838:GLN:HA	1:B:901:LEU:HB2	1.95	0.49
1:B:1255:LEU:HD12	1:B:1267:VAL:HG22	1.93	0.49
1:A:1536:GLN:HG3	1:A:1644:TRP:CZ2	2.47	0.49
1:A:1542:THR:O	1:A:1543:ILE:HB	2.12	0.49
1:A:1577:TYR:CE1	1:A:1602:LYS:HD2	2.48	0.49
1:A:1624:ALA:CB	1:A:1635:TYR:HB3	2.42	0.49
2:X:170:ARG:HH21	2:X:201:ILE:HG22	1.76	0.49
1:B:144:ARG:NH2	1:B:602:LEU:O	2.45	0.49
1:B:147:SER:O	1:B:148:LEU:HD12	2.13	0.49
1:B:153:LYS:O	1:B:154:PRO:C	2.56	0.49
1:B:498:HIS:HB3	1:B:514:THR:HG23	1.94	0.49
1:B:825:LEU:HD12	1:B:844:THR:O	2.12	0.49
1:B:829:ILE:HG13	1:B:925:LYS:HG2	1.94	0.49
1:B:1230:ASP:CG	1:B:1246:ARG:HD2	2.38	0.49
2:Y:86:LEU:O	2:Y:91:LYS:HD2	2.12	0.49
2:Y:134:THR:HG23	2:Y:153:PHE:HB3	1.95	0.49
1:A:59:TYR:CD1	1:A:103:TYR:CE1	2.84	0.49
1:A:109:LYS:CD	1:A:110:HIS:N	2.76	0.49
1:A:354:LEU:HD11	1:A:437:THR:HG23	1.94	0.49
1:A:494:ASP:HA	1:A:496:ILE:CD1	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:639:GLY:N	1:A:645:VAL:HG22	2.23	0.49
1:A:758:LEU:C	1:A:760:VAL:N	2.71	0.49
1:A:1315:VAL:HG11	1:A:1324:HIS:NE2	2.27	0.49
2:X:146:LEU:C	2:X:146:LEU:CD2	2.86	0.49
1:B:156:LYS:O	1:B:157:ARG:CG	2.55	0.49
1:B:362:PHE:CE1	1:B:638:GLY:O	2.65	0.49
1:B:706:ASN:HB3	1:B:714:ARG:HD2	1.95	0.49
1:B:708:ASP:OD2	1:B:1401:ARG:NH2	2.45	0.49
1:B:860:SER:HB3	1:B:911:ASN:HB2	1.94	0.49
1:B:1195:LEU:C	1:B:1197:LEU:N	2.70	0.49
1:B:1328:MET:HE2	1:B:1333:PHE:HA	1.94	0.49
1:B:1378:TYR:CE2	1:B:1409:LYS:HG2	2.48	0.49
2:Y:150:ILE:C	2:Y:150:ILE:CD1	2.82	0.49
1:A:27:ALA:CB	1:A:39:ILE:HD12	2.42	0.49
1:A:390:LEU:HB3	1:A:420:PHE:CE1	2.48	0.49
1:A:625:GLN:O	1:A:629:LYS:HE2	2.13	0.49
1:A:977:LEU:HD13	1:A:1346:LEU:CD2	2.43	0.49
1:A:1016:VAL:HG12	1:A:1017:PRO:HD3	1.95	0.49
1:A:1378:TYR:O	1:A:1406:ALA:HA	2.13	0.49
1:A:1379:LEU:HD21	1:A:1495:VAL:HG11	1.95	0.49
1:A:1627:ILE:HD13	1:A:1627:ILE:H	1.78	0.49
1:B:73:LEU:HD23	1:B:73:LEU:N	2.24	0.49
1:B:216:TYR:CD2	1:B:216:TYR:N	2.80	0.49
1:B:494:ASP:HA	1:B:496:ILE:CD1	2.42	0.49
1:B:571:LEU:C	1:B:571:LEU:CD1	2.85	0.49
1:B:1412:ARG:O	1:B:1413:GLU:HB2	2.13	0.49
1:A:38:ASN:C	1:A:39:ILE:HD13	2.37	0.49
1:A:385:GLY:H	1:A:411:THR:HG23	1.78	0.49
1:A:653:PHE:O	1:A:660:ASP:HB2	2.12	0.49
1:A:665:ASN:CG	1:A:666:ASP:H	2.20	0.49
1:A:814:THR:O	1:A:815:VAL:HG23	2.12	0.49
1:A:838:GLN:O	1:A:1486:GLY:N	2.45	0.49
1:A:886:GLN:CD	1:A:894:HIS:HE1	2.20	0.49
1:A:942:VAL:HG21	1:A:957:LYS:CB	2.42	0.49
1:A:1230:ASP:O	1:A:1231:ASN:O	2.31	0.49
1:A:1231:ASN:ND2	1:A:1232:LEU:N	2.60	0.49
1:A:1268:ASN:HB2	1:A:1269:PRO:HD3	1.93	0.49
1:A:1547:THR:O	1:A:1551:THR:HG23	2.12	0.49
1:A:1578:LYS:HE3	1:A:1597:GLU:OE2	2.13	0.49
2:X:64:VAL:HG23	2:X:71:ASN:OD1	2.13	0.49
1:B:109:LYS:CD	1:B:110:HIS:N	2.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:743:SER:OG	1:B:752:LEU:HD13	2.11	0.49
1:B:1054:LEU:O	1:B:1055:SER:C	2.54	0.49
1:A:55:SER:HB3	1:A:68:SER:CB	2.33	0.49
1:A:153:LYS:HE2	2:X:133:ASN:OD1	2.12	0.49
1:A:222:TYR:CD2	1:A:223:VAL:N	2.81	0.49
1:A:263:ALA:HB3	1:A:292:LEU:CB	2.39	0.49
1:A:639:GLY:HA3	1:A:645:VAL:CA	2.42	0.49
1:A:1244:THR:HB	1:A:1247:MET:HE3	1.95	0.49
1:A:1540:ASP:HB2	1:A:1660:PHE:CD1	2.48	0.49
1:A:1648:TRP:O	1:A:1650:ARG:N	2.45	0.49
2:X:211:ARG:C	2:X:213:GLY:N	2.70	0.49
1:B:368:PRO:O	1:B:370:PRO:HD3	2.13	0.49
1:B:758:LEU:C	1:B:760:VAL:N	2.71	0.49
1:B:780:VAL:HG22	1:B:784:LYS:HB3	1.93	0.49
1:B:820:PHE:CE2	1:B:821:LYS:O	2.65	0.49
1:B:1110:ASN:HB2	1:B:1111:TYR:HD2	1.73	0.49
2:Y:169:ILE:CG2	2:Y:189:ILE:HD13	2.38	0.49
1:A:160:VAL:HG23	1:A:175:GLU:CB	2.33	0.49
1:A:198:MET:HE2	1:A:198:MET:CA	2.34	0.49
1:A:307:VAL:O	1:A:308:LYS:O	2.31	0.49
1:A:541:LEU:HB2	1:A:558:SER:HB3	1.95	0.49
1:A:595:GLY:O	1:A:596:MET:HG2	2.13	0.49
1:A:679:LEU:HD22	1:A:738:LEU:HD11	1.95	0.49
1:A:695:VAL:HG22	1:A:724:CYS:HB3	1.94	0.49
1:A:1143:TYR:HD1	1:A:1186:PHE:HE2	1.61	0.49
1:A:1193:TYR:CE1	1:A:1256:LEU:HB3	2.48	0.49
2:X:86:LEU:CG	2:X:91:LYS:HG3	2.42	0.49
1:B:57:LYS:HE2	1:B:65:SER:HB2	1.95	0.49
1:B:243:PHE:CD1	1:B:316:GLU:HG3	2.47	0.49
1:B:470:THR:HG22	1:B:471:ASP:H	1.75	0.49
1:B:494:ASP:HA	1:B:496:ILE:HD11	1.95	0.49
1:B:571:LEU:HD11	1:B:573:VAL:HG13	1.95	0.49
1:B:915:GLU:OE2	1:B:920:LYS:HE3	2.13	0.49
1:B:942:VAL:HG21	1:B:957:LYS:CB	2.43	0.49
1:A:57:LYS:HE2	1:A:65:SER:HB2	1.94	0.49
1:A:248:ILE:CD1	1:A:325:ILE:HD13	2.43	0.49
1:A:717:ARG:CD	1:A:1449:LEU:HA	2.43	0.49
1:A:855:PHE:HA	1:A:915:GLU:O	2.13	0.49
1:A:1245:ALA:CA	1:A:1285:TYR:HB3	2.42	0.49
1:A:1246:ARG:O	1:A:1250:THR:HG23	2.13	0.49
1:A:1323:LEU:CG	1:A:1324:HIS:H	2.24	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1421:HIS:C	1:A:1421:HIS:CD2	2.91	0.49
1:A:1502:ASP:C	1:A:1503:LYS:HD2	2.38	0.49
1:A:1651:ASP:O	1:A:1653:THR:N	2.46	0.49
1:A:1653:THR:O	1:A:1653:THR:CG2	2.61	0.49
1:B:354:LEU:H	1:B:354:LEU:CD2	2.20	0.49
1:B:922:ILE:HD12	3:D:1:NAG:H82	1.94	0.49
1:B:1204:GLN:OE1	1:B:1204:GLN:HA	2.13	0.49
1:B:1220:GLY:O	1:B:1222:PRO:O	2.29	0.49
2:Y:224:ILE:HG22	2:Y:225:SER:N	2.28	0.49
1:A:144:ARG:NH2	1:A:602:LEU:O	2.46	0.48
1:A:442:LEU:HB3	1:A:447:GLN:NE2	2.28	0.48
1:A:484:ILE:C	1:A:485:ILE:HD13	2.38	0.48
1:A:838:GLN:HA	1:A:901:LEU:HB2	1.93	0.48
1:A:894:HIS:CD2	1:A:894:HIS:C	2.91	0.48
1:A:1307:LEU:O	1:A:1308:ARG:C	2.56	0.48
1:A:1480:PHE:O	1:A:1482:LEU:N	2.46	0.48
1:A:1520:CYS:CB	1:A:1526:LYS:HZ2	2.25	0.48
1:A:1559:TYR:HB3	1:A:1588:GLY:HA2	1.94	0.48
1:B:53:THR:HA	1:B:69:GLY:O	2.13	0.48
1:B:640:LEU:HD12	1:B:640:LEU:O	2.13	0.48
1:B:1037:ASP:OD1	1:B:1037:ASP:C	2.55	0.48
1:B:1104:LEU:HD13	1:B:1164:ILE:CD1	2.42	0.48
1:B:1433:SER:HB2	1:B:1480:PHE:HD1	1.78	0.48
1:A:268:THR:HA	1:A:286:ALA:CB	2.41	0.48
1:A:364:LYS:H	1:A:364:LYS:CD	2.26	0.48
1:A:486:VAL:CG2	1:A:526:ILE:HG13	2.42	0.48
1:A:686:ILE:C	1:A:688:ALA:H	2.21	0.48
1:A:1110:ASN:HB2	1:A:1111:TYR:HD2	1.74	0.48
1:A:1201:THR:O	1:A:1202:HIS:C	2.56	0.48
1:A:1647:TYR:C	1:A:1649:PRO:HD3	2.38	0.48
1:B:158:GLU:HG2	1:B:177:ILE:HA	1.96	0.48
1:B:889:GLU:HG2	1:B:892:SER:HB2	1.95	0.48
1:B:1143:TYR:HD1	1:B:1186:PHE:HE2	1.60	0.48
1:B:1323:LEU:HD11	1:B:1324:HIS:HD2	1.78	0.48
1:A:227:PHE:HB3	1:A:254:TYR:HD2	1.78	0.48
1:A:250:ILE:HD12	1:A:327:VAL:HG11	1.95	0.48
1:A:940:SER:HB2	1:A:959:PHE:CD1	2.47	0.48
1:A:1049:LEU:HD23	1:A:1093:VAL:CG2	2.43	0.48
1:A:1193:TYR:O	1:A:1196:SER:HB3	2.13	0.48
1:B:267:ILE:HG12	1:B:327:VAL:HG13	1.94	0.48
1:B:354:LEU:HD11	1:B:437:THR:HG23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:359:THR:CG2	1:B:372:LYS:HG3	2.44	0.48
2:Y:183:THR:HB	2:Y:230:GLN:HB3	1.95	0.48
1:A:424:LEU:HA	1:A:425:PRO:HD3	1.82	0.48
1:A:835:ARG:CG	1:A:835:ARG:NH1	2.66	0.48
1:A:1279:ARG:HD3	1:A:1284:PHE:CD2	2.48	0.48
1:A:1378:TYR:CE2	1:A:1409:LYS:HG2	2.47	0.48
1:A:1433:SER:HB2	1:A:1480:PHE:CE1	2.48	0.48
1:A:1518:LYS:NZ	1:A:1518:LYS:HB3	2.26	0.48
1:A:1594:LYS:HE3	1:B:1399:TYR:HE1	1.77	0.48
1:B:227:PHE:HB3	1:B:254:TYR:HD2	1.79	0.48
1:B:390:LEU:HB3	1:B:420:PHE:CE1	2.47	0.48
1:B:453:ARG:HD3	1:B:455:ILE:HD11	1.95	0.48
1:B:906:GLY:O	1:B:908:HIS:NE2	2.46	0.48
1:B:1096:ASN:C	1:B:1096:ASN:HD22	2.21	0.48
2:Y:211:ARG:C	2:Y:213:GLY:N	2.71	0.48
1:A:442:LEU:HD22	1:A:443:PRO:CD	2.43	0.48
1:A:501:TYR:OH	2:X:147:ASP:HA	2.14	0.48
1:A:710:THR:N	1:A:713:GLN:OE1	2.40	0.48
1:A:1030:HIS:CE1	1:A:1306:GLN:HE21	2.29	0.48
1:A:1310:SER:O	1:A:1310:SER:OG	2.26	0.48
1:A:1412:ARG:O	1:A:1413:GLU:HB2	2.14	0.48
1:A:1521:GLU:C	1:A:1523:ALA:H	2.22	0.48
1:A:1564:SER:HB2	1:A:1616:GLN:CG	2.36	0.48
1:B:1530:ALA:O	1:B:1531:ASP:OD2	2.31	0.48
2:Y:64:VAL:HG23	2:Y:71:ASN:OD1	2.12	0.48
2:Y:146:LEU:C	2:Y:146:LEU:CD2	2.86	0.48
1:A:216:TYR:CD2	1:A:216:TYR:N	2.82	0.48
1:A:531:THR:HG23	1:A:533:ASN:H	1.78	0.48
1:A:708:ASP:OD2	1:A:1401:ARG:NH2	2.45	0.48
1:A:1003:LEU:HA	1:A:1004:PRO:HD2	1.39	0.48
1:A:1500:ARG:C	1:A:1502:ASP:H	2.21	0.48
2:X:67:TYR:HB3	2:X:72:VAL:CG2	2.44	0.48
2:X:224:ILE:HG22	2:X:225:SER:N	2.28	0.48
1:B:49:ALA:O	1:B:50:PHE:HB3	2.13	0.48
1:B:133:PRO:O	1:B:134:VAL:HG23	2.14	0.48
1:B:307:VAL:O	1:B:308:LYS:O	2.31	0.48
1:B:386:VAL:O	1:B:410:VAL:HG13	2.14	0.48
1:B:942:VAL:HG12	1:B:943:THR:N	2.29	0.48
1:B:1115:ASN:HD22	1:B:1115:ASN:C	2.21	0.48
1:B:1300:TYR:C	1:B:1300:TYR:CD2	2.91	0.48
1:B:1433:SER:HB2	1:B:1480:PHE:CE1	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:88:GLN:HB3	1:A:88:GLN:HE21	1.52	0.48
1:A:335:GLY:O	1:A:336:PHE:O	2.32	0.48
1:A:465:LEU:HD21	1:A:542:VAL:HG12	1.95	0.48
1:A:647:HIS:CE1	1:A:667:GLU:HG3	2.49	0.48
1:A:786:LEU:HD23	1:A:786:LEU:H	1.76	0.48
1:A:839:ILE:HD11	1:A:1483:PHE:CZ	2.48	0.48
1:A:886:GLN:CD	1:A:894:HIS:CE1	2.91	0.48
1:A:1445:GLY:O	1:A:1448:GLN:HB3	2.14	0.48
2:X:49:TYR:HB2	2:X:206:LYS:NZ	2.29	0.48
1:B:27:ALA:HB2	1:B:39:ILE:HD12	1.96	0.48
1:B:511:HIS:ND1	2:Y:149:SER:CB	2.77	0.48
1:B:667:GLU:C	1:B:669:CYS:H	2.21	0.48
1:B:694:VAL:CG1	1:B:720:LEU:HD13	2.44	0.48
1:B:1189:ALA:HB1	1:B:1253:TYR:HB2	1.96	0.48
1:B:1273:TRP:O	1:B:1277:GLU:HB2	2.13	0.48
1:B:1484:GLU:H	1:B:1484:GLU:CD	2.22	0.48
1:A:352:TYR:HA	1:A:376:LYS:O	2.13	0.48
1:A:381:GLN:HE21	1:A:381:GLN:N	2.10	0.48
1:A:394:THR:HG22	1:A:402:SER:OG	2.14	0.48
1:A:412:ARG:HG2	1:A:413:VAL:N	2.27	0.48
1:A:429:THR:OG1	1:A:430:VAL:N	2.35	0.48
1:A:922:ILE:CD1	3:C:1:NAG:H82	2.25	0.48
1:A:1144:LEU:O	1:A:1148:THR:CG2	2.62	0.48
1:A:1534:GLN:O	1:A:1534:GLN:HG2	2.13	0.48
1:B:92:LEU:H	1:B:93:PRO:HD3	1.79	0.48
1:B:193:ASN:OD1	1:B:1070:LYS:NZ	2.46	0.48
1:B:425:PRO:O	1:B:426:SER:C	2.56	0.48
1:B:855:PHE:HA	1:B:915:GLU:O	2.12	0.48
1:B:903:LEU:HD22	1:B:903:LEU:N	2.29	0.48
1:B:942:VAL:CG2	1:B:957:LYS:CB	2.92	0.48
1:B:1144:LEU:O	1:B:1148:THR:CG2	2.61	0.48
2:Y:79:ASP:HB3	2:Y:80:GLN:HE22	1.79	0.48
1:A:195:ARG:CD	1:A:1058:SER:HA	2.43	0.48
1:A:367:ILE:HD13	1:A:466:TYR:CD2	2.49	0.48
1:A:466:TYR:CD1	1:A:467:ILE:N	2.82	0.48
1:A:590:LEU:HD12	1:A:591:ASN:H	1.78	0.48
1:A:702:GLY:CA	1:A:728:PHE:CD1	2.97	0.48
1:A:706:ASN:HB3	1:A:714:ARG:HD2	1.95	0.48
1:A:1169:ILE:HG22	1:A:1170:LYS:N	2.28	0.48
1:A:1180:LEU:HG	1:A:1208:ILE:HG23	1.94	0.48
1:A:1188:LEU:HD21	1:A:1212:LEU:HA	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1591:VAL:O	1:A:1592:ALA:CB	2.62	0.48
1:A:1654:CYS:C	1:A:1656:SER:N	2.71	0.48
1:B:153:LYS:CB	1:B:154:PRO:HD2	2.43	0.48
1:B:442:LEU:HA	1:B:442:LEU:HD23	1.44	0.48
1:B:647:HIS:CE1	1:B:667:GLU:HG3	2.48	0.48
1:B:667:GLU:O	1:B:669:CYS:N	2.44	0.48
1:B:683:ILE:CD1	1:B:735:ALA:HB2	2.44	0.48
1:B:758:LEU:O	1:B:760:VAL:N	2.46	0.48
1:B:839:ILE:HG23	1:B:900:VAL:HG23	1.92	0.48
2:Y:82:HIS:ND1	2:Y:116:LEU:HG	2.28	0.48
1:A:367:ILE:HG23	1:A:368:PRO:CD	2.44	0.48
1:A:466:TYR:C	1:A:466:TYR:HD1	2.21	0.48
1:A:607:SER:HB3	1:A:796:THR:O	2.14	0.48
1:A:1066:TYR:HD1	1:A:1066:TYR:H	1.62	0.48
1:A:1186:PHE:CD1	1:A:1250:THR:HG22	2.49	0.48
1:A:1209:VAL:O	1:A:1213:LYS:HB2	2.13	0.48
2:X:162:LEU:HD23	2:X:211:ARG:HG2	1.95	0.48
1:B:39:ILE:HG13	1:B:85:LEU:HD23	1.96	0.48
1:B:149:ASN:C	1:B:151:ASP:N	2.72	0.48
1:B:193:ASN:OD1	1:B:193:ASN:C	2.57	0.48
1:B:254:TYR:HB3	1:B:256:TYR:CE2	2.49	0.48
1:B:440:PRO:CD	1:B:441:ASP:H	2.26	0.48
1:B:814:THR:O	1:B:815:VAL:HG23	2.13	0.48
1:B:1067:SER:OG	1:B:1074:ALA:HA	2.13	0.48
1:A:307:VAL:O	1:A:308:LYS:C	2.55	0.47
1:A:859:MET:HB3	1:A:898:PHE:CE1	2.48	0.47
1:A:942:VAL:CG2	1:A:957:LYS:CB	2.92	0.47
1:B:466:TYR:CD1	1:B:467:ILE:N	2.82	0.47
1:B:595:GLY:O	1:B:596:MET:HG2	2.13	0.47
1:A:423:ASN:N	1:A:423:ASN:ND2	2.62	0.47
1:A:590:LEU:HD12	1:A:591:ASN:N	2.29	0.47
1:A:855:PHE:HD2	1:A:888:VAL:HG22	1.79	0.47
1:A:1267:VAL:O	1:A:1268:ASN:C	2.58	0.47
2:X:107:GLN:OE1	2:X:110:ILE:HD11	2.13	0.47
2:X:183:THR:HB	2:X:230:GLN:HB3	1.95	0.47
1:B:219:VAL:O	1:B:219:VAL:HG12	2.14	0.47
1:B:235:TYR:HD2	1:B:235:TYR:N	2.12	0.47
1:B:307:VAL:O	1:B:308:LYS:C	2.55	0.47
1:B:590:LEU:HD12	1:B:591:ASN:N	2.29	0.47
1:B:662:SER:O	1:B:663:GLN:C	2.56	0.47
1:B:837:GLU:HG2	1:B:1488:LEU:HA	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:191:ILE:HG13	2:Y:199:VAL:O	2.14	0.47
1:A:234:GLU:HG2	1:A:235:TYR:CD2	2.49	0.47
1:A:572:GLN:HE21	1:A:574:HIS:CE1	2.31	0.47
1:A:659:ALA:C	1:A:661:ASP:H	2.22	0.47
1:A:953:ILE:HD12	1:A:955:ARG:CZ	2.44	0.47
1:A:1115:ASN:HD22	1:A:1115:ASN:C	2.19	0.47
1:A:1524:ALA:O	1:A:1528:VAL:HG23	2.14	0.47
1:A:1569:THR:OG1	1:A:1574:PHE:HB3	2.13	0.47
1:A:1637:TYR:CG	1:A:1638:PRO:HD2	2.49	0.47
1:B:639:GLY:N	1:B:645:VAL:HG22	2.24	0.47
1:B:679:LEU:HD22	1:B:738:LEU:HD11	1.96	0.47
1:B:977:LEU:HD13	1:B:1346:LEU:HD21	1.95	0.47
1:B:1283:GLY:O	1:B:1285:TYR:N	2.47	0.47
1:A:49:ALA:O	1:A:50:PHE:HB3	2.13	0.47
1:A:56:ILE:CD1	1:A:66:TYR:HB2	2.43	0.47
1:A:193:ASN:OD1	1:A:1070:LYS:NZ	2.47	0.47
1:A:683:ILE:CD1	1:A:735:ALA:HB2	2.45	0.47
1:A:1280:TYR:HD1	1:A:1362:THR:CG2	2.28	0.47
1:A:1624:ALA:HB1	1:A:1636:ILE:CA	2.39	0.47
1:A:1670:ASP:HA	1:A:1673:LEU:HD11	1.96	0.47
1:B:102:VAL:HG23	1:B:103:TYR:N	2.30	0.47
1:B:234:GLU:HG2	1:B:235:TYR:CD2	2.49	0.47
1:B:363:LEU:O	1:B:456:ALA:HA	2.15	0.47
1:B:420:PHE:N	1:B:420:PHE:HD2	2.13	0.47
1:B:710:THR:N	1:B:713:GLN:OE1	2.39	0.47
1:B:1096:ASN:HD22	1:B:1099:SER:H	1.51	0.47
1:B:1169:ILE:HG22	1:B:1170:LYS:N	2.28	0.47
2:Y:67:TYR:HB3	2:Y:72:VAL:CG2	2.44	0.47
1:A:494:ASP:HA	1:A:496:ILE:HD11	1.95	0.47
1:A:554:LEU:HB3	1:A:642:ASN:OD1	2.13	0.47
1:A:758:LEU:HD22	1:A:760:VAL:H	1.78	0.47
1:A:1037:ASP:C	1:A:1037:ASP:OD1	2.57	0.47
1:A:1403:VAL:HG22	1:A:1476:ARG:HB3	1.95	0.47
1:B:54:ILE:HG22	1:B:55:SER:H	1.79	0.47
1:B:159:THR:HG22	1:B:160:VAL:N	2.29	0.47
1:B:237:PHE:HE1	1:B:378:SER:O	1.98	0.47
1:B:777:VAL:O	1:B:778:HIS:CD2	2.68	0.47
1:B:953:ILE:HD12	1:B:955:ARG:CZ	2.44	0.47
1:B:1049:LEU:HD21	1:B:1089:VAL:HG13	1.96	0.47
1:B:1180:LEU:HG	1:B:1208:ILE:HG23	1.95	0.47
1:B:1186:PHE:CD1	1:B:1250:THR:HG22	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1196:SER:HB2	1:B:1257:THR:HG23	1.96	0.47
1:B:1381:ILE:HG13	1:B:1404:ALA:HB2	1.96	0.47
1:A:122:ASP:OD2	1:A:211:THR:HG22	2.14	0.47
1:A:316:GLU:O	1:A:317:ASP:C	2.57	0.47
1:A:461:SER:C	1:A:463:SER:N	2.73	0.47
1:A:802:ILE:HG13	1:A:803:GLY:N	2.24	0.47
1:A:1168:LEU:HD23	1:A:1168:LEU:HA	1.59	0.47
1:A:1328:MET:HE2	1:A:1333:PHE:HA	1.97	0.47
1:A:1564:SER:O	1:A:1579:ALA:HB1	2.14	0.47
1:A:1663:ASN:O	1:A:1667:PHE:N	2.45	0.47
1:B:100:SER:O	1:B:101:TYR:CB	2.56	0.47
1:B:101:TYR:HE1	1:B:116:ARG:NE	2.11	0.47
1:B:364:LYS:H	1:B:364:LYS:CD	2.26	0.47
1:B:373:VAL:HG22	1:B:418:ALA:HB3	1.95	0.47
1:B:484:ILE:C	1:B:485:ILE:HD13	2.40	0.47
1:B:488:PRO:O	1:B:489:LYS:C	2.57	0.47
1:B:541:LEU:HB2	1:B:558:SER:HB3	1.97	0.47
1:B:639:GLY:HA3	1:B:645:VAL:CA	2.44	0.47
1:B:663:GLN:OE1	1:B:663:GLN:HA	2.14	0.47
1:B:1244:THR:CG2	1:B:1246:ARG:H	2.28	0.47
1:B:1445:GLY:O	1:B:1448:GLN:HB3	2.14	0.47
2:Y:46:LEU:CD2	2:Y:206:LYS:HE3	2.37	0.47
2:Y:99:GLN:O	2:Y:100:GLY:C	2.58	0.47
1:A:440:PRO:CD	1:A:441:ASP:H	2.26	0.47
1:A:496:ILE:HG23	1:A:544:TYR:HB2	1.96	0.47
1:A:511:HIS:ND1	2:X:149:SER:HB3	2.30	0.47
1:A:543:TYR:CB	1:A:556:SER:HB3	2.40	0.47
1:A:662:SER:O	1:A:663:GLN:C	2.57	0.47
1:A:768:TYR:HE2	1:A:770:PRO:HA	1.80	0.47
1:A:833:VAL:HA	1:A:1430:THR:HG21	1.95	0.47
1:A:886:GLN:HG3	1:A:887:LYS:N	2.27	0.47
1:A:1068:VAL:CG1	1:A:1069:TRP:N	2.69	0.47
1:A:1127:ILE:HD12	1:A:1127:ILE:N	2.19	0.47
1:A:1342:LEU:HD23	1:A:1342:LEU:N	2.30	0.47
1:A:1616:GLN:NE2	1:B:1521:GLU:CD	2.72	0.47
1:A:1623:GLU:O	1:A:1637:TYR:HD2	1.98	0.47
1:A:1675:GLY:C	1:A:1676:CYS:SG	2.95	0.47
2:X:99:GLN:O	2:X:100:GLY:C	2.58	0.47
1:B:394:THR:HG23	1:B:428:VAL:HG23	1.96	0.47
1:B:394:THR:HG22	1:B:402:SER:OG	2.14	0.47
1:B:461:SER:C	1:B:463:SER:N	2.72	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:499:TYR:CE2	1:B:517:LYS:CG	2.97	0.47
1:B:501:TYR:OH	2:Y:147:ASP:HA	2.14	0.47
1:B:859:MET:HB3	1:B:898:PHE:CE1	2.50	0.47
1:B:1245:ALA:CA	1:B:1285:TYR:HB3	2.43	0.47
1:B:1381:ILE:HD13	1:B:1509:TYR:CE1	2.50	0.47
1:B:1484:GLU:OE1	1:B:1484:GLU:N	2.37	0.47
1:B:1494:THR:HB	1:B:1506:THR:HG23	1.97	0.47
2:Y:49:TYR:HB2	2:Y:206:LYS:HZ2	1.80	0.47
2:Y:49:TYR:HB2	2:Y:206:LYS:NZ	2.30	0.47
2:Y:120:GLY:HA3	2:Y:212:MET:O	2.14	0.47
1:A:153:LYS:O	1:A:154:PRO:C	2.57	0.47
1:A:531:THR:HG22	1:A:534:MET:CG	2.45	0.47
1:A:1136:GLU:OE1	1:A:1415:SER:CB	2.63	0.47
1:A:1159:CYS:O	1:A:1160:PRO:C	2.58	0.47
1:A:1195:LEU:C	1:A:1197:LEU:N	2.71	0.47
1:A:1401:ARG:HG2	1:A:1402:ILE:N	2.28	0.47
1:A:1509:TYR:CD2	1:A:1509:TYR:C	2.92	0.47
2:X:79:ASP:HB3	2:X:80:GLN:HE22	1.80	0.47
2:X:120:GLY:HA3	2:X:212:MET:O	2.15	0.47
1:B:42:GLN:CD	1:B:543:TYR:HH	2.23	0.47
1:B:88:GLN:HB3	1:B:88:GLN:HE21	1.53	0.47
1:B:614:ARG:O	1:B:615:GLY:C	2.58	0.47
1:B:855:PHE:CZ	1:B:886:GLN:HB3	2.50	0.47
1:A:32:ARG:HB2	1:A:35:ALA:HB2	1.97	0.47
1:A:288:GLN:O	1:A:289:ASN:O	2.33	0.47
1:A:693:SER:O	1:A:696:LYS:HB3	2.15	0.47
1:A:1008:ALA:N	1:A:1068:VAL:O	2.38	0.47
1:A:1228:TRP:H	1:A:1228:TRP:HE3	1.60	0.47
1:A:1367:LYS:HB3	1:A:1367:LYS:HE2	1.56	0.47
1:A:1420:SER:HB3	1:A:1497:GLU:OE2	2.15	0.47
1:A:1558:ALA:HB3	1:A:1622:LYS:C	2.40	0.47
2:X:104:PHE:CZ	2:X:164:GLU:HG3	2.50	0.47
1:B:331:GLU:OE1	1:B:336:PHE:HD1	1.97	0.47
1:B:367:ILE:HG23	1:B:368:PRO:CD	2.45	0.47
1:B:820:PHE:HE2	1:B:848:TYR:HD2	1.55	0.47
1:B:959:PHE:H	1:B:959:PHE:HD2	1.60	0.47
1:A:442:LEU:HD23	1:A:443:PRO:HD3	1.95	0.47
1:A:496:ILE:HD13	1:A:517:LYS:HZ1	1.79	0.47
1:A:1054:LEU:O	1:A:1055:SER:C	2.58	0.47
1:A:1132:THR:N	1:A:1135:VAL:HB	2.30	0.47
1:A:1230:ASP:CG	1:A:1246:ARG:HD2	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1270:VAL:HG12	1:A:1271:ILE:N	2.30	0.47
1:A:1568:ILE:HD13	1:A:1577:TYR:CD2	2.50	0.47
1:A:1611:LEU:HD12	1:A:1611:LEU:O	2.15	0.47
2:X:61:SER:C	2:X:75:PHE:HZ	2.22	0.47
1:B:153:LYS:O	1:B:155:ALA:N	2.48	0.47
1:B:323:LEU:HB2	1:B:347:TYR:CE2	2.50	0.47
1:B:659:ALA:C	1:B:661:ASP:H	2.23	0.47
1:B:897:THR:C	1:B:898:PHE:CD2	2.93	0.47
2:Y:104:PHE:CZ	2:Y:164:GLU:HG3	2.50	0.47
2:Y:162:LEU:HD23	2:Y:211:ARG:HG2	1.96	0.47
1:A:322:TYR:CD2	1:A:322:TYR:N	2.84	0.46
1:A:1067:SER:OG	1:A:1074:ALA:HA	2.14	0.46
1:A:1486:GLY:O	1:A:1487:PHE:CE2	2.57	0.46
2:X:82:HIS:ND1	2:X:116:LEU:HG	2.30	0.46
1:B:166:PRO:HG2	1:B:195:ARG:O	2.15	0.46
1:B:227:PHE:CZ	1:B:338:GLU:HB2	2.50	0.46
1:B:335:GLY:O	1:B:336:PHE:O	2.33	0.46
1:B:944:LEU:HA	1:B:944:LEU:HD23	1.55	0.46
1:B:1003:LEU:HA	1:B:1004:PRO:HD2	1.41	0.46
1:B:1066:TYR:H	1:B:1066:TYR:HD1	1.64	0.46
1:B:1075:SER:HG	1:B:1078:LEU:H	1.59	0.46
1:B:1216:ALA:C	1:B:1217:LEU:HG	2.39	0.46
1:A:92:LEU:H	1:A:93:PRO:HD3	1.79	0.46
1:A:310:LEU:HD23	1:A:310:LEU:N	2.31	0.46
1:A:504:LEU:HD21	1:A:651:LEU:HG	1.97	0.46
1:A:614:ARG:O	1:A:615:GLY:C	2.57	0.46
1:A:758:LEU:O	1:A:760:VAL:N	2.48	0.46
1:A:825:LEU:HG	1:A:826:GLU:N	2.28	0.46
1:A:959:PHE:H	1:A:959:PHE:HD2	1.63	0.46
1:A:964:PRO:C	1:A:966:ASP:H	2.22	0.46
1:A:1049:LEU:HD23	1:A:1093:VAL:HG23	1.96	0.46
1:A:1562:LYS:NZ	1:A:1648:TRP:CE2	2.83	0.46
1:A:1592:ALA:HB1	1:A:1596:SER:OG	2.16	0.46
1:B:284:GLN:O	1:B:285:THR:C	2.58	0.46
1:B:945:ASP:OD2	1:B:950:TYR:HB2	2.15	0.46
1:B:967:LEU:HD13	1:B:1365:VAL:HG22	1.97	0.46
1:B:982:LEU:CD2	1:B:1309:LEU:HD11	2.46	0.46
1:B:1378:TYR:O	1:B:1406:ALA:HA	2.14	0.46
2:Y:57:TYR:CD2	2:Y:58:SER:N	2.79	0.46
2:Y:192:ASN:ND2	2:Y:223:GLY:O	2.49	0.46
1:A:25:ILE:HD13	1:A:41:ILE:HB	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:158:GLU:HG2	1:A:177:ILE:HA	1.97	0.46
1:A:234:GLU:HG2	1:A:235:TYR:HE2	1.78	0.46
1:A:570:GLN:O	1:A:594:THR:HA	2.15	0.46
1:A:774:LEU:HD23	1:A:774:LEU:HA	1.70	0.46
1:A:1230:ASP:OD2	1:A:1246:ARG:HD2	2.16	0.46
1:B:122:ASP:OD2	1:B:211:THR:HG22	2.15	0.46
1:B:263:ALA:HB3	1:B:292:LEU:CB	2.39	0.46
1:B:269:PHE:CE2	1:B:325:ILE:HG23	2.50	0.46
1:B:570:GLN:O	1:B:594:THR:HA	2.15	0.46
1:B:1323:LEU:CG	1:B:1324:HIS:H	2.26	0.46
1:A:292:LEU:HA	1:A:297:ALA:HB2	1.97	0.46
1:A:420:PHE:N	1:A:420:PHE:HD2	2.13	0.46
1:A:572:GLN:HG3	1:A:574:HIS:NE2	2.30	0.46
1:A:948:GLY:HA2	1:A:952:THR:O	2.15	0.46
1:A:1216:ALA:C	1:A:1217:LEU:HG	2.39	0.46
1:A:1617:TYR:O	1:A:1619:ILE:HD12	2.16	0.46
1:A:1658:GLN:C	1:A:1660:PHE:N	2.73	0.46
1:B:322:TYR:N	1:B:322:TYR:CD2	2.83	0.46
1:B:530:VAL:HA	1:B:534:MET:SD	2.55	0.46
1:B:590:LEU:HD12	1:B:591:ASN:H	1.79	0.46
1:B:839:ILE:HD11	1:B:1483:PHE:CZ	2.50	0.46
1:B:1060:ARG:NH2	1:B:1064:TYR:CE1	2.83	0.46
1:B:1227:PHE:HB2	1:B:1251:THR:HG21	1.97	0.46
1:B:1230:ASP:O	1:B:1231:ASN:O	2.33	0.46
1:B:1488:LEU:C	1:B:1488:LEU:HD13	2.39	0.46
1:A:61:ASP:CG	1:A:61:ASP:O	2.59	0.46
1:A:829:ILE:CG2	1:A:830:PRO:CD	2.94	0.46
1:A:833:VAL:HG23	1:A:927:LEU:HD21	1.98	0.46
1:A:1082:ALA:O	1:A:1086:LEU:HD23	2.15	0.46
1:A:1323:LEU:HD11	1:A:1324:HIS:HD2	1.80	0.46
2:X:57:TYR:CD2	2:X:58:SER:N	2.79	0.46
2:X:192:ASN:ND2	2:X:223:GLY:O	2.48	0.46
1:B:125:PHE:CE1	1:B:152:LEU:HD11	2.51	0.46
1:B:544:TYR:CD2	1:B:546:VAL:HG23	2.50	0.46
1:B:1334:LEU:N	1:B:1334:LEU:CD2	2.65	0.46
2:Y:61:SER:C	2:Y:75:PHE:HZ	2.22	0.46
1:A:506:LYS:HE2	1:A:506:LYS:HB2	1.56	0.46
1:A:531:THR:N	1:A:534:MET:SD	2.80	0.46
1:A:1273:TRP:O	1:A:1277:GLU:HB2	2.16	0.46
1:A:1289:ASP:CG	1:A:1290:THR:N	2.73	0.46
1:A:1673:LEU:HB2	1:B:258:LYS:HD2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:24:VAL:HG11	1:B:543:TYR:OH	2.16	0.46
1:B:86:THR:O	1:B:86:THR:HG23	2.15	0.46
1:B:686:ILE:C	1:B:688:ALA:H	2.22	0.46
1:B:955:ARG:O	1:B:956:ARG:HG3	2.16	0.46
1:B:1104:LEU:O	1:B:1108:VAL:HG12	2.15	0.46
1:B:1108:VAL:HG21	1:B:1167:ALA:HB2	1.98	0.46
1:B:1279:ARG:CG	1:B:1284:PHE:CG	2.98	0.46
1:A:161:LEU:HD11	1:A:185:PHE:CD1	2.51	0.46
1:A:774:LEU:HD11	1:A:788:PHE:CZ	2.51	0.46
1:A:906:GLY:O	1:A:908:HIS:NE2	2.49	0.46
1:A:1221:ASN:ND2	1:A:1222:PRO:HA	2.31	0.46
1:A:1381:ILE:HD13	1:A:1509:TYR:CE1	2.51	0.46
1:A:1559:TYR:C	1:A:1559:TYR:CD2	2.93	0.46
1:A:1595:ASP:OD2	1:B:1514:ILE:HD11	2.16	0.46
1:A:1622:LYS:HE2	1:A:1637:TYR:OH	2.15	0.46
2:X:66:ASN:OD1	2:X:66:ASN:N	2.48	0.46
2:X:191:ILE:HG13	2:X:199:VAL:O	2.16	0.46
1:B:61:ASP:CG	1:B:61:ASP:O	2.58	0.46
1:B:247:GLU:CG	1:B:298:GLN:OE1	2.64	0.46
1:B:288:GLN:O	1:B:289:ASN:O	2.33	0.46
1:B:292:LEU:HA	1:B:297:ALA:HB2	1.98	0.46
1:B:381:GLN:HE21	1:B:381:GLN:N	2.14	0.46
1:B:511:HIS:NE2	1:B:531:THR:HG21	2.30	0.46
1:B:829:ILE:CG2	1:B:830:PRO:CD	2.94	0.46
1:B:1197:LEU:CD2	1:B:1260:ASN:HD21	2.29	0.46
1:B:1268:ASN:HB2	1:B:1269:PRO:HD3	1.97	0.46
1:B:1342:LEU:HD23	1:B:1342:LEU:N	2.31	0.46
1:B:1464:LEU:N	1:B:1464:LEU:CD1	2.79	0.46
1:B:1509:TYR:C	1:B:1509:TYR:CD2	2.92	0.46
1:A:101:TYR:HE1	1:A:116:ARG:NE	2.13	0.46
1:A:252:ALA:HB1	1:A:260:VAL:HG21	1.96	0.46
1:A:377:ASP:O	1:A:380:ASP:N	2.42	0.46
1:A:394:THR:HG23	1:A:428:VAL:HG23	1.97	0.46
1:A:492:TYR:CD2	1:A:492:TYR:C	2.94	0.46
1:A:587:THR:HA	1:A:789:ALA:HA	1.98	0.46
1:A:1146:ALA:O	1:A:1150:ILE:HG13	2.16	0.46
1:A:1147:PHE:C	1:A:1147:PHE:CD2	2.94	0.46
1:A:1244:THR:HG22	1:A:1247:MET:N	2.26	0.46
1:A:1425:ASP:C	1:A:1425:ASP:OD2	2.59	0.46
1:A:1429:PRO:HB3	1:A:1488:LEU:HD22	1.97	0.46
1:B:141:VAL:CG2	1:B:190:ILE:HD11	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:225:PRO:HG3	1:B:766:ARG:O	2.14	0.46
1:B:442:LEU:HD23	1:B:443:PRO:HD3	1.97	0.46
1:B:840:GLN:CG	1:B:899:THR:HG22	2.45	0.46
1:B:855:PHE:HD2	1:B:888:VAL:HG22	1.81	0.46
1:A:225:PRO:HG3	1:A:766:ARG:O	2.16	0.46
1:A:663:GLN:HA	1:A:663:GLN:OE1	2.15	0.46
1:A:694:VAL:CG1	1:A:720:LEU:HD13	2.46	0.46
1:A:777:VAL:O	1:A:778:HIS:CD2	2.69	0.46
1:A:802:ILE:CD1	1:A:809:ILE:HG13	2.46	0.46
1:A:945:ASP:OD2	1:A:950:TYR:HB2	2.16	0.46
1:A:1629:TYR:CZ	1:A:1632:SER:HA	2.51	0.46
1:A:1664:LEU:HD23	1:A:1664:LEU:HA	1.59	0.46
1:B:25:ILE:HD13	1:B:41:ILE:HB	1.96	0.46
1:B:171:VAL:O	1:B:171:VAL:HG12	2.16	0.46
1:B:377:ASP:O	1:B:380:ASP:N	2.41	0.46
1:B:496:ILE:HD13	1:B:517:LYS:NZ	2.30	0.46
1:B:894:HIS:ND1	1:B:895:LEU:O	2.49	0.46
1:B:930:VAL:CG1	1:B:931:PRO:CD	2.94	0.46
1:B:977:LEU:HD13	1:B:1346:LEU:CD2	2.45	0.46
1:A:42:GLN:CD	1:A:543:TYR:HH	2.23	0.46
1:A:54:ILE:HG22	1:A:55:SER:H	1.80	0.46
1:A:693:SER:O	1:A:696:LYS:N	2.48	0.46
1:A:1638:PRO:O	1:A:1639:LEU:HB3	2.15	0.46
1:B:964:PRO:C	1:B:966:ASP:H	2.23	0.46
1:B:969:PRO:O	1:B:971:THR:HG23	2.16	0.46
1:B:1274:LEU:HB3	1:B:1297:LEU:HD11	1.98	0.46
1:A:903:LEU:HD22	1:A:903:LEU:N	2.31	0.45
1:A:930:VAL:CG1	1:A:931:PRO:CD	2.93	0.45
1:A:1346:LEU:HG	1:A:1347:ILE:N	2.32	0.45
1:A:1618:LEU:HD12	1:A:1618:LEU:O	2.16	0.45
1:A:1651:ASP:HB3	1:A:1654:CYS:SG	2.56	0.45
1:B:198:MET:HE2	1:B:198:MET:CA	2.38	0.45
1:B:222:TYR:CD2	1:B:223:VAL:N	2.85	0.45
1:B:304:GLU:O	1:B:308:LYS:HG3	2.16	0.45
1:B:693:SER:O	1:B:696:LYS:HB3	2.16	0.45
1:B:1016:VAL:HG12	1:B:1017:PRO:HD3	1.98	0.45
1:B:1136:GLU:OE1	1:B:1415:SER:CB	2.64	0.45
2:Y:77:PRO:O	2:Y:78:LYS:CB	2.64	0.45
2:Y:101:GLN:HB3	2:Y:123:THR:O	2.17	0.45
2:Y:107:GLN:OE1	2:Y:110:ILE:HD11	2.14	0.45
1:A:193:ASN:OD1	1:A:193:ASN:C	2.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:227:PHE:CZ	1:A:338:GLU:HB2	2.52	0.45
1:A:284:GLN:O	1:A:285:THR:C	2.58	0.45
1:A:389:THR:CG2	1:A:408:LYS:HE2	2.32	0.45
1:A:410:VAL:CG1	1:A:411:THR:N	2.79	0.45
1:A:511:HIS:ND1	2:X:149:SER:CB	2.80	0.45
1:A:737:GLN:HG2	1:A:737:GLN:H	1.61	0.45
1:A:820:PHE:HE2	1:A:848:TYR:HD2	1.57	0.45
1:A:862:VAL:HG21	1:A:909:ASN:O	2.16	0.45
1:B:195:ARG:CD	1:B:1058:SER:HA	2.46	0.45
1:B:318:LEU:O	1:B:319:ASN:CB	2.58	0.45
1:B:385:GLY:H	1:B:411:THR:HG23	1.80	0.45
1:B:424:LEU:HA	1:B:424:LEU:HD23	1.51	0.45
1:B:693:SER:O	1:B:696:LYS:N	2.48	0.45
1:B:946:PRO:HD2	1:B:947:ARG:H	1.81	0.45
1:A:292:LEU:HD22	1:A:296:ILE:C	2.41	0.45
1:A:384:GLY:C	1:A:411:THR:HG23	2.41	0.45
1:A:428:VAL:HG22	1:A:429:THR:N	2.30	0.45
1:A:544:TYR:CD2	1:A:546:VAL:HG23	2.51	0.45
1:A:592:MET:HE2	1:A:592:MET:HB2	1.69	0.45
1:A:949:ILE:HB	1:A:950:TYR:HD2	1.81	0.45
1:A:1651:ASP:CB	1:A:1654:CYS:SG	3.05	0.45
2:X:138:VAL:O	2:X:138:VAL:HG12	2.16	0.45
1:B:98:PRO:C	1:B:100:SER:H	2.24	0.45
1:B:504:LEU:CD1	1:B:504:LEU:N	2.79	0.45
1:B:754:MET:O	1:B:755:LYS:CG	2.65	0.45
1:B:1401:ARG:HG2	1:B:1402:ILE:N	2.28	0.45
1:A:27:ALA:HB2	1:A:39:ILE:HD12	1.98	0.45
1:A:73:LEU:H	1:A:73:LEU:CD2	2.20	0.45
1:A:159:THR:HG22	1:A:160:VAL:N	2.31	0.45
1:A:511:HIS:NE2	1:A:531:THR:HG21	2.31	0.45
1:A:667:GLU:O	1:A:669:CYS:N	2.44	0.45
1:A:1196:SER:HB2	1:A:1257:THR:HG23	1.99	0.45
1:A:1673:LEU:HB2	1:B:258:LYS:CE	2.46	0.45
1:B:149:ASN:O	1:B:150:ASP:C	2.59	0.45
1:B:310:LEU:N	1:B:310:LEU:HD23	2.30	0.45
1:B:465:LEU:HD21	1:B:542:VAL:HG12	1.98	0.45
1:B:758:LEU:HD22	1:B:760:VAL:H	1.82	0.45
1:B:781:PRO:C	1:B:783:ARG:H	2.25	0.45
1:B:1168:LEU:HA	1:B:1168:LEU:HD23	1.57	0.45
1:B:1420:SER:HB3	1:B:1497:GLU:OE2	2.16	0.45
2:Y:66:ASN:OD1	2:Y:66:ASN:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:127:PHE:HE1	1:A:626:PHE:CD2	2.34	0.45
1:A:247:GLU:HG3	1:A:300:THR:HG23	1.97	0.45
1:A:373:VAL:HG21	1:A:388:VAL:HG11	1.98	0.45
1:A:379:LEU:CB	1:A:381:GLN:HE22	2.29	0.45
1:A:639:GLY:HA3	1:A:645:VAL:HA	1.98	0.45
1:A:707:ASN:HB3	1:A:739:ARG:CZ	2.46	0.45
1:A:969:PRO:O	1:A:971:THR:HG23	2.17	0.45
1:A:1012:LEU:HD23	1:A:1012:LEU:HA	1.79	0.45
1:A:1379:LEU:HD23	1:A:1406:ALA:HA	1.98	0.45
1:A:1488:LEU:C	1:A:1488:LEU:HD13	2.39	0.45
1:A:1568:ILE:HG23	1:A:1568:ILE:O	2.16	0.45
1:B:101:TYR:CE1	1:B:116:ARG:NE	2.84	0.45
1:B:113:LYS:HG3	1:B:114:SER:H	1.80	0.45
1:B:496:ILE:HG23	1:B:544:TYR:HB2	1.97	0.45
1:B:572:GLN:HG3	1:B:574:HIS:NE2	2.32	0.45
1:B:755:LYS:HD2	1:B:755:LYS:HA	1.82	0.45
1:B:981:GLY:H	1:B:1333:PHE:HB2	1.81	0.45
2:Y:138:VAL:HG12	2:Y:138:VAL:O	2.16	0.45
1:A:79:PHE:O	1:A:80:GLN:HG2	2.16	0.45
1:A:481:HIS:CE1	1:A:529:PRO:HG3	2.52	0.45
1:A:583:SER:O	1:A:585:GLY:N	2.49	0.45
1:A:626:PHE:O	1:A:628:GLU:N	2.49	0.45
1:A:833:VAL:HG13	1:A:839:ILE:HD13	1.99	0.45
1:A:895:LEU:CD1	1:A:1555:PRO:CB	2.93	0.45
1:A:935:LYS:HD2	1:A:935:LYS:HA	1.65	0.45
1:A:987:ILE:HD13	1:A:1294:ILE:HG23	1.97	0.45
1:A:1016:VAL:CG1	1:A:1017:PRO:HD3	2.47	0.45
1:A:1420:SER:O	1:A:1421:HIS:C	2.58	0.45
1:A:1557:ILE:C	1:A:1559:TYR:H	2.24	0.45
1:A:1670:ASP:O	1:A:1670:ASP:OD2	2.34	0.45
1:B:375:VAL:HG12	1:B:376:LYS:N	2.31	0.45
1:B:379:LEU:CB	1:B:381:GLN:HE22	2.30	0.45
1:B:444:GLU:O	1:B:447:GLN:HB2	2.17	0.45
1:B:489:LYS:O	1:B:491:PRO:CD	2.61	0.45
1:B:572:GLN:HE21	1:B:574:HIS:CE1	2.33	0.45
1:B:774:LEU:HA	1:B:774:LEU:HD23	1.69	0.45
1:B:827:MET:HE3	1:B:827:MET:HB3	1.79	0.45
1:B:1090:ASN:OD1	1:B:1090:ASN:O	2.34	0.45
1:A:123:ASN:CG	1:A:157:ARG:HH22	2.25	0.45
1:A:157:ARG:H	1:A:178:ASP:CB	2.28	0.45
1:A:260:VAL:HG11	1:A:263:ALA:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:280:LYS:HG2	1:A:282:MET:HE3	1.99	0.45
1:A:769:PHE:HA	1:A:770:PRO:HD3	1.78	0.45
1:A:837:GLU:HG3	1:A:1488:LEU:HA	1.99	0.45
1:A:1213:LYS:HG3	1:A:1266:TYR:OH	2.17	0.45
1:A:1563:VAL:HA	1:A:1582:LEU:HD13	1.98	0.45
1:A:1637:TYR:CZ	1:A:1638:PRO:HG2	2.51	0.45
1:B:48:GLU:C	1:B:49:ALA:O	2.59	0.45
1:B:277:ASP:CG	1:B:279:GLN:O	2.60	0.45
1:B:503:ILE:HG12	1:B:540:LEU:HB3	1.97	0.45
1:B:512:PHE:N	1:B:512:PHE:CD2	2.85	0.45
1:B:1270:VAL:HG12	1:B:1271:ILE:N	2.31	0.45
1:B:1300:TYR:CZ	1:B:1304:VAL:HG21	2.52	0.45
2:Y:73:VAL:CG1	2:Y:74:ARG:H	2.29	0.45
1:A:156:LYS:HG2	1:A:178:ASP:O	2.17	0.45
1:A:292:LEU:HD13	1:A:293:ILE:H	1.81	0.45
1:A:977:LEU:HD12	1:A:1361:VAL:HG23	1.92	0.45
1:A:1035:HIS:H	1:A:1035:HIS:CD2	2.35	0.45
1:A:1052:GLY:O	1:A:1055:SER:HB3	2.17	0.45
1:A:1668:ALA:C	1:A:1670:ASP:H	2.25	0.45
2:X:81:ASN:O	2:X:115:ARG:HB2	2.17	0.45
1:B:149:ASN:C	1:B:151:ASP:H	2.24	0.45
1:B:531:THR:N	1:B:534:MET:SD	2.80	0.45
1:B:654:LEU:HD12	1:B:654:LEU:HA	1.57	0.45
1:B:1037:ASP:HA	1:B:1038:PRO:HD3	1.73	0.45
1:B:1049:LEU:HD23	1:B:1093:VAL:HG23	1.99	0.45
1:B:1132:THR:N	1:B:1135:VAL:HB	2.29	0.45
1:B:1141:SER:O	1:B:1142:LEU:C	2.60	0.45
1:B:1279:ARG:CB	1:B:1284:PHE:HB2	2.45	0.45
1:B:1289:ASP:CG	1:B:1290:THR:N	2.73	0.45
1:B:1451:THR:HG23	1:B:1464:LEU:HA	1.98	0.45
1:A:133:PRO:O	1:A:134:VAL:HG23	2.17	0.45
1:A:180:ILE:HD12	1:A:599:TRP:CG	2.52	0.45
1:A:885:ARG:HG2	1:A:1626:GLN:O	2.17	0.45
1:A:942:VAL:HG22	1:A:957:LYS:HD3	1.99	0.45
1:A:1599:THR:CG2	1:A:1600:PHE:H	2.30	0.45
1:B:165:ASP:C	1:B:167:GLU:H	2.25	0.45
1:B:444:GLU:OE1	1:B:449:ARG:NH2	2.49	0.45
1:B:461:SER:C	1:B:463:SER:H	2.25	0.45
1:B:587:THR:HA	1:B:789:ALA:HA	1.99	0.45
1:B:702:GLY:CA	1:B:728:PHE:CD1	2.98	0.45
1:B:707:ASN:HB3	1:B:739:ARG:CZ	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:98:PRO:C	1:A:100:SER:H	2.24	0.45
1:A:208:ASP:O	1:A:209:PHE:CG	2.70	0.45
1:A:298:GLN:O	1:A:299:VAL:HG13	2.17	0.45
1:A:557:ASP:CG	1:A:558:SER:N	2.75	0.45
1:A:781:PRO:C	1:A:783:ARG:H	2.25	0.45
1:A:1274:LEU:C	1:A:1276:GLU:N	2.73	0.45
1:A:1279:ARG:CG	1:A:1284:PHE:CG	2.99	0.45
1:A:1280:TYR:HD1	1:A:1362:THR:HG21	1.81	0.45
1:A:1531:ASP:OD1	1:A:1531:ASP:O	2.34	0.45
2:X:104:PHE:CD2	2:X:164:GLU:HB2	2.52	0.45
1:B:71:VAL:O	1:B:71:VAL:CG2	2.64	0.45
1:B:626:PHE:O	1:B:628:GLU:N	2.49	0.45
1:B:938:SER:C	1:B:940:SER:H	2.25	0.45
1:A:254:TYR:HB3	1:A:256:TYR:CE2	2.52	0.44
1:A:304:GLU:O	1:A:308:LYS:HG3	2.17	0.44
1:A:499:TYR:CE2	1:A:517:LYS:CG	3.00	0.44
1:A:503:ILE:HG12	1:A:540:LEU:HB3	1.98	0.44
1:A:773:TRP:HZ3	1:A:788:PHE:CE1	2.35	0.44
1:A:834:VAL:HB	1:A:837:GLU:CD	2.42	0.44
1:A:981:GLY:HA3	1:A:1309:LEU:HD11	1.98	0.44
1:A:1279:ARG:CB	1:A:1284:PHE:HB2	2.42	0.44
1:A:1484:GLU:H	1:A:1484:GLU:CD	2.25	0.44
2:X:61:SER:N	2:X:75:PHE:CZ	2.84	0.44
1:B:59:TYR:HD1	1:B:59:TYR:HA	1.63	0.44
1:B:265:VAL:HG23	1:B:292:LEU:H	1.82	0.44
1:B:492:TYR:CD2	1:B:492:TYR:C	2.94	0.44
1:B:520:ASP:CG	1:B:521:ALA:H	2.25	0.44
1:B:768:TYR:HE2	1:B:770:PRO:HA	1.82	0.44
1:B:819:VAL:O	1:B:820:PHE:CB	2.66	0.44
1:B:1255:LEU:HD13	1:B:1270:VAL:HG11	2.00	0.44
1:B:1429:PRO:HB3	1:B:1488:LEU:HD22	1.99	0.44
1:A:234:GLU:HB2	1:A:247:GLU:N	2.32	0.44
1:A:367:ILE:HG23	1:A:368:PRO:HD2	1.99	0.44
1:A:444:GLU:OE1	1:A:449:ARG:NH2	2.50	0.44
1:A:492:TYR:HH	1:A:548:GLY:HA2	1.81	0.44
1:A:610:TYR:HB3	1:A:614:ARG:HD2	2.00	0.44
1:A:986:GLU:CG	1:A:1281:GLY:H	2.30	0.44
1:A:1271:ILE:O	1:A:1272:LYS:C	2.60	0.44
1:A:1604:VAL:CG1	1:A:1605:THR:N	2.79	0.44
1:B:156:LYS:HG2	1:B:178:ASP:O	2.17	0.44
1:B:180:ILE:HD12	1:B:599:TRP:CG	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:252:ALA:HB1	1:B:260:VAL:HG21	1.99	0.44
1:B:428:VAL:HG22	1:B:429:THR:N	2.32	0.44
1:B:531:THR:HG23	1:B:533:ASN:H	1.81	0.44
1:B:639:GLY:HA3	1:B:645:VAL:HA	1.98	0.44
1:B:845:VAL:HG12	1:B:894:HIS:O	2.16	0.44
1:B:931:PRO:HB2	1:B:1366:HIS:CD2	2.52	0.44
1:B:1147:PHE:C	1:B:1147:PHE:CD2	2.95	0.44
2:Y:61:SER:N	2:Y:75:PHE:CZ	2.85	0.44
1:A:24:VAL:HG11	1:A:543:TYR:OH	2.17	0.44
1:A:165:ASP:C	1:A:167:GLU:H	2.26	0.44
1:A:845:VAL:HG12	1:A:894:HIS:O	2.16	0.44
1:A:855:PHE:CZ	1:A:886:GLN:HB3	2.53	0.44
1:A:1141:SER:O	1:A:1142:LEU:C	2.61	0.44
1:A:1274:LEU:HB3	1:A:1297:LEU:HD11	2.00	0.44
1:A:1381:ILE:HG13	1:A:1404:ALA:HB2	1.99	0.44
1:B:50:PHE:HB3	1:B:109:LYS:HE2	1.99	0.44
1:B:127:PHE:HE1	1:B:626:PHE:CD2	2.35	0.44
1:B:367:ILE:HD13	1:B:466:TYR:HD2	1.82	0.44
1:B:931:PRO:C	1:B:932:GLU:OE1	2.60	0.44
1:B:1012:LEU:HD23	1:B:1012:LEU:HA	1.81	0.44
1:B:1027:THR:O	1:B:1027:THR:HG22	2.16	0.44
1:B:1143:TYR:CD1	1:B:1186:PHE:CE2	3.05	0.44
1:A:153:LYS:O	1:A:155:ALA:N	2.51	0.44
1:A:375:VAL:HG12	1:A:376:LYS:N	2.32	0.44
1:A:847:ASN:HD21	1:A:853:MET:HG2	1.82	0.44
1:A:938:SER:C	1:A:940:SER:H	2.26	0.44
1:A:1182:ALA:CB	1:A:1188:LEU:HD13	2.47	0.44
1:A:1278:GLN:O	1:A:1360:HIS:NE2	2.49	0.44
1:A:1484:GLU:OE1	1:A:1484:GLU:N	2.41	0.44
1:A:1535:MET:HA	1:A:1645:ILE:HD11	1.99	0.44
1:B:504:LEU:HD21	1:B:651:LEU:HG	1.99	0.44
1:B:643:ALA:O	1:B:646:PHE:N	2.50	0.44
1:B:820:PHE:CZ	1:B:848:TYR:CD2	3.05	0.44
1:B:833:VAL:HA	1:B:1430:THR:HG21	1.98	0.44
1:B:1108:VAL:CG2	1:B:1167:ALA:HB2	2.46	0.44
2:Y:104:PHE:CD2	2:Y:164:GLU:HB2	2.53	0.44
1:A:995:GLU:O	1:A:996:GLY:O	2.36	0.44
1:A:1000:LEU:HD23	1:A:1000:LEU:HA	1.73	0.44
1:A:1204:GLN:OE1	1:A:1204:GLN:HA	2.18	0.44
1:A:1328:MET:O	1:A:1329:THR:HG23	2.18	0.44
1:A:1515:LYS:C	1:A:1516:ILE:HG13	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1548:ARG:O	1:A:1667:PHE:HE1	2.01	0.44
1:A:1558:ALA:HB3	1:A:1623:GLU:N	2.33	0.44
1:A:1569:THR:HG21	1:A:1574:PHE:HD2	1.82	0.44
1:B:32:ARG:HB2	1:B:35:ALA:HB2	1.99	0.44
1:B:56:ILE:H	1:B:56:ILE:HG12	1.62	0.44
1:B:352:TYR:HA	1:B:376:LYS:O	2.16	0.44
1:B:367:ILE:CD1	1:B:466:TYR:CB	2.94	0.44
1:B:442:LEU:CD2	1:B:443:PRO:HD3	2.47	0.44
1:B:995:GLU:O	1:B:996:GLY:O	2.36	0.44
2:Y:71:ASN:O	2:Y:72:VAL:HG23	2.18	0.44
2:Y:128:LYS:HD3	2:Y:158:GLU:HG2	1.99	0.44
1:A:141:VAL:CG2	1:A:190:ILE:HD11	2.46	0.44
1:A:754:MET:O	1:A:755:LYS:CG	2.65	0.44
1:A:946:PRO:HD2	1:A:947:ARG:H	1.82	0.44
1:A:1247:MET:HB2	1:A:1247:MET:HE3	1.48	0.44
1:A:1447:ASP:O	1:A:1448:GLN:C	2.60	0.44
1:A:1522:GLY:O	1:A:1523:ALA:CB	2.65	0.44
1:A:1651:ASP:C	1:A:1653:THR:H	2.25	0.44
1:A:1673:LEU:HB2	1:B:258:LYS:HE3	1.99	0.44
2:X:43:ILE:HB	2:X:185:LYS:HZ3	1.83	0.44
1:B:315:LEU:O	1:B:318:LEU:HB2	2.16	0.44
1:B:862:VAL:HG21	1:B:909:ASN:O	2.17	0.44
1:B:894:HIS:ND1	1:B:894:HIS:C	2.75	0.44
1:B:1105:LEU:HD22	1:B:1109:GLU:OE1	2.18	0.44
2:Y:57:TYR:HE1	2:Y:77:PRO:HA	1.83	0.44
1:A:102:VAL:HG23	1:A:103:TYR:N	2.31	0.44
1:A:173:MET:C	1:A:174:VAL:HG12	2.42	0.44
1:A:185:PHE:HB3	1:A:186:PRO:HD3	1.99	0.44
1:A:369:TYR:HA	1:A:370:PRO:HD3	1.73	0.44
1:A:424:LEU:HA	1:A:424:LEU:HD23	1.51	0.44
1:A:520:ASP:CG	1:A:521:ALA:H	2.25	0.44
1:A:897:THR:C	1:A:898:PHE:CD2	2.95	0.44
1:A:1090:ASN:OD1	1:A:1090:ASN:O	2.35	0.44
1:A:1227:PHE:HB2	1:A:1251:THR:HG21	1.99	0.44
1:A:1261:LEU:O	1:A:1263:ASP:N	2.51	0.44
1:A:1520:CYS:HB3	1:A:1526:LYS:NZ	2.33	0.44
2:X:71:ASN:O	2:X:72:VAL:HG23	2.18	0.44
2:X:77:PRO:O	2:X:78:LYS:CB	2.64	0.44
2:X:101:GLN:HB3	2:X:123:THR:O	2.17	0.44
1:B:131:ASP:OD1	1:B:135:TYR:OH	2.22	0.44
1:B:486:VAL:HG21	1:B:526:ILE:HG13	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:696:LYS:HZ1	1:B:700:TYR:HD2	1.57	0.44
1:B:930:VAL:HG12	1:B:931:PRO:CD	2.47	0.44
1:B:1236:ASP:HB2	1:B:1412:ARG:NH2	2.32	0.44
1:B:1279:ARG:HG3	1:B:1284:PHE:HB3	1.82	0.44
1:A:101:TYR:CE1	1:A:116:ARG:NE	2.86	0.44
1:A:155:ALA:O	1:A:157:ARG:HG3	2.17	0.44
1:A:277:ASP:CG	1:A:279:GLN:O	2.60	0.44
1:A:388:VAL:O	1:A:420:PHE:HZ	2.01	0.44
1:A:496:ILE:HD12	1:A:496:ILE:H	1.82	0.44
1:A:557:ASP:CG	1:A:558:SER:H	2.25	0.44
1:A:1105:LEU:HD22	1:A:1109:GLU:OE1	2.18	0.44
1:A:1345:ASP:OD2	1:A:1345:ASP:N	2.51	0.44
1:A:1568:ILE:CG2	1:A:1613:LYS:HB2	2.48	0.44
1:B:66:TYR:CD1	1:B:90:LYS:HG3	2.53	0.44
1:B:444:GLU:OE1	1:B:444:GLU:C	2.61	0.44
1:B:478:VAL:O	1:B:478:VAL:CG1	2.60	0.44
1:B:550:GLN:HG2	1:B:551:THR:N	2.33	0.44
1:B:557:ASP:CG	1:B:558:SER:N	2.76	0.44
1:B:905:ILE:C	1:B:907:LEU:H	2.26	0.44
1:A:48:GLU:C	1:A:49:ALA:O	2.59	0.44
1:A:550:GLN:HG2	1:A:551:THR:N	2.32	0.44
1:A:701:ASP:C	1:A:701:ASP:OD1	2.61	0.44
1:A:829:ILE:HD11	1:A:925:LYS:HG2	1.99	0.44
1:A:946:PRO:CD	1:A:947:ARG:H	2.31	0.44
1:A:955:ARG:O	1:A:956:ARG:HG3	2.17	0.44
1:A:1283:GLY:O	1:A:1285:TYR:N	2.50	0.44
1:A:1467:ILE:O	1:A:1468:PRO:C	2.60	0.44
1:B:280:LYS:HG2	1:B:282:MET:HE3	1.99	0.44
1:B:410:VAL:CG1	1:B:411:THR:N	2.80	0.44
1:B:423:ASN:N	1:B:423:ASN:HD22	2.15	0.44
1:B:577:PRO:HD2	1:B:588:VAL:CG2	2.45	0.44
1:B:607:SER:HB3	1:B:796:THR:O	2.18	0.44
1:B:703:ALA:HB1	1:B:735:ALA:HB3	2.00	0.44
1:B:1209:VAL:O	1:B:1213:LYS:HB2	2.17	0.44
1:A:265:VAL:HG23	1:A:292:LEU:H	1.83	0.43
1:A:315:LEU:O	1:A:318:LEU:HB2	2.18	0.43
1:A:444:GLU:OE1	1:A:444:GLU:C	2.60	0.43
1:A:686:ILE:O	1:A:686:ILE:HG22	2.18	0.43
1:A:947:ARG:O	1:A:949:ILE:N	2.51	0.43
1:A:1200:LYS:H	1:A:1200:LYS:HG2	1.59	0.43
1:A:1257:THR:O	1:A:1260:ASN:HB2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1274:LEU:HD23	1:A:1274:LEU:HA	1.81	0.43
1:A:1638:PRO:O	1:A:1639:LEU:CB	2.65	0.43
1:B:248:ILE:CD1	1:B:325:ILE:HD13	2.44	0.43
1:B:466:TYR:C	1:B:466:TYR:HD1	2.20	0.43
1:B:633:GLY:O	1:B:634:CYS:HB2	2.18	0.43
1:B:1035:HIS:H	1:B:1035:HIS:CD2	2.35	0.43
2:Y:189:ILE:HD12	2:Y:201:ILE:HD12	1.99	0.43
1:A:56:ILE:H	1:A:56:ILE:HG12	1.61	0.43
1:A:106:VAL:HG12	1:A:107:VAL:N	2.33	0.43
1:A:356:LEU:CD1	1:A:452:TYR:CE1	3.01	0.43
1:A:461:SER:C	1:A:463:SER:H	2.26	0.43
1:A:949:ILE:H	1:A:949:ILE:HG12	1.59	0.43
1:A:1104:LEU:O	1:A:1108:VAL:HG12	2.18	0.43
1:A:1186:PHE:HD1	1:A:1250:THR:HG22	1.82	0.43
1:A:1195:LEU:O	1:A:1196:SER:C	2.61	0.43
1:B:59:TYR:CD1	1:B:103:TYR:CE1	2.83	0.43
1:B:79:PHE:O	1:B:80:GLN:HG2	2.18	0.43
1:B:260:VAL:HG11	1:B:263:ALA:HB2	2.00	0.43
1:B:292:LEU:HD13	1:B:293:ILE:H	1.83	0.43
1:B:544:TYR:CE2	1:B:546:VAL:CG2	3.01	0.43
1:B:653:PHE:CD2	1:B:653:PHE:N	2.86	0.43
1:B:717:ARG:HD2	1:B:1448:GLN:O	2.17	0.43
1:B:773:TRP:HZ3	1:B:788:PHE:CE1	2.36	0.43
1:B:847:ASN:HD21	1:B:853:MET:HG2	1.82	0.43
1:B:944:LEU:HB2	1:B:1357:ALA:O	2.19	0.43
1:B:1186:PHE:HD1	1:B:1250:THR:HG22	1.83	0.43
1:B:1200:LYS:HE3	1:B:1261:LEU:CD2	2.37	0.43
2:Y:81:ASN:O	2:Y:115:ARG:HB2	2.17	0.43
1:A:382:LEU:HD23	1:A:382:LEU:HA	1.65	0.43
1:A:512:PHE:CD2	1:A:512:PHE:N	2.86	0.43
1:A:703:ALA:HB1	1:A:735:ALA:HB3	2.00	0.43
1:A:968:VAL:CG1	1:A:1368:THR:HG22	2.41	0.43
1:A:975:ARG:CB	1:A:1363:THR:HB	2.45	0.43
1:A:1037:ASP:HA	1:A:1038:PRO:HD3	1.73	0.43
1:A:1674:ASN:CA	1:B:258:LYS:HZ2	2.16	0.43
2:X:104:PHE:CG	2:X:164:GLU:HB2	2.54	0.43
1:B:271:ILE:CG2	1:B:272:ARG:H	2.19	0.43
1:B:686:ILE:O	1:B:686:ILE:HG22	2.18	0.43
1:A:165:ASP:C	1:A:165:ASP:OD1	2.61	0.43
1:A:442:LEU:HD23	1:A:442:LEU:HA	1.45	0.43
1:A:1451:THR:HG23	1:A:1464:LEU:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:X:70:SER:CB	2:X:91:LYS:HE3	2.45	0.43
2:X:151:ASP:OD2	2:X:177:TYR:OH	2.27	0.43
1:B:161:LEU:HD11	1:B:185:PHE:CD1	2.54	0.43
1:B:198:MET:HA	1:B:198:MET:CE	2.40	0.43
1:B:442:LEU:HD22	1:B:443:PRO:CD	2.48	0.43
1:B:1052:GLY:O	1:B:1055:SER:HB3	2.19	0.43
1:B:1279:ARG:CD	1:B:1284:PHE:CG	3.02	0.43
1:B:1379:LEU:HD23	1:B:1406:ALA:HA	2.01	0.43
1:B:1484:GLU:CD	1:B:1484:GLU:N	2.76	0.43
1:B:1501:PRO:C	1:B:1503:LYS:H	2.25	0.43
1:B:1507:MET:HE3	1:B:1507:MET:HB3	1.41	0.43
1:B:1515:LYS:O	1:B:1517:GLN:NE2	2.51	0.43
1:A:104:LEU:O	1:A:114:SER:CB	2.67	0.43
1:A:144:ARG:HG2	1:A:775:TRP:CZ2	2.53	0.43
1:A:172:ASP:OD2	1:A:173:MET:N	2.42	0.43
1:A:495:LYS:CE	1:A:495:LYS:HA	2.48	0.43
1:A:1108:VAL:CG2	1:A:1167:ALA:HB2	2.49	0.43
1:A:1255:LEU:CD1	1:A:1267:VAL:HG22	2.49	0.43
1:A:1507:MET:HE3	1:A:1507:MET:HB3	1.42	0.43
1:A:1667:PHE:O	1:A:1670:ASP:HB3	2.18	0.43
2:X:57:TYR:HE1	2:X:77:PRO:HA	1.83	0.43
1:B:149:ASN:H	1:B:155:ALA:HB2	1.82	0.43
1:B:364:LYS:N	1:B:364:LYS:CD	2.81	0.43
1:B:367:ILE:HG23	1:B:368:PRO:HD2	2.01	0.43
1:B:554:LEU:HD11	1:B:655:THR:HG21	2.00	0.43
1:B:1054:LEU:C	1:B:1056:ILE:N	2.75	0.43
1:B:1267:VAL:O	1:B:1268:ASN:C	2.59	0.43
1:B:1277:GLU:HA	1:B:1277:GLU:OE2	2.17	0.43
1:B:1447:ASP:O	1:B:1448:GLN:C	2.60	0.43
2:Y:86:LEU:HG	2:Y:91:LYS:HB2	2.00	0.43
1:A:506:LYS:HZ3	1:A:536:PRO:HD2	1.82	0.43
1:A:774:LEU:HD11	1:A:788:PHE:CE2	2.54	0.43
1:A:981:GLY:H	1:A:1333:PHE:HB2	1.84	0.43
1:A:1044:LYS:O	1:A:1047:LYS:HB3	2.17	0.43
1:A:1266:TYR:O	1:A:1269:PRO:HD2	2.19	0.43
1:A:1670:ASP:OD2	1:A:1670:ASP:C	2.61	0.43
1:B:182:ILE:HD11	1:B:599:TRP:HB3	2.01	0.43
1:B:292:LEU:HD22	1:B:296:ILE:C	2.44	0.43
1:B:388:VAL:O	1:B:420:PHE:HZ	2.02	0.43
1:B:495:LYS:CE	1:B:495:LYS:HA	2.48	0.43
1:B:764:GLU:H	1:B:764:GLU:HG2	1.68	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:85:LEU:O	1:A:86:THR:CB	2.50	0.43
1:A:271:ILE:CG2	1:A:272:ARG:H	2.19	0.43
1:A:365:PRO:C	1:A:367:ILE:H	2.25	0.43
1:A:504:LEU:HA	1:A:509:ILE:HA	2.00	0.43
1:A:1135:VAL:O	1:A:1138:ARG:HB3	2.19	0.43
1:A:1523:ALA:C	1:A:1525:CYS:N	2.73	0.43
1:B:250:ILE:HD12	1:B:327:VAL:HG11	1.99	0.43
1:B:485:ILE:HD12	1:B:485:ILE:HA	1.75	0.43
1:B:591:ASN:OD1	1:B:785:GLN:HB2	2.19	0.43
1:B:769:PHE:HA	1:B:770:PRO:HD3	1.78	0.43
1:B:896:VAL:C	1:B:897:THR:HG22	2.43	0.43
1:B:1425:ASP:OD2	1:B:1425:ASP:C	2.62	0.43
1:A:191:PRO:O	1:A:194:PRO:HG3	2.19	0.43
1:A:415:ASP:CG	1:A:417:VAL:HB	2.44	0.43
1:A:554:LEU:HD11	1:A:655:THR:HG21	2.01	0.43
1:A:571:LEU:HD11	1:A:573:VAL:HG13	1.99	0.43
1:A:819:VAL:O	1:A:820:PHE:HB2	2.19	0.43
1:A:1255:LEU:HD13	1:A:1270:VAL:HG11	2.01	0.43
1:A:1560:ALA:CB	1:A:1620:MET:HG2	2.49	0.43
1:B:137:PRO:HG3	1:B:196:TYR:OH	2.18	0.43
1:B:144:ARG:NH1	1:B:775:TRP:CE2	2.87	0.43
1:B:208:ASP:O	1:B:209:PHE:CG	2.72	0.43
1:B:237:PHE:CE1	1:B:378:SER:HB2	2.54	0.43
1:B:472:ASN:OD1	1:B:472:ASN:N	2.46	0.43
1:B:557:ASP:CG	1:B:558:SER:H	2.27	0.43
1:B:938:SER:OG	1:B:1279:ARG:CZ	2.66	0.43
1:B:1221:ASN:ND2	1:B:1222:PRO:HA	2.33	0.43
1:A:147:SER:C	1:A:148:LEU:HD13	2.43	0.43
1:A:350:SER:HA	1:A:351:PRO:HD3	1.90	0.43
1:A:387:PRO:HA	1:A:410:VAL:HG22	2.01	0.43
1:A:544:TYR:CD1	1:A:544:TYR:N	2.85	0.43
1:A:930:VAL:HG12	1:A:931:PRO:CD	2.47	0.43
1:A:956:ARG:CG	1:A:1349:SER:HB3	2.49	0.43
1:A:1132:THR:O	1:A:1133:LEU:C	2.61	0.43
1:A:1230:ASP:C	1:A:1231:ASN:O	2.61	0.43
1:A:1432:ILE:HG22	1:A:1432:ILE:O	2.18	0.43
1:A:1501:PRO:C	1:A:1503:LYS:H	2.26	0.43
2:X:134:THR:HA	2:X:135:PRO:HD2	1.92	0.43
1:B:84:ILE:CD1	2:Y:135:PRO:HG3	2.48	0.43
1:B:424:LEU:HA	1:B:425:PRO:HD3	1.82	0.43
1:B:948:GLY:HA2	1:B:952:THR:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1000:LEU:HD23	1:B:1000:LEU:HA	1.72	0.43
1:B:1149:VAL:HG13	1:B:1153:ARG:HG2	1.99	0.43
1:B:1158:ILE:H	1:B:1158:ILE:HG13	1.52	0.43
1:B:1257:THR:O	1:B:1260:ASN:HB2	2.19	0.43
2:Y:151:ASP:OD2	2:Y:177:TYR:OH	2.29	0.43
1:A:154:PRO:O	1:A:155:ALA:HB3	2.19	0.43
1:A:182:ILE:HD11	1:A:599:TRP:HB3	2.01	0.43
1:A:1180:LEU:CD1	1:A:1207:SER:HB3	2.49	0.43
1:B:52:ALA:CB	1:B:73:LEU:HD21	2.49	0.43
1:B:323:LEU:C	1:B:323:LEU:CD1	2.92	0.43
1:B:389:THR:CG2	1:B:408:LYS:HE2	2.38	0.43
1:B:460:LEU:C	1:B:462:GLN:N	2.77	0.43
1:B:477:LEU:O	1:B:530:VAL:HG11	2.18	0.43
1:B:497:THR:CG2	1:B:498:HIS:H	2.23	0.43
1:B:847:ASN:O	1:B:848:TYR:HD1	2.02	0.43
1:B:899:THR:OG1	1:B:1523:ALA:HB1	2.18	0.43
1:B:938:SER:C	1:B:940:SER:N	2.77	0.43
1:B:975:ARG:CB	1:B:1363:THR:HB	2.45	0.43
1:B:1016:VAL:CG1	1:B:1017:PRO:HD3	2.48	0.43
1:B:1079:THR:HG22	1:B:1107:LEU:HD11	2.01	0.43
1:B:1188:LEU:HD21	1:B:1212:LEU:CA	2.49	0.43
1:B:1346:LEU:HG	1:B:1347:ILE:N	2.33	0.43
1:A:166:PRO:HG2	1:A:195:ARG:O	2.18	0.42
1:A:229:VAL:HG21	1:A:329:VAL:HB	2.01	0.42
1:A:395:ILE:O	1:A:395:ILE:HG13	2.18	0.42
1:A:717:ARG:HD2	1:A:1448:GLN:O	2.18	0.42
1:A:1497:GLU:CD	1:A:1500:ARG:HD2	2.44	0.42
1:B:27:ALA:HB1	1:B:28:PRO:HD2	2.01	0.42
1:B:41:ILE:HG12	1:B:42:GLN:N	2.34	0.42
1:B:316:GLU:O	1:B:317:ASP:C	2.61	0.42
1:B:412:ARG:HD3	1:B:414:ASP:CG	2.44	0.42
1:B:596:MET:O	1:B:597:ASP:C	2.61	0.42
1:B:701:ASP:C	1:B:701:ASP:OD1	2.62	0.42
1:B:774:LEU:HD11	1:B:788:PHE:CZ	2.54	0.42
1:B:946:PRO:CD	1:B:947:ARG:H	2.31	0.42
1:B:981:GLY:HA3	1:B:1309:LEU:CD1	2.48	0.42
1:B:1271:ILE:O	1:B:1272:LYS:C	2.60	0.42
1:B:1345:ASP:OD2	1:B:1345:ASP:N	2.52	0.42
1:B:1465:ASN:ND2	1:B:1465:ASN:N	2.67	0.42
1:A:155:ALA:O	1:A:156:LYS:C	2.62	0.42
1:A:356:LEU:HD12	1:A:452:TYR:CE1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:504:LEU:CD1	1:A:504:LEU:N	2.81	0.42
1:A:544:TYR:CE2	1:A:546:VAL:CG2	3.02	0.42
1:A:820:PHE:CZ	1:A:848:TYR:CD2	3.06	0.42
1:A:827:MET:HE3	1:A:827:MET:HB3	1.71	0.42
1:A:833:VAL:O	1:A:929:VAL:HA	2.19	0.42
1:A:1075:SER:HG	1:A:1078:LEU:H	1.65	0.42
1:A:1535:MET:HA	1:A:1645:ILE:CD1	2.48	0.42
2:X:128:LYS:HD3	2:X:158:GLU:HG2	2.00	0.42
1:B:51:ASP:OD1	1:B:72:HIS:ND1	2.52	0.42
1:B:193:ASN:CG	1:B:1070:LYS:HE2	2.44	0.42
1:B:707:ASN:CB	1:B:739:ARG:HH22	2.28	0.42
1:B:968:VAL:CG1	1:B:1368:THR:HG22	2.46	0.42
1:B:1135:VAL:O	1:B:1136:GLU:C	2.63	0.42
1:B:1182:ALA:CB	1:B:1188:LEU:HD13	2.48	0.42
1:B:1230:ASP:OD1	1:B:1230:ASP:C	2.62	0.42
1:B:1372:GLU:HG3	1:B:1373:GLU:N	2.33	0.42
1:B:1455:ILE:HG13	1:B:1460:VAL:HG22	2.01	0.42
1:B:1485:VAL:HG21	1:B:1488:LEU:CB	2.49	0.42
1:A:505:SER:O	1:A:506:LYS:HB2	2.19	0.42
1:A:587:THR:HA	1:A:789:ALA:CA	2.49	0.42
1:A:596:MET:O	1:A:597:ASP:C	2.61	0.42
1:A:1108:VAL:HG21	1:A:1167:ALA:HB2	2.00	0.42
1:A:1225:TYR:HE1	1:A:1272:LYS:HG3	1.84	0.42
1:A:1277:GLU:HA	1:A:1277:GLU:OE2	2.17	0.42
2:X:78:LYS:HZ2	2:X:79:ASP:HB2	1.82	0.42
2:X:110:ILE:CG2	2:X:111:ASP:N	2.82	0.42
1:B:249:THR:HG23	1:B:298:GLN:HE21	1.84	0.42
1:B:384:GLY:C	1:B:411:THR:HG23	2.44	0.42
1:B:840:GLN:HG2	1:B:899:THR:HG22	2.01	0.42
1:B:1108:VAL:CG2	1:B:1167:ALA:CB	2.97	0.42
1:B:1193:TYR:O	1:B:1196:SER:HB3	2.19	0.42
1:B:1255:LEU:HD13	1:B:1270:VAL:CG1	2.50	0.42
1:A:27:ALA:HB1	1:A:28:PRO:HD2	2.01	0.42
1:A:219:VAL:O	1:A:219:VAL:HG12	2.18	0.42
1:A:447:GLN:OE1	1:A:447:GLN:HA	2.17	0.42
1:A:819:VAL:O	1:A:820:PHE:CB	2.66	0.42
1:A:1132:THR:CB	1:A:1134:PRO:HD2	2.43	0.42
1:A:1149:VAL:HG13	1:A:1153:ARG:HG2	2.02	0.42
1:A:1279:ARG:HG3	1:A:1284:PHE:HB3	1.81	0.42
1:A:1370:THR:O	1:A:1372:GLU:N	2.52	0.42
1:A:1669:GLU:O	1:A:1673:LEU:HD21	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1673:LEU:C	1:B:258:LYS:HE3	2.45	0.42
1:B:154:PRO:O	1:B:155:ALA:HB3	2.19	0.42
1:B:173:MET:HE3	1:B:173:MET:HB2	1.92	0.42
1:B:224:LEU:HD22	1:B:224:LEU:HA	1.72	0.42
1:B:388:VAL:HG12	1:B:420:PHE:CZ	2.54	0.42
1:B:415:ASP:CG	1:B:417:VAL:HB	2.44	0.42
1:B:534:MET:HB3	1:B:538:SER:OG	2.18	0.42
1:B:1053:MET:CE	1:B:1086:LEU:HD13	2.49	0.42
1:A:144:ARG:NH1	1:A:775:TRP:CE2	2.87	0.42
1:A:336:PHE:CE2	1:A:1480:PHE:CZ	3.08	0.42
1:A:515:ARG:HH11	1:A:515:ARG:HG3	1.84	0.42
1:B:104:LEU:O	1:B:114:SER:CB	2.67	0.42
1:B:123:ASN:CG	1:B:157:ARG:HH22	2.28	0.42
1:B:173:MET:C	1:B:174:VAL:HG12	2.44	0.42
1:B:229:VAL:HG21	1:B:329:VAL:HB	2.01	0.42
1:B:232:GLU:HA	1:B:233:PRO:HD3	1.75	0.42
1:B:388:VAL:HG12	1:B:420:PHE:HZ	1.84	0.42
1:B:599:TRP:CH2	1:B:779:LEU:HB2	2.54	0.42
1:B:820:PHE:HZ	1:B:848:TYR:HB2	1.83	0.42
1:B:950:TYR:HB3	1:B:1272:LYS:HD3	2.00	0.42
1:B:956:ARG:CG	1:B:1349:SER:HB3	2.50	0.42
1:B:977:LEU:HD12	1:B:1361:VAL:HG23	1.94	0.42
1:B:1008:ALA:CB	1:B:1068:VAL:O	2.68	0.42
1:A:51:ASP:OD1	1:A:72:HIS:HB2	2.20	0.42
1:A:113:LYS:NZ	1:A:656:ASN:HD21	2.18	0.42
1:A:171:VAL:HG12	1:A:171:VAL:O	2.19	0.42
1:A:477:LEU:O	1:A:530:VAL:HG11	2.19	0.42
1:A:577:PRO:HD2	1:A:588:VAL:CG2	2.45	0.42
1:A:653:PHE:CD2	1:A:653:PHE:N	2.87	0.42
1:A:689:LYS:HB3	1:A:689:LYS:HE2	1.66	0.42
1:A:1323:LEU:CD1	1:A:1324:HIS:N	2.62	0.42
1:A:1494:THR:HB	1:A:1506:THR:HG23	2.00	0.42
2:X:86:LEU:HG	2:X:91:LYS:HB2	2.00	0.42
1:B:23:TYR:HE1	1:B:656:ASN:H	1.67	0.42
1:B:85:LEU:HD22	1:B:85:LEU:N	2.29	0.42
1:B:165:ASP:C	1:B:165:ASP:OD1	2.59	0.42
1:B:336:PHE:CE2	1:B:1480:PHE:CZ	3.08	0.42
1:B:505:SER:O	1:B:506:LYS:HB2	2.18	0.42
1:B:626:PHE:C	1:B:628:GLU:H	2.28	0.42
1:B:689:LYS:HB3	1:B:689:LYS:HE2	1.66	0.42
1:A:137:PRO:HG3	1:A:196:TYR:OH	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:839:ILE:HD12	1:A:1485:VAL:HG12	2.01	0.42
1:A:847:ASN:O	1:A:848:TYR:HD1	2.03	0.42
1:A:884:VAL:HG12	1:A:1625:LEU:CB	2.48	0.42
1:B:33:VAL:HG23	1:B:120:THR:O	2.20	0.42
1:B:234:GLU:HB2	1:B:247:GLU:N	2.35	0.42
1:B:284:GLN:CD	1:B:310:LEU:HD13	2.44	0.42
1:B:405:ASP:HA	1:B:406:PRO:HD3	1.74	0.42
1:B:833:VAL:HG13	1:B:839:ILE:HD13	2.02	0.42
1:B:1044:LYS:O	1:B:1047:LYS:HB3	2.19	0.42
1:B:1049:LEU:HD23	1:B:1093:VAL:CG2	2.49	0.42
1:B:1412:ARG:O	1:B:1413:GLU:CB	2.68	0.42
2:Y:179:LEU:HD13	2:Y:228:ILE:HD11	2.02	0.42
1:A:292:LEU:HD11	1:A:295:GLY:CA	2.49	0.42
1:A:339:GLU:HB2	1:A:766:ARG:NH2	2.34	0.42
1:A:408:LYS:HE2	1:A:408:LYS:HB2	1.85	0.42
1:A:1433:SER:HB2	1:A:1480:PHE:HD1	1.80	0.42
1:A:1527:CYS:C	1:A:1529:GLU:N	2.76	0.42
2:X:42:ASP:OD1	2:X:43:ILE:N	2.53	0.42
2:X:169:ILE:HD13	2:X:169:ILE:HA	1.89	0.42
1:B:292:LEU:HD11	1:B:295:GLY:CA	2.50	0.42
1:B:481:HIS:CE1	1:B:529:PRO:HG3	2.55	0.42
1:B:489:LYS:O	1:B:490:SER:CB	2.67	0.42
1:B:496:ILE:HD12	1:B:496:ILE:H	1.83	0.42
1:B:499:TYR:HE2	1:B:517:LYS:HG2	1.84	0.42
1:B:506:LYS:HB2	1:B:506:LYS:HE2	1.56	0.42
1:B:668:PRO:O	1:B:669:CYS:C	2.63	0.42
1:B:1467:ILE:O	1:B:1468:PRO:C	2.63	0.42
1:A:284:GLN:CD	1:A:310:LEU:HD13	2.45	0.42
1:A:377:ASP:OD1	1:A:377:ASP:N	2.43	0.42
1:A:412:ARG:HD3	1:A:414:ASP:CG	2.44	0.42
1:A:460:LEU:C	1:A:462:GLN:N	2.77	0.42
1:A:641:ASN:O	1:A:645:VAL:HG23	2.19	0.42
1:A:715:ALA:O	1:A:718:ILE:HB	2.19	0.42
1:A:938:SER:C	1:A:940:SER:N	2.78	0.42
1:A:1255:LEU:HD13	1:A:1270:VAL:CG1	2.50	0.42
1:A:1608:ASN:O	1:A:1609:ALA:CB	2.67	0.42
1:A:1674:ASN:CA	1:B:258:LYS:NZ	2.72	0.42
2:X:84:LEU:HD13	2:X:118:THR:HG23	2.01	0.42
1:B:106:VAL:HG12	1:B:107:VAL:N	2.35	0.42
1:B:157:ARG:O	1:B:178:ASP:CB	2.67	0.42
1:B:333:THR:OG1	1:B:334:GLY:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:819:VAL:O	1:B:820:PHE:HB2	2.19	0.42
1:B:905:ILE:HD12	1:B:931:PRO:HG3	2.02	0.42
1:B:940:SER:HB2	1:B:959:PHE:CD1	2.49	0.42
1:B:1104:LEU:HD22	1:B:1152:ILE:HG23	2.02	0.42
2:Y:169:ILE:HD13	2:Y:169:ILE:HA	1.89	0.42
1:A:52:ALA:CB	1:A:73:LEU:HD21	2.50	0.42
1:A:296:ILE:HG22	1:A:297:ALA:N	2.34	0.42
1:A:515:ARG:HH21	2:X:147:ASP:CG	2.28	0.42
1:A:840:GLN:CG	1:A:899:THR:HG22	2.50	0.42
1:A:1143:TYR:CD1	1:A:1186:PHE:CE2	3.06	0.42
1:A:1159:CYS:O	1:A:1161:LEU:HB2	2.20	0.42
2:X:187:GLY:HA3	2:X:203:LEU:HD12	2.02	0.42
1:B:157:ARG:H	1:B:178:ASP:CB	2.30	0.42
1:B:160:VAL:CG2	1:B:175:GLU:CB	2.96	0.42
1:B:382:LEU:HD23	1:B:382:LEU:HA	1.64	0.42
1:B:390:LEU:CB	1:B:420:PHE:CE1	3.03	0.42
1:B:463:SER:OG	1:B:491:PRO:HG3	2.20	0.42
1:B:592:MET:HE2	1:B:592:MET:HB2	1.69	0.42
1:B:802:ILE:CD1	1:B:809:ILE:HG13	2.49	0.42
2:Y:47:HIS:HB2	2:Y:180:TYR:HB3	2.02	0.42
2:Y:150:ILE:O	2:Y:150:ILE:HG13	2.19	0.42
1:A:71:VAL:O	1:A:71:VAL:CG2	2.64	0.41
1:A:224:LEU:HA	1:A:225:PRO:HD3	1.77	0.41
1:A:404:LEU:HA	1:A:404:LEU:HD23	1.71	0.41
1:A:1346:LEU:HD12	1:A:1346:LEU:HA	1.83	0.41
1:A:1411:SER:N	1:A:1414:GLU:OE1	2.39	0.41
2:X:54:SER:HB2	2:X:167:PHE:CE1	2.55	0.41
1:B:371:ILE:HD13	1:B:371:ILE:HG21	1.81	0.41
1:B:485:ILE:O	1:B:485:ILE:HG22	2.16	0.41
1:B:886:GLN:HG3	1:B:887:LYS:N	2.27	0.41
1:B:922:ILE:HB	3:D:1:NAG:H82	2.02	0.41
1:B:942:VAL:HG22	1:B:957:LYS:HD3	2.02	0.41
2:Y:54:SER:HB2	2:Y:167:PHE:CE1	2.55	0.41
1:A:41:ILE:HG12	1:A:42:GLN:N	2.35	0.41
1:A:356:LEU:HD11	1:A:452:TYR:CD1	2.54	0.41
1:A:534:MET:HB3	1:A:538:SER:OG	2.20	0.41
1:A:905:ILE:C	1:A:907:LEU:H	2.27	0.41
1:A:1664:LEU:O	1:A:1668:ALA:HB2	2.20	0.41
2:X:77:PRO:HG3	2:X:82:HIS:HD2	1.83	0.41
1:B:175:GLU:H	1:B:175:GLU:HG2	1.60	0.41
1:B:515:ARG:HH21	2:Y:147:ASP:CG	2.27	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:587:THR:HA	1:B:789:ALA:CA	2.49	0.41
1:B:762:LYS:HA	1:B:763:PRO:HD3	1.95	0.41
1:B:1108:VAL:HG21	1:B:1167:ALA:CB	2.50	0.41
1:B:1135:VAL:O	1:B:1138:ARG:HB3	2.20	0.41
1:B:1159:CYS:O	1:B:1160:PRO:C	2.59	0.41
2:Y:84:LEU:HD13	2:Y:118:THR:HG23	2.01	0.41
2:Y:174:VAL:HA	2:Y:179:LEU:HB3	2.02	0.41
1:A:307:VAL:HG11	1:A:313:TYR:CB	2.43	0.41
1:A:627:LEU:HG	1:A:627:LEU:O	2.20	0.41
1:A:1027:THR:O	1:A:1027:THR:HG22	2.21	0.41
1:A:1197:LEU:CD2	1:A:1260:ASN:HD21	2.32	0.41
1:A:1582:LEU:HD21	1:A:1616:GLN:CD	2.45	0.41
2:X:134:THR:CG2	2:X:153:PHE:HB3	2.50	0.41
2:X:174:VAL:HA	2:X:179:LEU:HB3	2.01	0.41
1:B:144:ARG:HG2	1:B:775:TRP:CZ2	2.55	0.41
1:B:515:ARG:HG3	1:B:515:ARG:HH11	1.85	0.41
1:B:612:VAL:O	1:B:613:GLN:C	2.63	0.41
1:B:641:ASN:O	1:B:645:VAL:HG23	2.19	0.41
1:B:916:THR:O	1:B:917:TRP:C	2.63	0.41
1:B:1132:THR:O	1:B:1133:LEU:C	2.62	0.41
1:B:1189:ALA:HB1	1:B:1253:TYR:HB3	2.02	0.41
1:B:1195:LEU:O	1:B:1196:SER:C	2.62	0.41
1:B:1230:ASP:C	1:B:1231:ASN:O	2.63	0.41
1:B:1261:LEU:O	1:B:1263:ASP:N	2.53	0.41
1:B:1280:TYR:HD1	1:B:1362:THR:HG21	1.84	0.41
1:A:117:MET:HA	1:A:118:PRO:HD3	1.90	0.41
1:A:330:ILE:HG22	1:A:337:SER:OG	2.20	0.41
1:A:395:ILE:HG13	1:A:429:THR:OG1	2.21	0.41
1:A:486:VAL:HG21	1:A:526:ILE:HG13	2.00	0.41
1:A:505:SER:CB	1:A:510:ILE:HD11	2.48	0.41
1:A:643:ALA:O	1:A:646:PHE:N	2.53	0.41
1:A:931:PRO:C	1:A:932:GLU:OE1	2.63	0.41
1:A:1455:ILE:HG13	1:A:1460:VAL:HG22	2.01	0.41
2:X:58:SER:C	2:X:59:ASN:HD22	2.29	0.41
2:X:107:GLN:NE2	2:X:110:ILE:HD11	2.36	0.41
1:B:109:LYS:CD	1:B:110:HIS:HB2	2.51	0.41
1:B:113:LYS:NZ	1:B:656:ASN:HD21	2.18	0.41
1:B:224:LEU:HA	1:B:225:PRO:HD3	1.78	0.41
1:B:296:ILE:HG22	1:B:297:ALA:N	2.36	0.41
1:B:606:ASP:O	1:B:608:ALA:N	2.53	0.41
1:B:834:VAL:HB	1:B:837:GLU:CD	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:960:PRO:HA	1:B:1345:ASP:HA	2.03	0.41
1:B:1126:PRO:HD2	1:B:1127:ILE:H	1.84	0.41
2:Y:110:ILE:CG2	2:Y:111:ASP:N	2.83	0.41
1:A:86:THR:O	1:A:86:THR:CG2	2.68	0.41
1:A:153:LYS:CB	1:A:154:PRO:HD2	2.48	0.41
1:A:485:ILE:HD12	1:A:485:ILE:HA	1.74	0.41
1:A:602:LEU:N	1:A:602:LEU:HD23	2.36	0.41
1:A:626:PHE:C	1:A:628:GLU:H	2.29	0.41
1:A:1108:VAL:CG2	1:A:1167:ALA:CB	2.99	0.41
1:A:1323:LEU:CG	1:A:1324:HIS:N	2.83	0.41
2:X:58:SER:HA	2:X:101:GLN:O	2.20	0.41
1:B:196:TYR:HD1	1:B:219:VAL:HG12	1.85	0.41
1:B:356:LEU:CD1	1:B:452:TYR:CE1	3.04	0.41
1:B:949:ILE:HB	1:B:950:TYR:HD2	1.85	0.41
1:B:1124:TYR:HA	1:B:1465:ASN:OD1	2.20	0.41
1:B:1229:LYS:HB3	1:B:1231:ASN:OD1	2.21	0.41
1:B:1497:GLU:CD	1:B:1500:ARG:HD2	2.45	0.41
1:A:40:VAL:HB	1:A:512:PHE:CD1	2.55	0.41
1:A:77:ASN:C	1:A:79:PHE:N	2.79	0.41
1:A:388:VAL:HG12	1:A:420:PHE:HZ	1.86	0.41
1:A:656:ASN:HD22	1:A:656:ASN:HA	1.60	0.41
1:A:1034:PHE:CE1	1:A:1041:GLU:HG2	2.56	0.41
1:A:1054:LEU:O	1:A:1056:ILE:N	2.54	0.41
1:A:1188:LEU:HD23	1:A:1212:LEU:HA	2.01	0.41
2:X:136:LEU:HA	2:X:224:ILE:O	2.21	0.41
1:B:51:ASP:OD1	1:B:72:HIS:HB2	2.20	0.41
1:B:193:ASN:CG	1:B:193:ASN:O	2.62	0.41
1:B:227:PHE:O	1:B:338:GLU:HG2	2.20	0.41
1:B:791:PRO:HD2	1:B:797:TRP:HE1	1.84	0.41
1:B:1266:TYR:O	1:B:1269:PRO:HD2	2.20	0.41
1:B:1420:SER:O	1:B:1421:HIS:C	2.64	0.41
1:B:1435:ASN:HB2	1:B:1478:ARG:O	2.21	0.41
2:Y:134:THR:CG2	2:Y:153:PHE:HB3	2.50	0.41
1:A:37:GLU:OE1	1:A:37:GLU:HA	2.20	0.41
1:A:95:GLY:O	1:A:96:GLN:C	2.64	0.41
1:A:109:LYS:CD	1:A:110:HIS:HB2	2.51	0.41
1:A:234:GLU:CD	1:A:235:TYR:HE2	2.29	0.41
1:A:371:ILE:O	1:A:371:ILE:CG2	2.46	0.41
1:A:390:LEU:CB	1:A:420:PHE:CE1	3.04	0.41
1:A:442:LEU:HD22	1:A:443:PRO:HD2	2.02	0.41
1:A:1217:LEU:O	1:A:1226:ARG:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1261:LEU:O	1:A:1262:LYS:C	2.63	0.41
1:A:1516:ILE:HD12	1:A:1516:ILE:C	2.45	0.41
1:B:88:GLN:HB3	1:B:89:PRO:CD	2.50	0.41
1:B:163:PHE:CE2	1:B:201:ILE:HD11	2.55	0.41
1:B:715:ALA:O	1:B:718:ILE:HB	2.20	0.41
1:B:837:GLU:OE1	1:B:1430:THR:OG1	2.39	0.41
1:B:1034:PHE:CE1	1:B:1041:GLU:HG2	2.55	0.41
2:Y:102:ASN:O	2:Y:122:VAL:HA	2.21	0.41
1:A:193:ASN:O	1:A:193:ASN:CG	2.63	0.41
1:A:305:THR:O	1:A:307:VAL:N	2.53	0.41
1:A:317:ASP:HB3	1:A:318:LEU:H	1.69	0.41
1:A:335:GLY:C	1:A:336:PHE:O	2.64	0.41
1:A:379:LEU:HB3	1:A:381:GLN:HE22	1.84	0.41
1:A:541:LEU:HD21	1:A:646:PHE:CZ	2.56	0.41
1:A:820:PHE:HZ	1:A:848:TYR:HB2	1.85	0.41
1:A:839:ILE:HG23	1:A:900:VAL:HG23	1.97	0.41
1:A:1521:GLU:CD	1:A:1522:GLY:N	2.78	0.41
1:B:30:ILE:HG22	1:B:31:PHE:N	2.36	0.41
1:B:37:GLU:OE1	1:B:37:GLU:HA	2.21	0.41
1:B:56:ILE:O	1:B:65:SER:HA	2.20	0.41
1:B:190:ILE:H	1:B:190:ILE:HG12	1.58	0.41
1:B:249:THR:HG23	1:B:298:GLN:HG3	2.01	0.41
1:B:442:LEU:HD22	1:B:443:PRO:HD2	2.03	0.41
1:B:447:GLN:OE1	1:B:447:GLN:HA	2.20	0.41
1:B:504:LEU:HA	1:B:509:ILE:HA	2.02	0.41
1:B:587:THR:HA	1:B:789:ALA:HB2	2.01	0.41
1:B:628:GLU:C	1:B:629:LYS:HD3	2.45	0.41
1:B:1180:LEU:O	1:B:1182:ALA:N	2.53	0.41
2:Y:58:SER:HA	2:Y:101:GLN:O	2.21	0.41
2:Y:104:PHE:CG	2:Y:164:GLU:HB2	2.55	0.41
1:A:46:TYR:HB2	1:A:47:THR:H	1.77	0.41
1:A:56:ILE:HD11	1:A:66:TYR:HB2	2.02	0.41
1:A:125:PHE:CE1	1:A:152:LEU:HD11	2.56	0.41
1:A:249:THR:HG23	1:A:298:GLN:HG3	2.03	0.41
1:A:286:ALA:O	1:A:287:MET:C	2.64	0.41
1:A:333:THR:OG1	1:A:334:GLY:N	2.53	0.41
1:A:371:ILE:HD13	1:A:371:ILE:HG21	1.86	0.41
1:A:485:ILE:O	1:A:485:ILE:HG22	2.18	0.41
1:A:587:THR:HA	1:A:789:ALA:HB2	2.03	0.41
1:A:599:TRP:CH2	1:A:779:LEU:HB2	2.56	0.41
1:A:707:ASN:CB	1:A:739:ARG:HH22	2.27	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:885:ARG:HH12	1:A:1628:LYS:HD3	1.83	0.41
1:A:936:ARG:CZ	1:A:1002:HIS:CE1	3.04	0.41
1:A:960:PRO:HA	1:A:1345:ASP:HA	2.03	0.41
1:A:963:ILE:HA	1:A:964:PRO:HD3	1.76	0.41
1:A:981:GLY:HA3	1:A:1309:LEU:CD1	2.51	0.41
1:A:1180:LEU:HD23	1:A:1180:LEU:HA	1.69	0.41
1:A:1202:HIS:HA	1:A:1203:PRO:HD3	1.87	0.41
1:A:1273:TRP:CZ3	1:A:1274:LEU:HD23	2.56	0.41
1:A:1531:ASP:O	1:A:1532:CYS:O	2.39	0.41
1:A:1561:TYR:O	1:A:1561:TYR:CD2	2.72	0.41
1:A:1625:LEU:O	1:A:1635:TYR:O	2.38	0.41
2:X:47:HIS:HB2	2:X:180:TYR:HB3	2.01	0.41
1:B:160:VAL:HG23	1:B:175:GLU:CB	2.34	0.41
1:B:172:ASP:OD2	1:B:173:MET:N	2.42	0.41
1:B:182:ILE:HG12	1:B:804:ILE:HD11	2.01	0.41
1:B:291:MET:HE3	1:B:291:MET:HB2	1.90	0.41
1:B:298:GLN:O	1:B:299:VAL:HG13	2.20	0.41
1:B:412:ARG:HG2	1:B:413:VAL:H	1.86	0.41
1:B:494:ASP:C	1:B:496:ILE:H	2.29	0.41
1:B:576:SER:HB2	1:B:577:PRO:HD3	2.03	0.41
1:B:583:SER:O	1:B:585:GLY:N	2.51	0.41
1:B:833:VAL:O	1:B:929:VAL:HA	2.21	0.41
1:B:949:ILE:H	1:B:949:ILE:HG12	1.58	0.41
1:B:1132:THR:CB	1:B:1134:PRO:HD2	2.43	0.41
1:B:1271:ILE:HD12	1:B:1271:ILE:O	2.20	0.41
1:B:1274:LEU:C	1:B:1276:GLU:N	2.72	0.41
2:Y:42:ASP:OD1	2:Y:43:ILE:N	2.53	0.41
2:Y:185:LYS:HD2	2:Y:186:TYR:CZ	2.56	0.41
2:Y:187:GLY:HA3	2:Y:203:LEU:HD12	2.02	0.41
1:A:231:ILE:HG12	1:A:342:ILE:HD11	2.02	0.41
1:A:250:ILE:HG21	1:A:250:ILE:HD13	1.81	0.41
1:A:494:ASP:C	1:A:496:ILE:H	2.28	0.41
1:A:1124:TYR:HA	1:A:1465:ASN:OD1	2.21	0.41
1:B:191:PRO:O	1:B:194:PRO:HG3	2.20	0.41
1:B:250:ILE:HD13	1:B:250:ILE:HG21	1.81	0.41
1:B:360:PRO:HA	1:B:636:ALA:HB3	2.03	0.41
1:B:1115:ASN:ND2	1:B:1115:ASN:C	2.79	0.41
2:Y:64:VAL:HG11	2:Y:95:LYS:O	2.21	0.41
1:A:51:ASP:OD1	1:A:72:HIS:ND1	2.54	0.40
1:A:56:ILE:O	1:A:65:SER:HA	2.21	0.40
1:A:127:PHE:HB2	1:A:146:TYR:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:157:ARG:HD2	1:A:205:TYR:CE2	2.55	0.40
1:A:226:HIS:CD2	1:A:336:PHE:CD2	3.08	0.40
1:A:227:PHE:O	1:A:338:GLU:HG2	2.21	0.40
1:A:386:VAL:C	1:A:410:VAL:HG13	2.46	0.40
1:A:439:ALA:HA	1:A:440:PRO:HD3	1.80	0.40
1:A:489:LYS:O	1:A:490:SER:CB	2.68	0.40
1:A:668:PRO:O	1:A:669:CYS:C	2.63	0.40
1:A:733:VAL:HG13	1:A:737:GLN:NE2	2.36	0.40
1:A:802:ILE:HD11	1:A:804:ILE:HG23	2.03	0.40
1:A:916:THR:O	1:A:917:TRP:C	2.64	0.40
1:A:1218:VAL:HA	1:A:1225:TYR:O	2.20	0.40
2:X:102:ASN:O	2:X:122:VAL:HA	2.21	0.40
1:B:138:ASP:HA	1:B:190:ILE:O	2.21	0.40
1:B:231:ILE:HG12	1:B:342:ILE:HD11	2.04	0.40
1:B:272:ARG:HG2	1:B:274:ASP:O	2.20	0.40
1:B:1053:MET:HE3	1:B:1086:LEU:HD22	2.01	0.40
1:A:147:SER:C	1:A:148:LEU:CD1	2.94	0.40
1:A:237:PHE:HE1	1:A:378:SER:O	2.03	0.40
1:A:661:ASP:OD2	1:A:663:GLN:NE2	2.54	0.40
1:A:754:MET:HB2	1:A:754:MET:HE2	1.80	0.40
1:A:944:LEU:HD23	1:A:944:LEU:HA	1.56	0.40
1:A:1104:LEU:HD22	1:A:1152:ILE:HG23	2.02	0.40
1:A:1147:PHE:C	1:A:1147:PHE:HD2	2.29	0.40
1:A:1543:ILE:O	1:A:1543:ILE:HG22	2.22	0.40
1:B:40:VAL:HB	1:B:512:PHE:CD1	2.56	0.40
1:B:77:ASN:C	1:B:79:PHE:N	2.78	0.40
1:B:234:GLU:CD	1:B:235:TYR:HE2	2.29	0.40
1:B:251:LYS:CG	1:B:296:ILE:HD13	2.50	0.40
1:B:309:GLU:O	1:B:309:GLU:HG3	2.22	0.40
1:B:505:SER:CB	1:B:510:ILE:HD11	2.49	0.40
1:B:576:SER:OG	1:B:589:SER:HB2	2.20	0.40
1:B:592:MET:CB	1:B:780:VAL:HG21	2.51	0.40
1:B:620:LEU:HD13	1:B:811:VAL:HB	2.03	0.40
1:B:935:LYS:HD2	1:B:935:LYS:HA	1.63	0.40
1:B:942:VAL:CG2	1:B:957:LYS:HB3	2.50	0.40
1:B:991:VAL:HG21	1:B:1017:PRO:C	2.46	0.40
1:B:1169:ILE:O	1:B:1170:LYS:C	2.64	0.40
1:B:1278:GLN:O	1:B:1360:HIS:NE2	2.54	0.40
1:B:1296:GLY:O	1:B:1297:LEU:C	2.63	0.40
1:B:1432:ILE:HG22	1:B:1432:ILE:O	2.21	0.40
2:Y:139:ASN:CA	2:Y:146:LEU:HD21	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:TYR:CD1	1:A:90:LYS:HG3	2.54	0.40
1:A:357:VAL:O	1:A:357:VAL:HG12	2.20	0.40
1:A:580:ASP:OD1	1:A:580:ASP:C	2.62	0.40
1:A:628:GLU:C	1:A:629:LYS:HD3	2.46	0.40
1:A:950:TYR:HB3	1:A:1272:LYS:HD3	2.02	0.40
1:A:1139:GLU:CD	1:A:1183:GLN:HB3	2.47	0.40
2:X:194:LYS:O	2:X:196:GLU:N	2.54	0.40
1:B:681:LYS:H	1:B:681:LYS:HG3	1.70	0.40
1:B:1421:HIS:CE1	1:B:1498:TYR:CD2	3.10	0.40
1:B:1497:GLU:OE1	1:B:1500:ARG:HD2	2.21	0.40
2:Y:194:LYS:O	2:Y:196:GLU:N	2.54	0.40
2:Y:228:ILE:O	2:Y:228:ILE:HG22	2.21	0.40
1:A:50:PHE:HB3	1:A:109:LYS:HE2	2.00	0.40
1:A:124:GLY:HA3	1:A:148:LEU:O	2.22	0.40
1:A:277:ASP:OD2	1:A:279:GLN:O	2.40	0.40
1:A:309:GLU:O	1:A:309:GLU:HG3	2.21	0.40
1:A:441:ASP:OD2	1:A:441:ASP:N	2.43	0.40
1:A:568:GLY:HA3	1:A:807:THR:HB	2.02	0.40
1:A:576:SER:OG	1:A:589:SER:HB2	2.21	0.40
1:A:896:VAL:C	1:A:897:THR:HG22	2.45	0.40
1:A:1332:ASN:O	1:A:1332:ASN:OD1	2.38	0.40
1:B:185:PHE:HB3	1:B:186:PRO:HD3	1.99	0.40
1:B:264:ASP:HB3	1:B:330:ILE:CG1	2.51	0.40
1:B:339:GLU:HB2	1:B:766:ARG:NH2	2.36	0.40
1:B:379:LEU:HB3	1:B:381:GLN:HE22	1.85	0.40
1:B:580:ASP:OD1	1:B:580:ASP:C	2.63	0.40
1:B:668:PRO:O	1:B:669:CYS:O	2.40	0.40
1:B:774:LEU:HD11	1:B:788:PHE:CE2	2.56	0.40
1:B:834:VAL:CG1	1:B:835:ARG:N	2.85	0.40
1:B:882:LYS:HG3	1:B:884:VAL:HG13	2.04	0.40
1:B:1136:GLU:OE1	1:B:1415:SER:HB3	2.22	0.40
1:B:1188:LEU:HD23	1:B:1212:LEU:HA	2.03	0.40
1:B:1503:LYS:HD2	1:B:1503:LYS:N	2.37	0.40
1:A:193:ASN:CG	1:A:1070:LYS:HE2	2.46	0.40
1:A:220:LYS:HG2	1:A:763:PRO:CB	2.51	0.40
1:A:478:VAL:O	1:A:478:VAL:CG1	2.62	0.40
1:A:614:ARG:NH1	1:A:798:GLU:OE1	2.55	0.40
1:A:840:GLN:NE2	1:A:1484:GLU:OE1	2.54	0.40
1:A:846:TYR:HD2	1:A:893:SER:HB2	1.87	0.40
1:A:1372:GLU:HG3	1:A:1373:GLU:N	2.34	0.40
2:X:189:ILE:HD12	2:X:201:ILE:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:54:ILE:CG2	1:B:55:SER:N	2.84	0.40
1:B:284:GLN:HG2	1:B:310:LEU:HD13	2.04	0.40
1:B:1053:MET:HE1	1:B:1086:LEU:HD22	2.03	0.40
1:B:1126:PRO:HD2	1:B:1127:ILE:HD12	2.03	0.40
1:B:1313:ILE:HG22	1:B:1314:ASP:N	2.37	0.40
2:Y:75:PHE:O	2:Y:77:PRO:CD	2.69	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:955:ARG:NH2	1:B:434:ASN:OD1[3_454]	2.19	0.01

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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	1612/1676 (96%)	1199 (74%)	273 (17%)	140 (9%)	0	7
1	B	1468/1676 (88%)	1126 (77%)	224 (15%)	118 (8%)	1	8
2	X	189/231 (82%)	150 (79%)	28 (15%)	11 (6%)	1	13
2	Y	189/231 (82%)	150 (79%)	29 (15%)	10 (5%)	1	14
All	All	3458/3814 (91%)	2625 (76%)	554 (16%)	279 (8%)	1	8

All (279) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	46	TYR
1	A	59	TYR
1	A	97	ASN
1	A	209	PHE

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Mol	Chain	Res	Type
1	A	243	PHE
1	A	282	MET
1	A	289	ASN
1	A	308	LYS
1	A	318	LEU
1	A	319	ASN
1	A	336	PHE
1	A	378	SER
1	A	426	SER
1	A	489	LYS
1	A	490	SER
1	A	520	ASP
1	A	657	ALA
1	A	664	GLU
1	A	669	CYS
1	A	704	CYS
1	A	705	VAL
1	A	931	PRO
1	A	1196	SER
1	A	1231	ASN
1	A	1262	LYS
1	A	1275	SER
1	A	1284	PHE
1	A	1352	PHE
1	A	1373	GLU
1	A	1468	PRO
1	A	1481	GLU
1	A	1487	PHE
1	A	1516	ILE
1	A	1531	ASP
1	A	1532	CYS
1	A	1573	VAL
1	A	1592	ALA
1	A	1604	VAL
1	A	1631	PHE
1	A	1636	ILE
1	A	1653	THR
1	A	1655	SER
1	A	1658	GLN
2	X	41	HIS
2	X	78	LYS
2	X	100	GLY

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Mol	Chain	Res	Type
1	B	46	TYR
1	B	59	TYR
1	B	97	ASN
1	B	150	ASP
1	B	209	PHE
1	B	243	PHE
1	B	282	MET
1	B	289	ASN
1	B	308	LYS
1	B	318	LEU
1	B	319	ASN
1	B	336	PHE
1	B	378	SER
1	B	404	LEU
1	B	426	SER
1	B	489	LYS
1	B	490	SER
1	B	520	ASP
1	B	657	ALA
1	B	664	GLU
1	B	669	CYS
1	B	704	CYS
1	B	705	VAL
1	B	931	PRO
1	B	1196	SER
1	B	1231	ASN
1	B	1262	LYS
1	B	1284	PHE
1	B	1352	PHE
1	B	1373	GLU
1	B	1468	PRO
1	B	1481	GLU
2	Y	41	HIS
2	Y	78	LYS
2	Y	100	GLY
1	A	49	ALA
1	A	86	THR
1	A	99	VAL
1	A	207	GLU
1	A	291	MET
1	A	306	ALA
1	A	317	ASP

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Mol	Chain	Res	Type
1	A	404	LEU
1	A	457	TYR
1	A	522	SER
1	A	611	GLY
1	A	613	GLN
1	A	619	PRO
1	A	633	GLY
1	A	638	GLY
1	A	691	LYS
1	A	692	HIS
1	A	720	LEU
1	A	856	CYS
1	A	939	TYR
1	A	948	GLY
1	A	949	ILE
1	A	996	GLY
1	A	1029	ASN
1	A	1233	GLN
1	A	1240	PRO
1	A	1264	ILE
1	A	1283	GLY
1	A	1335	GLY
1	A	1432	ILE
1	A	1595	ASP
1	A	1609	ALA
1	A	1633	PHE
1	A	1639	LEU
1	A	1652	THR
2	X	42	ASP
2	X	72	VAL
2	X	136	LEU
2	X	185	LYS
1	B	49	ALA
1	B	86	THR
1	B	99	VAL
1	B	207	GLU
1	B	291	MET
1	B	306	ALA
1	B	317	ASP
1	B	457	TYR
1	B	522	SER
1	B	611	GLY

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Mol	Chain	Res	Type
1	B	613	GLN
1	B	619	PRO
1	B	633	GLY
1	B	638	GLY
1	B	691	LYS
1	B	692	HIS
1	B	720	LEU
1	B	856	CYS
1	B	939	TYR
1	B	948	GLY
1	B	949	ILE
1	B	996	GLY
1	B	1029	ASN
1	B	1233	GLN
1	B	1240	PRO
1	B	1264	ILE
1	B	1275	SER
1	B	1283	GLY
1	B	1335	GLY
1	B	1432	ILE
1	B	1487	PHE
1	B	1527	CYS
2	Y	42	ASP
2	Y	72	VAL
2	Y	136	LEU
2	Y	185	LYS
1	A	372	LYS
1	A	491	PRO
1	A	607	SER
1	A	617	LYS
1	A	627	LEU
1	A	643	ALA
1	A	661	ASP
1	A	663	GLN
1	A	722	PRO
1	A	792	ASP
1	A	814	THR
1	A	1055	SER
1	A	1263	ASP
1	A	1286	SER
1	A	1297	LEU
1	A	1308	ARG

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Mol	Chain	Res	Type
1	A	1520	CYS
1	A	1523	ALA
1	A	1543	ILE
1	A	1650	ARG
2	X	125	LYS
1	B	78	LYS
1	B	491	PRO
1	B	607	SER
1	B	617	LYS
1	B	627	LEU
1	B	663	GLN
1	B	792	ASP
1	B	814	THR
1	B	1055	SER
1	B	1126	PRO
1	B	1235	LYS
1	B	1263	ASP
1	B	1286	SER
1	B	1308	ARG
1	B	1531	ASP
2	Y	125	LYS
1	A	78	LYS
1	A	287	MET
1	A	610	TYR
1	A	759	PRO
1	A	794	LEU
1	A	1126	PRO
1	A	1235	LYS
1	A	1622	LYS
2	X	104	PHE
1	B	287	MET
1	B	610	TYR
1	B	643	ALA
1	B	647	HIS
1	B	648	LEU
1	B	661	ASP
1	B	722	PRO
1	B	759	PRO
1	B	794	LEU
1	B	820	PHE
1	B	1297	LEU
1	B	1349	SER

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Mol	Chain	Res	Type
1	B	1525	CYS
2	Y	104	PHE
1	A	101	TYR
1	A	154	PRO
1	A	284	GLN
1	A	640	LEU
1	A	648	LEU
1	A	760	VAL
1	A	820	PHE
1	A	863	GLU
1	A	909	ASN
1	A	960	PRO
1	A	1114	ASP
1	A	1239	VAL
1	A	1321	GLY
1	A	1349	SER
1	A	1501	PRO
1	A	1526	LYS
1	A	1632	SER
1	A	1656	SER
1	A	1667	PHE
2	X	67	TYR
2	X	124	LYS
1	B	101	TYR
1	B	154	PRO
1	B	372	LYS
1	B	640	LEU
1	B	760	VAL
1	B	765	ILE
1	B	909	ASN
1	B	960	PRO
1	B	1114	ASP
1	B	1239	VAL
1	B	1524	ALA
2	Y	124	LYS
1	A	730	GLU
1	A	765	ILE
1	A	1310	SER
1	B	137	PRO
1	B	284	GLN
1	B	1310	SER
1	B	1501	PRO

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Mol	Chain	Res	Type
1	A	137	PRO
1	A	686	ILE
1	B	171	VAL
1	B	686	ILE
1	B	1321	GLY
1	A	133	PRO
1	A	171	VAL
1	A	668	PRO
1	A	1134	PRO
1	A	1519	VAL
1	B	133	PRO
1	B	668	PRO
1	B	1134	PRO
1	A	1638	PRO
1	B	166	PRO
1	B	1068	VAL
1	A	166	PRO
1	A	609	VAL
1	B	1519	VAL
1	A	801	GLY
1	A	1675	GLY
1	B	801	GLY
1	B	1296	GLY

### 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	1438/1484 (97%)	1130 (79%)	308 (21%)	1	7
1	B	1311/1484 (88%)	1017 (78%)	294 (22%)	1	6
2	X	175/205 (85%)	155 (89%)	20 (11%)	5	26
2	Y	175/205 (85%)	155 (89%)	20 (11%)	5	26
All	All	3099/3378 (92%)	2457 (79%)	642 (21%)	1	7

All (642) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	22	THR
1	A	23	TYR
1	A	36	SER
1	A	40	VAL
1	A	41	ILE
1	A	42	GLN
1	A	53	THR
1	A	55	SER
1	A	56	ILE
1	A	59	TYR
1	A	65	SER
1	A	73	LEU
1	A	82	SER
1	A	86	THR
1	A	88	GLN
1	A	100	SER
1	A	109	LYS
1	A	114	SER
1	A	116	ARG
1	A	122	ASP
1	A	123	ASN
1	A	126	LEU
1	A	128	ILE
1	A	130	THR
1	A	136	THR
1	A	140	SER
1	A	143	VAL
1	A	148	LEU
1	A	160	VAL
1	A	161	LEU
1	A	162	THR
1	A	163	PHE
1	A	174	VAL
1	A	175	GLU
1	A	176	GLU
1	A	177	ILE
1	A	184	SER
1	A	190	ILE
1	A	195	ARG
1	A	208	ASP
1	A	216	TYR
1	A	219	VAL
1	A	224	LEU

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Mol	Chain	Res	Type
1	A	231	ILE
1	A	235	TYR
1	A	237	PHE
1	A	238	ILE
1	A	242	ASN
1	A	247	GLU
1	A	249	THR
1	A	259	VAL
1	A	280	LYS
1	A	289	ASN
1	A	290	THR
1	A	292	LEU
1	A	296	ILE
1	A	299	VAL
1	A	310	LEU
1	A	321	LYS
1	A	325	ILE
1	A	333	THR
1	A	349	LEU
1	A	353	LYS
1	A	354	LEU
1	A	363	LEU
1	A	364	LYS
1	A	372	LYS
1	A	373	VAL
1	A	378	SER
1	A	381	GLN
1	A	383	VAL
1	A	386	VAL
1	A	388	VAL
1	A	389	THR
1	A	394	THR
1	A	395	ILE
1	A	407	SER
1	A	419	SER
1	A	421	VAL
1	A	422	LEU
1	A	423	ASN
1	A	426	SER
1	A	431	LEU
1	A	435	VAL
1	A	436	LYS

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Mol	Chain	Res	Type
1	A	438	ASP
1	A	444	GLU
1	A	458	SER
1	A	460	LEU
1	A	472	ASN
1	A	473	HIS
1	A	478	VAL
1	A	484	ILE
1	A	485	ILE
1	A	486	VAL
1	A	492	TYR
1	A	493	ILE
1	A	495	LYS
1	A	500	ASN
1	A	504	LEU
1	A	510	ILE
1	A	514	THR
1	A	517	LYS
1	A	530	VAL
1	A	535	VAL
1	A	540	LEU
1	A	541	LEU
1	A	542	VAL
1	A	544	TYR
1	A	546	VAL
1	A	553	GLU
1	A	554	LEU
1	A	563	ILE
1	A	571	LEU
1	A	573	VAL
1	A	576	SER
1	A	589	SER
1	A	592	MET
1	A	594	THR
1	A	610	TYR
1	A	623	VAL
1	A	627	LEU
1	A	640	LEU
1	A	644	ASN
1	A	652	THR
1	A	654	LEU
1	A	661	ASP

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Mol	Chain	Res	Type
1	A	667	GLU
1	A	673	LEU
1	A	705	VAL
1	A	707	ASN
1	A	711	CYS
1	A	729	THR
1	A	737	GLN
1	A	753	HIS
1	A	754	MET
1	A	758	LEU
1	A	776	GLU
1	A	786	LEU
1	A	790	LEU
1	A	795	THR
1	A	799	ILE
1	A	802	ILE
1	A	809	ILE
1	A	814	THR
1	A	833	VAL
1	A	835	ARG
1	A	837	GLU
1	A	840	GLN
1	A	844	THR
1	A	859	MET
1	A	860	SER
1	A	863	GLU
1	A	867	THR
1	A	887	LYS
1	A	888	VAL
1	A	895	LEU
1	A	897	THR
1	A	900	VAL
1	A	901	LEU
1	A	903	LEU
1	A	905	ILE
1	A	908	HIS
1	A	914	LEU
1	A	922	ILE
1	A	923	LEU
1	A	924	VAL
1	A	926	THR
1	A	927	LEU

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Mol	Chain	Res	Type
1	A	935	LYS
1	A	936	ARG
1	A	947	ARG
1	A	952	THR
1	A	953	ILE
1	A	954	SER
1	A	959	PHE
1	A	971	THR
1	A	972	GLU
1	A	976	ILE
1	A	977	LEU
1	A	980	LYS
1	A	982	LEU
1	A	983	LEU
1	A	984	VAL
1	A	986	GLU
1	A	987	ILE
1	A	994	GLN
1	A	997	ILE
1	A	1001	THR
1	A	1003	LEU
1	A	1011	GLU
1	A	1027	THR
1	A	1029	ASN
1	A	1040	ILE
1	A	1043	GLN
1	A	1056	ILE
1	A	1058	SER
1	A	1067	SER
1	A	1069	TRP
1	A	1073	SER
1	A	1075	SER
1	A	1076	THR
1	A	1078	LEU
1	A	1084	ARG
1	A	1096	ASN
1	A	1108	VAL
1	A	1115	ASN
1	A	1119	LYS
1	A	1127	ILE
1	A	1128	LYS
1	A	1132	THR

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Mol	Chain	Res	Type
1	A	1142	LEU
1	A	1148	THR
1	A	1150	ILE
1	A	1158	ILE
1	A	1161	LEU
1	A	1162	VAL
1	A	1164	ILE
1	A	1169	ILE
1	A	1173	ASN
1	A	1184	SER
1	A	1200	LYS
1	A	1208	ILE
1	A	1217	LEU
1	A	1218	VAL
1	A	1219	LYS
1	A	1228	TRP
1	A	1231	ASN
1	A	1232	LEU
1	A	1244	THR
1	A	1251	THR
1	A	1262	LYS
1	A	1267	VAL
1	A	1270	VAL
1	A	1271	ILE
1	A	1275	SER
1	A	1278	GLN
1	A	1287	THR
1	A	1291	ILE
1	A	1294	ILE
1	A	1297	LEU
1	A	1298	THR
1	A	1301	SER
1	A	1303	LEU
1	A	1307	LEU
1	A	1308	ARG
1	A	1313	ILE
1	A	1314	ASP
1	A	1323	LEU
1	A	1334	LEU
1	A	1338	VAL
1	A	1341	LEU
1	A	1345	ASP

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Mol	Chain	Res	Type
1	A	1347	ILE
1	A	1361	VAL
1	A	1363	THR
1	A	1365	VAL
1	A	1376	SER
1	A	1381	ILE
1	A	1383	THR
1	A	1401	ARG
1	A	1421	HIS
1	A	1423	VAL
1	A	1424	MET
1	A	1426	ILE
1	A	1430	THR
1	A	1443	VAL
1	A	1464	LEU
1	A	1465	ASN
1	A	1476	ARG
1	A	1480	PHE
1	A	1483	PHE
1	A	1487	PHE
1	A	1488	LEU
1	A	1489	SER
1	A	1492	THR
1	A	1494	THR
1	A	1495	VAL
1	A	1496	TYR
1	A	1500	ARG
1	A	1502	ASP
1	A	1507	MET
1	A	1509	TYR
1	A	1513	ASN
1	A	1518	LYS
1	A	1521	GLU
1	A	1535	MET
1	A	1544	SER
1	A	1548	ARG
1	A	1553	CYS
1	A	1556	GLU
1	A	1561	TYR
1	A	1562	LYS
1	A	1569	THR
1	A	1578	LYS

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Mol	Chain	Res	Type
1	A	1581	LEU
1	A	1602	LYS
1	A	1607	THR
1	A	1619	ILE
1	A	1622	LYS
1	A	1627	ILE
1	A	1629	TYR
1	A	1633	PHE
1	A	1636	ILE
1	A	1642	LEU
1	A	1645	ILE
1	A	1653	THR
1	A	1673	LEU
2	X	65	GLU
2	X	66	ASN
2	X	67	TYR
2	X	72	VAL
2	X	73	VAL
2	X	80	GLN
2	X	91	LYS
2	X	105	VAL
2	X	113	ASN
2	X	123	THR
2	X	136	LEU
2	X	137	PHE
2	X	138	VAL
2	X	146	LEU
2	X	150	ILE
2	X	183	THR
2	X	190	ILE
2	X	210	GLU
2	X	225	SER
2	X	228	ILE
1	B	22	THR
1	B	23	TYR
1	B	36	SER
1	B	40	VAL
1	B	41	ILE
1	B	42	GLN
1	B	53	THR
1	B	55	SER
1	B	56	ILE

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Mol	Chain	Res	Type
1	B	59	TYR
1	B	65	SER
1	B	73	LEU
1	B	82	SER
1	B	86	THR
1	B	88	GLN
1	B	100	SER
1	B	109	LYS
1	B	114	SER
1	B	116	ARG
1	B	122	ASP
1	B	123	ASN
1	B	126	LEU
1	B	128	ILE
1	B	130	THR
1	B	136	THR
1	B	140	SER
1	B	143	VAL
1	B	148	LEU
1	B	152	LEU
1	B	160	VAL
1	B	161	LEU
1	B	162	THR
1	B	174	VAL
1	B	175	GLU
1	B	176	GLU
1	B	184	SER
1	B	190	ILE
1	B	195	ARG
1	B	208	ASP
1	B	216	TYR
1	B	219	VAL
1	B	224	LEU
1	B	231	ILE
1	B	235	TYR
1	B	237	PHE
1	B	238	ILE
1	B	242	ASN
1	B	247	GLU
1	B	249	THR
1	B	259	VAL
1	B	285	THR

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Mol	Chain	Res	Type
1	B	289	ASN
1	B	290	THR
1	B	292	LEU
1	B	296	ILE
1	B	299	VAL
1	B	310	LEU
1	B	321	LYS
1	B	325	ILE
1	B	333	THR
1	B	349	LEU
1	B	353	LYS
1	B	354	LEU
1	B	363	LEU
1	B	364	LYS
1	B	372	LYS
1	B	373	VAL
1	B	378	SER
1	B	381	GLN
1	B	383	VAL
1	B	386	VAL
1	B	388	VAL
1	B	389	THR
1	B	394	THR
1	B	395	ILE
1	B	407	SER
1	B	419	SER
1	B	420	PHE
1	B	421	VAL
1	B	422	LEU
1	B	423	ASN
1	B	426	SER
1	B	431	LEU
1	B	435	VAL
1	B	436	LYS
1	B	438	ASP
1	B	458	SER
1	B	460	LEU
1	B	472	ASN
1	B	473	HIS
1	B	478	VAL
1	B	484	ILE
1	B	485	ILE

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Mol	Chain	Res	Type
1	B	486	VAL
1	B	492	TYR
1	B	493	ILE
1	B	495	LYS
1	B	504	LEU
1	B	510	ILE
1	B	512	PHE
1	B	514	THR
1	B	530	VAL
1	B	535	VAL
1	B	540	LEU
1	B	541	LEU
1	B	544	TYR
1	B	546	VAL
1	B	553	GLU
1	B	554	LEU
1	B	563	ILE
1	B	571	LEU
1	B	573	VAL
1	B	576	SER
1	B	589	SER
1	B	592	MET
1	B	594	THR
1	B	610	TYR
1	B	623	VAL
1	B	624	PHE
1	B	627	LEU
1	B	640	LEU
1	B	644	ASN
1	B	652	THR
1	B	654	LEU
1	B	661	ASP
1	B	667	GLU
1	B	673	LEU
1	B	705	VAL
1	B	707	ASN
1	B	711	CYS
1	B	729	THR
1	B	737	GLN
1	B	753	HIS
1	B	754	MET
1	B	758	LEU

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Mol	Chain	Res	Type
1	B	776	GLU
1	B	786	LEU
1	B	790	LEU
1	B	795	THR
1	B	799	ILE
1	B	802	ILE
1	B	809	ILE
1	B	814	THR
1	B	833	VAL
1	B	835	ARG
1	B	837	GLU
1	B	840	GLN
1	B	844	THR
1	B	859	MET
1	B	860	SER
1	B	863	GLU
1	B	867	THR
1	B	887	LYS
1	B	888	VAL
1	B	894	HIS
1	B	895	LEU
1	B	897	THR
1	B	900	VAL
1	B	901	LEU
1	B	903	LEU
1	B	905	ILE
1	B	908	HIS
1	B	914	LEU
1	B	922	ILE
1	B	923	LEU
1	B	924	VAL
1	B	926	THR
1	B	927	LEU
1	B	928	ARG
1	B	935	LYS
1	B	936	ARG
1	B	947	ARG
1	B	952	THR
1	B	953	ILE
1	B	954	SER
1	B	959	PHE
1	B	971	THR

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Mol	Chain	Res	Type
1	B	972	GLU
1	B	976	ILE
1	B	977	LEU
1	B	980	LYS
1	B	982	LEU
1	B	983	LEU
1	B	984	VAL
1	B	986	GLU
1	B	987	ILE
1	B	994	GLN
1	B	997	ILE
1	B	1001	THR
1	B	1003	LEU
1	B	1011	GLU
1	B	1024	TYR
1	B	1027	THR
1	B	1029	ASN
1	B	1040	ILE
1	B	1043	GLN
1	B	1056	ILE
1	B	1058	SER
1	B	1067	SER
1	B	1069	TRP
1	B	1073	SER
1	B	1075	SER
1	B	1076	THR
1	B	1078	LEU
1	B	1084	ARG
1	B	1096	ASN
1	B	1108	VAL
1	B	1115	ASN
1	B	1119	LYS
1	B	1127	ILE
1	B	1128	LYS
1	B	1132	THR
1	B	1142	LEU
1	B	1148	THR
1	B	1150	ILE
1	B	1158	ILE
1	B	1161	LEU
1	B	1162	VAL
1	B	1164	ILE

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Mol	Chain	Res	Type
1	B	1169	ILE
1	B	1173	ASN
1	B	1178	ASN
1	B	1184	SER
1	B	1200	LYS
1	B	1208	ILE
1	B	1217	LEU
1	B	1218	VAL
1	B	1219	LYS
1	B	1228	TRP
1	B	1231	ASN
1	B	1232	LEU
1	B	1244	THR
1	B	1251	THR
1	B	1262	LYS
1	B	1267	VAL
1	B	1270	VAL
1	B	1271	ILE
1	B	1275	SER
1	B	1278	GLN
1	B	1280	TYR
1	B	1287	THR
1	B	1291	ILE
1	B	1294	ILE
1	B	1297	LEU
1	B	1301	SER
1	B	1303	LEU
1	B	1306	GLN
1	B	1307	LEU
1	B	1308	ARG
1	B	1313	ILE
1	B	1314	ASP
1	B	1323	LEU
1	B	1334	LEU
1	B	1338	VAL
1	B	1341	LEU
1	B	1345	ASP
1	B	1347	ILE
1	B	1361	VAL
1	B	1363	THR
1	B	1365	VAL
1	B	1376	SER

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Mol	Chain	Res	Type
1	B	1381	ILE
1	B	1383	THR
1	B	1401	ARG
1	B	1421	HIS
1	B	1423	VAL
1	B	1424	MET
1	B	1426	ILE
1	B	1430	THR
1	B	1443	VAL
1	B	1451	THR
1	B	1461	ILE
1	B	1464	LEU
1	B	1465	ASN
1	B	1476	ARG
1	B	1480	PHE
1	B	1483	PHE
1	B	1485	VAL
1	B	1487	PHE
1	B	1488	LEU
1	B	1489	SER
1	B	1492	THR
1	B	1494	THR
1	B	1495	VAL
1	B	1496	TYR
1	B	1500	ARG
1	B	1502	ASP
1	B	1504	GLN
1	B	1509	TYR
1	B	1513	ASN
1	B	1516	ILE
1	B	1517	GLN
1	B	1520	CYS
1	B	1527	CYS
2	Y	65	GLU
2	Y	66	ASN
2	Y	67	TYR
2	Y	72	VAL
2	Y	78	LYS
2	Y	80	GLN
2	Y	91	LYS
2	Y	105	VAL
2	Y	113	ASN

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Mol	Chain	Res	Type
2	Y	123	THR
2	Y	136	LEU
2	Y	137	PHE
2	Y	138	VAL
2	Y	146	LEU
2	Y	150	ILE
2	Y	183	THR
2	Y	190	ILE
2	Y	210	GLU
2	Y	225	SER
2	Y	228	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (107) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	38	ASN
1	A	42	GLN
1	A	80	GLN
1	A	88	GLN
1	A	110	HIS
1	A	123	ASN
1	A	242	ASN
1	A	288	GLN
1	A	320	ASN
1	A	355	ASN
1	A	381	GLN
1	A	393	GLN
1	A	399	GLN
1	A	423	ASN
1	A	446	ASN
1	A	447	GLN
1	A	481	HIS
1	A	572	GLN
1	A	625	GLN
1	A	656	ASN
1	A	658	ASN
1	A	737	GLN
1	A	787	GLN
1	A	840	GLN
1	A	1002	HIS
1	A	1023	HIS
1	A	1029	ASN

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Mol	Chain	Res	Type
1	A	1030	HIS
1	A	1090	ASN
1	A	1096	ASN
1	A	1110	ASN
1	A	1115	ASN
1	A	1123	GLN
1	A	1140	ASN
1	A	1202	HIS
1	A	1221	ASN
1	A	1260	ASN
1	A	1278	GLN
1	A	1306	GLN
1	A	1324	HIS
1	A	1325	ASN
1	A	1366	HIS
1	A	1459	HIS
1	A	1463	GLN
1	A	1504	GLN
1	A	1608	ASN
1	A	1616	GLN
2	X	59	ASN
2	X	76	ASN
2	X	80	GLN
2	X	113	ASN
2	X	139	ASN
2	X	175	ASN
2	X	176	ASN
2	X	208	GLN
1	B	38	ASN
1	B	42	GLN
1	B	80	GLN
1	B	88	GLN
1	B	110	HIS
1	B	123	ASN
1	B	242	ASN
1	B	288	GLN
1	B	355	ASN
1	B	381	GLN
1	B	393	GLN
1	B	399	GLN
1	B	423	ASN
1	B	446	ASN

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Mol	Chain	Res	Type
1	B	473	HIS
1	B	481	HIS
1	B	572	GLN
1	B	625	GLN
1	B	656	ASN
1	B	658	ASN
1	B	737	GLN
1	B	787	GLN
1	B	840	GLN
1	B	894	HIS
1	B	1002	HIS
1	B	1023	HIS
1	B	1030	HIS
1	B	1090	ASN
1	B	1096	ASN
1	B	1110	ASN
1	B	1115	ASN
1	B	1123	GLN
1	B	1140	ASN
1	B	1202	HIS
1	B	1221	ASN
1	B	1260	ASN
1	B	1278	GLN
1	B	1306	GLN
1	B	1324	HIS
1	B	1325	ASN
1	B	1366	HIS
1	B	1459	HIS
1	B	1463	GLN
1	B	1517	GLN
2	Y	59	ASN
2	Y	76	ASN
2	Y	80	GLN
2	Y	113	ASN
2	Y	139	ASN
2	Y	175	ASN
2	Y	176	ASN
2	Y	208	GLN

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates ⓘ

4 monosaccharides are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z  > 2$	Counts	RMSZ	# $ Z  > 2$
3	NAG	C	1	3,1	14,14,15	0.57	0	17,19,21	1.44	2 (11%)
3	NAG	C	2	3	14,14,15	0.43	0	17,19,21	1.08	1 (5%)
3	NAG	D	1	3,1	14,14,15	0.56	0	17,19,21	1.10	1 (5%)
3	NAG	D	2	3	14,14,15	0.39	0	17,19,21	1.01	1 (5%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	NAG	C	1	3,1	-	2/6/23/26	0/1/1/1
3	NAG	C	2	3	-	2/6/23/26	0/1/1/1
3	NAG	D	1	3,1	-	0/6/23/26	0/1/1/1
3	NAG	D	2	3	-	2/6/23/26	0/1/1/1

There are no bond length outliers.

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	C	1	NAG	C1-O5-C5	3.79	117.27	112.19
3	C	1	NAG	C2-N2-C7	-3.60	118.08	122.90
3	C	2	NAG	C1-O5-C5	3.54	116.93	112.19
3	D	2	NAG	C1-O5-C5	3.39	116.73	112.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	1	NAG	C3-C4-C5	-2.64	105.44	110.23

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	C	2	NAG	C8-C7-N2-C2
3	C	2	NAG	O7-C7-N2-C2
3	D	2	NAG	C8-C7-N2-C2
3	D	2	NAG	O7-C7-N2-C2
3	C	1	NAG	C8-C7-N2-C2
3	C	1	NAG	O7-C7-N2-C2

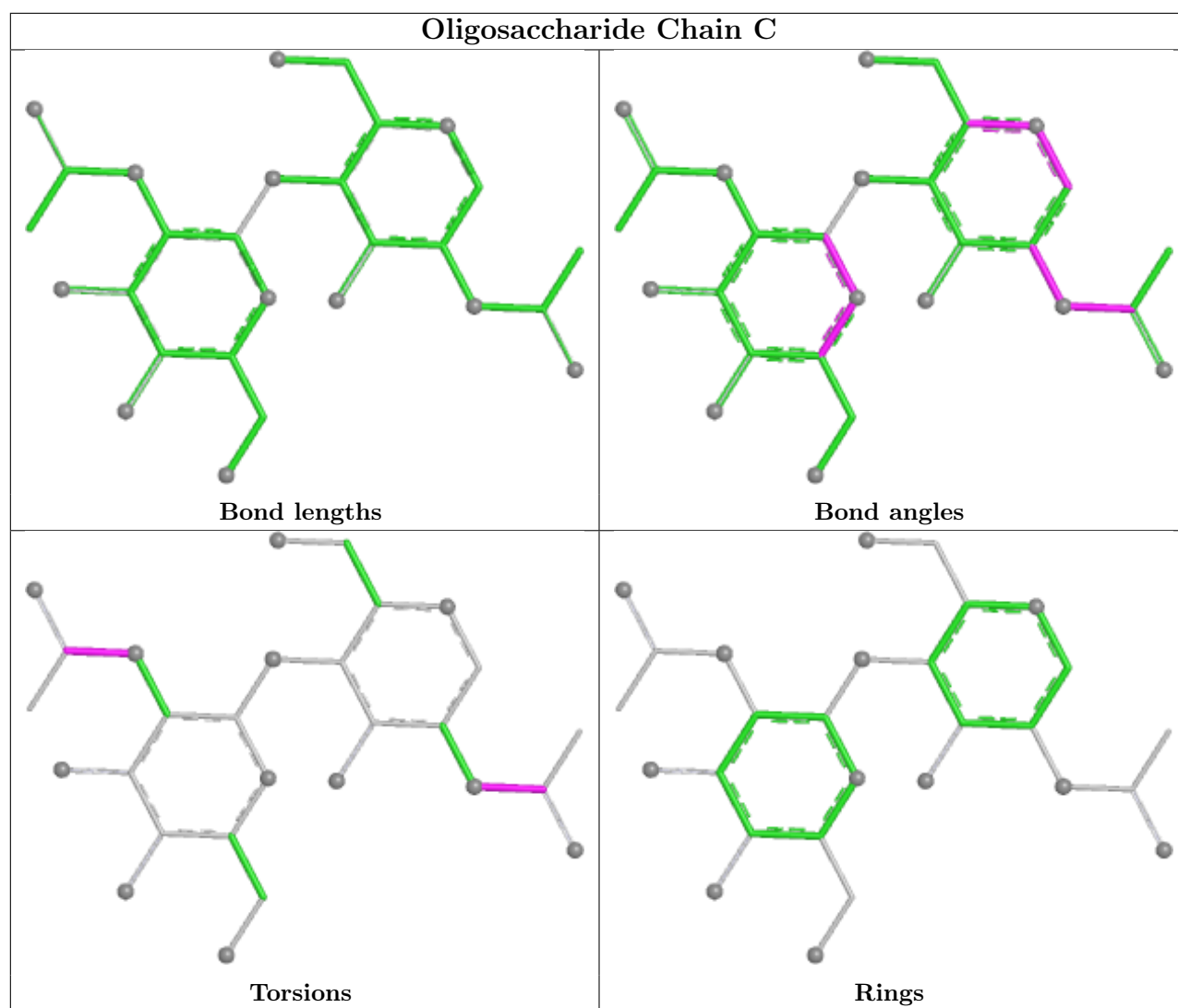
There are no ring outliers.

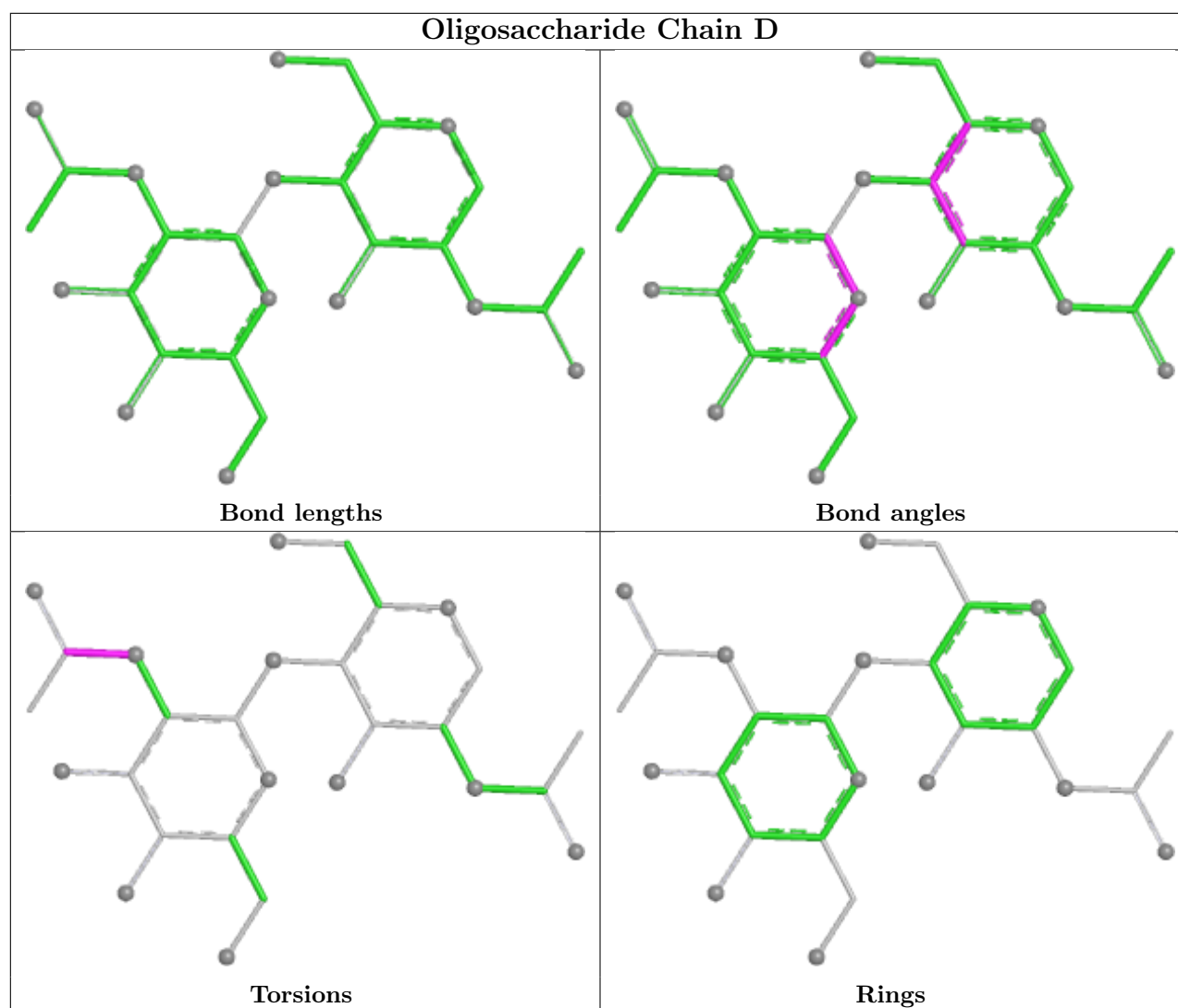
2 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	C	1	NAG	3	0
3	D	1	NAG	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.







## 5.6 Ligand geometry [i](#)

Of 11 ligands modelled in this entry, 9 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
5	NAG	B	1681	1	14,14,15	0.75	0	17,19,21	1.16	1 (5%)
5	NAG	A	1682	1	14,14,15	0.69	0	17,19,21	1.04	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	NAG	B	1681	1	-	2/6/23/26	0/1/1/1
5	NAG	A	1682	1	-	2/6/23/26	0/1/1/1

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	1681	NAG	C1-O5-C5	2.24	115.19	112.19

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	1682	NAG	C8-C7-N2-C2
5	A	1682	NAG	O7-C7-N2-C2
5	B	1681	NAG	C8-C7-N2-C2
5	B	1681	NAG	O7-C7-N2-C2

There are no ring outliers.

No monomer is involved in short contacts.

## 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 [i](#)

### 6.1 Protein, DNA and RNA chains [i](#)

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, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	1622/1676 (96%)	-0.87	0 100 100	60, 136, 275, 372	0
1	B	1478/1676 (88%)	-0.90	0 100 100	61, 129, 232, 340	0
2	X	191/231 (82%)	-0.90	0 100 100	150, 242, 308, 342	0
2	Y	191/231 (82%)	-0.85	0 100 100	149, 242, 308, 342	0
All	All	3482/3814 (91%)	-0.89	0 100 100	60, 140, 279, 372	0

There are no RSRZ outliers to report.

### 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](#)

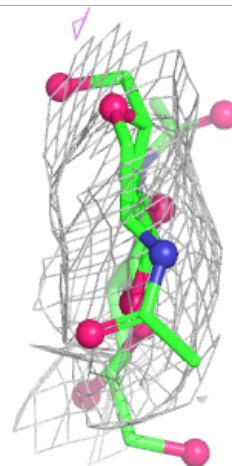
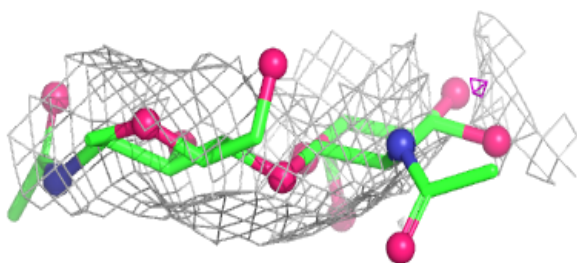
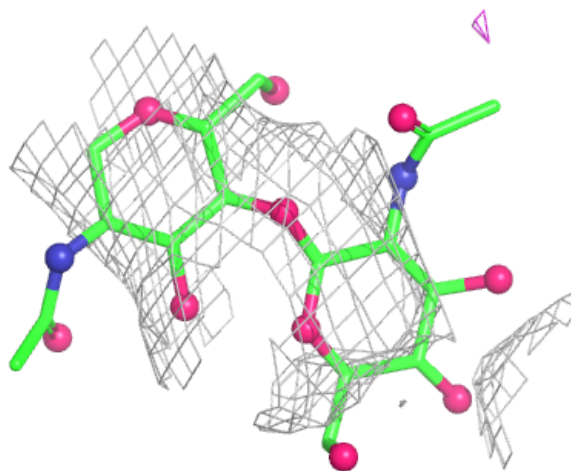
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled ‘Q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

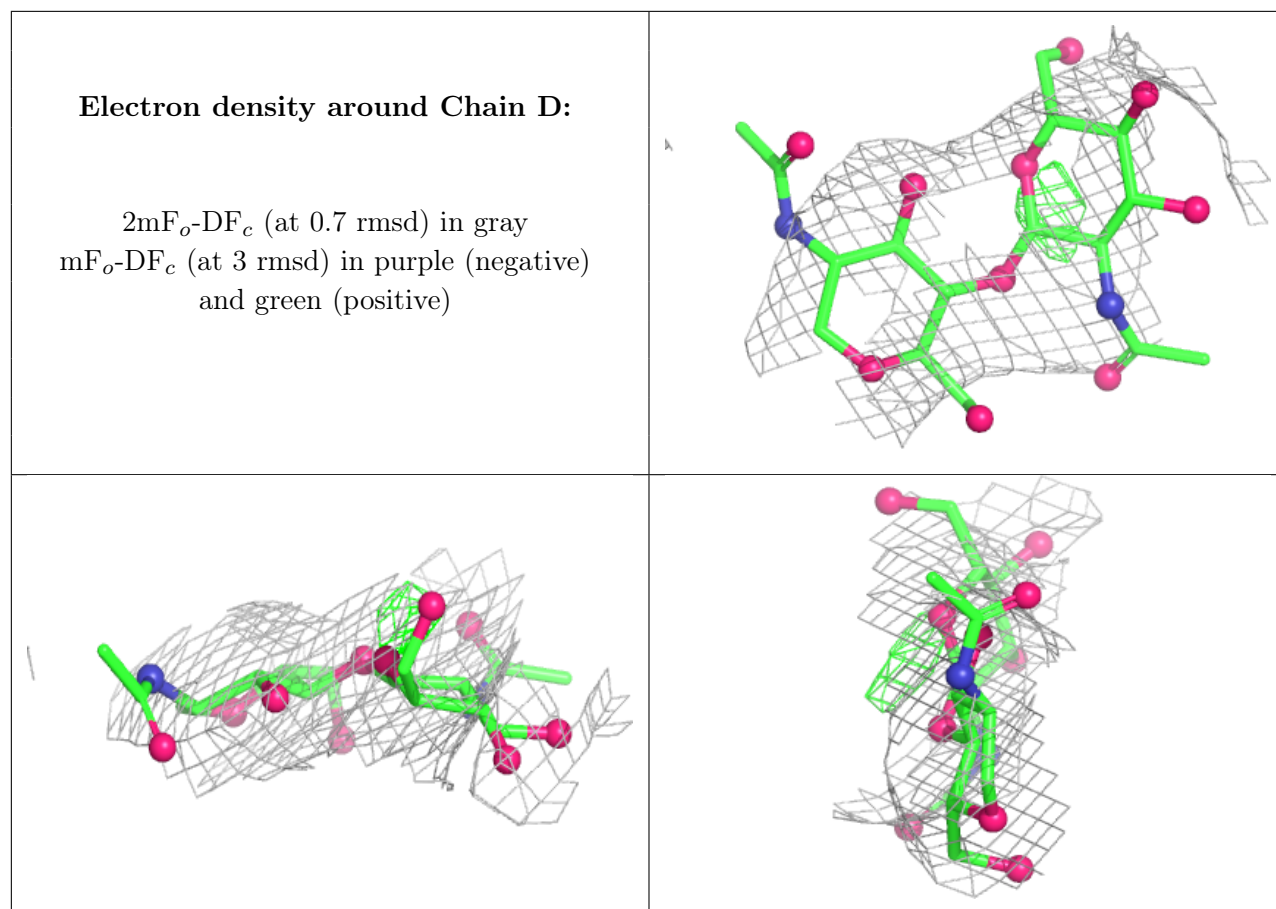
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
3	NAG	C	1	14/15	-	-	304,306,310,312	0
3	NAG	C	2	14/15	-	-	302,303,305,305	0
3	NAG	D	1	14/15	-	-	315,318,321,323	0
3	NAG	D	2	14/15	-	-	309,312,314,314	0

The following is a graphical depiction of the model fit to experimental electron density for oligosaccharide. Each fit is shown from different orientation to approximate a three-dimensional view.

**Electron density around Chain C:**

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





## 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, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
5	NAG	A	1682	14/15	0.93	0.08	285,301,311,313	0
5	NAG	B	1681	14/15	0.94	0.06	268,294,323,333	0
4	CD	A	1679	1/1	0.96	0.05	270,270,270,270	0
4	CD	B	1678	1/1	0.97	0.05	271,271,271,271	0
4	CD	B	1680	1/1	0.98	0.03	252,252,252,252	0
4	CD	A	1680	1/1	0.98	0.04	241,241,241,241	0
4	CD	A	1678	1/1	0.98	0.04	261,261,261,261	0
4	CD	B	1679	1/1	0.99	0.06	240,240,240,240	0
4	CD	A	1681	1/1	0.99	0.04	263,263,263,263	0
4	CD	B	1677	1/1	0.99	0.03	255,255,255,255	0
4	CD	A	1677	1/1	0.99	0.03	137,137,137,137	1

## 6.5 Other polymers [i](#)

There are no such residues in this entry.