



# Full wwPDB X-ray Structure Validation Report ⓘ

Mar 9, 2018 – 02:11 am GMT

PDB ID : 4AI6  
Title : Dynein Motor Domain - ADP complex  
Authors : Schmidt, H.; Gleave, E.S.; Carter, A.P.  
Deposited on : 2012-02-08  
Resolution : 3.40 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.

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

MolProbity : 4.02b-467  
Mogul : 1.7.3 (157068), CSD as539be (2018)  
Xtriage (Phenix) : 1.13  
EDS : trunk30967  
Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)  
Refmac : 5.8.0158  
CCP4 : 7.0 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk30967

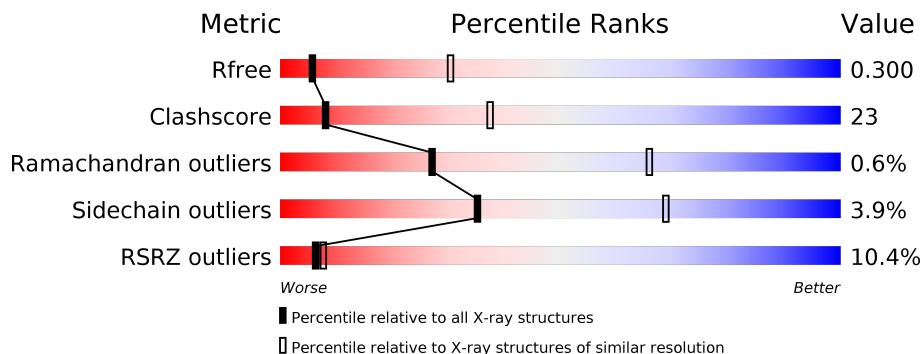
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

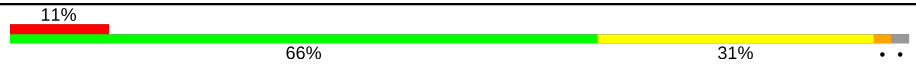

The reported resolution of this entry is 3.40 Å.

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))
$R_{free}$	111664	1928 (3.50-3.30)
Clashscore	122126	2051 (3.50-3.30)
Ramachandran outliers	120053	2006 (3.50-3.30)
Sidechain outliers	120020	2006 (3.50-3.30)
RSRZ outliers	108989	1827 (3.50-3.30)

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 on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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	2695	
1	B	2695	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	ATP	B	5400	-	-	X	-
3	ADP	A	5401	-	-	X	-
3	ADP	A	5402	-	-	X	-
3	ADP	B	5402	-	-	X	-
4	SO4	A	5403	-	-	X	-
4	SO4	B	5403	-	-	X	-

## 2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 41678 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.

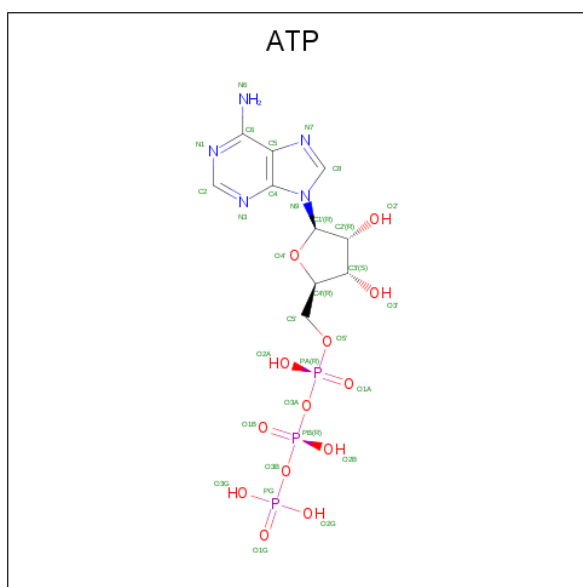
- Molecule 1 is a protein called GLUTATHIONE S-TRANSFERASE CLASS-MU 26 KDA ISOZYME, DYNEIN HEAVY CHAIN CYTOPLASMIC.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	2650	20748	13268	3472	3915	93	0	0	0
1	B	2650	20748	13268	3472	3915	93	0	0	0

There are 10 discrepancies between the modelled and reference sequences:

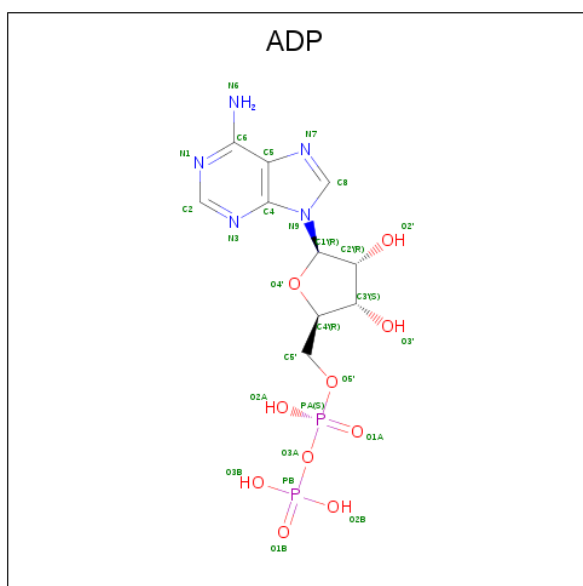
Chain	Residue	Modelled	Actual	Comment	Reference
A	217	LYS	-	linker	UNP P36022
A	218	SER	-	linker	UNP P36022
A	219	ASP	-	linker	UNP P36022
A	1630	ILE	LEU	conflict	UNP P36022
A	3782	ASP	GLU	conflict	UNP P36022
B	217	LYS	-	linker	UNP P36022
B	218	SER	-	linker	UNP P36022
B	219	ASP	-	linker	UNP P36022
B	1630	ILE	LEU	conflict	UNP P36022
B	3782	ASP	GLU	conflict	UNP P36022

- Molecule 2 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula:  $C_{10}H_{16}N_5O_{13}P_3$ ).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			31	10	5	13	3		
2	B	1	Total	C	N	O	P	0	0
			31	10	5	13	3		

- Molecule 3 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula:  $C_{10}H_{15}N_5O_{10}P_2$ ).



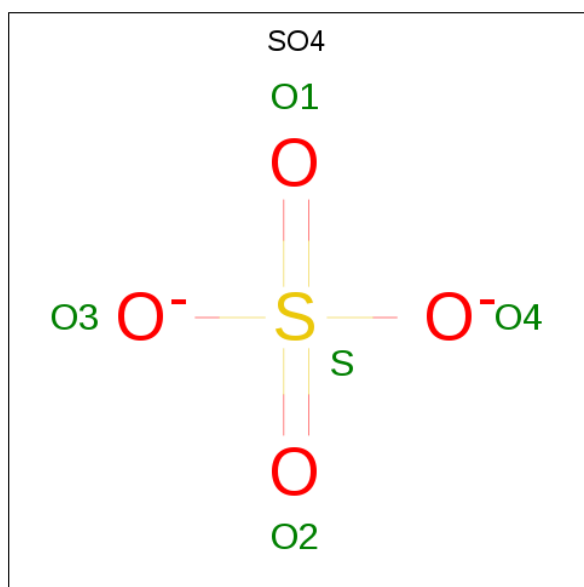
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	N	O	P	0	0
			27	10	5	10	2		

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
3	A	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
3	B	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
3	B	1	Total	C	N	O	P	0	0
			27	10	5	10	2		

- Molecule 4 is SULFATE ION (three-letter code: SO4) (formula: O<sub>4</sub>S).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	1	Total	O S	0	0
			5	4 1		
4	B	1	Total	O S	0	0
			5	4 1		

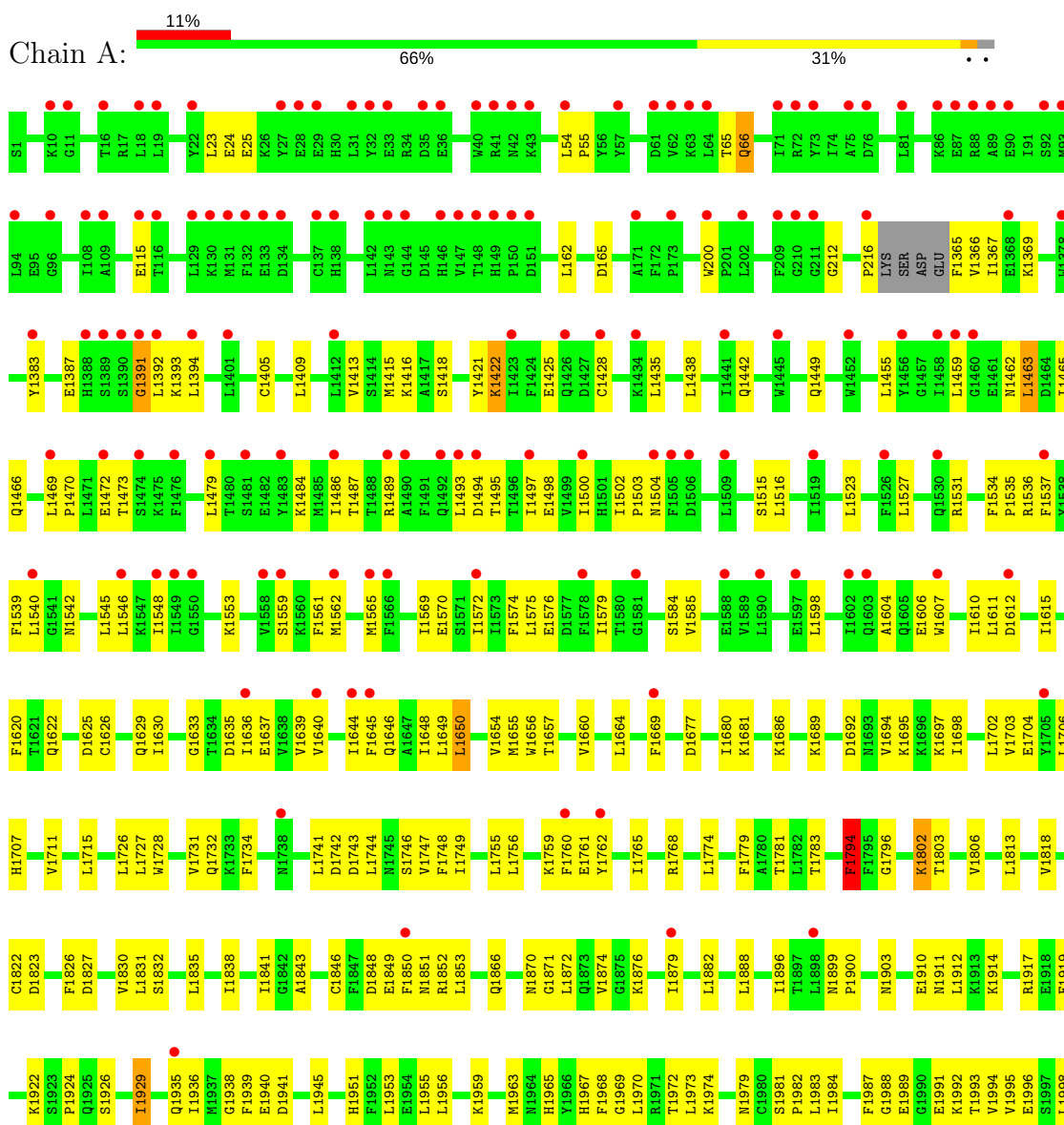
- Molecule 5 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	B	1	Total	Mg	0	0
			1	1		
5	A	1	Total	Mg	0	0
			1	1		

### 3 Residue-property plots

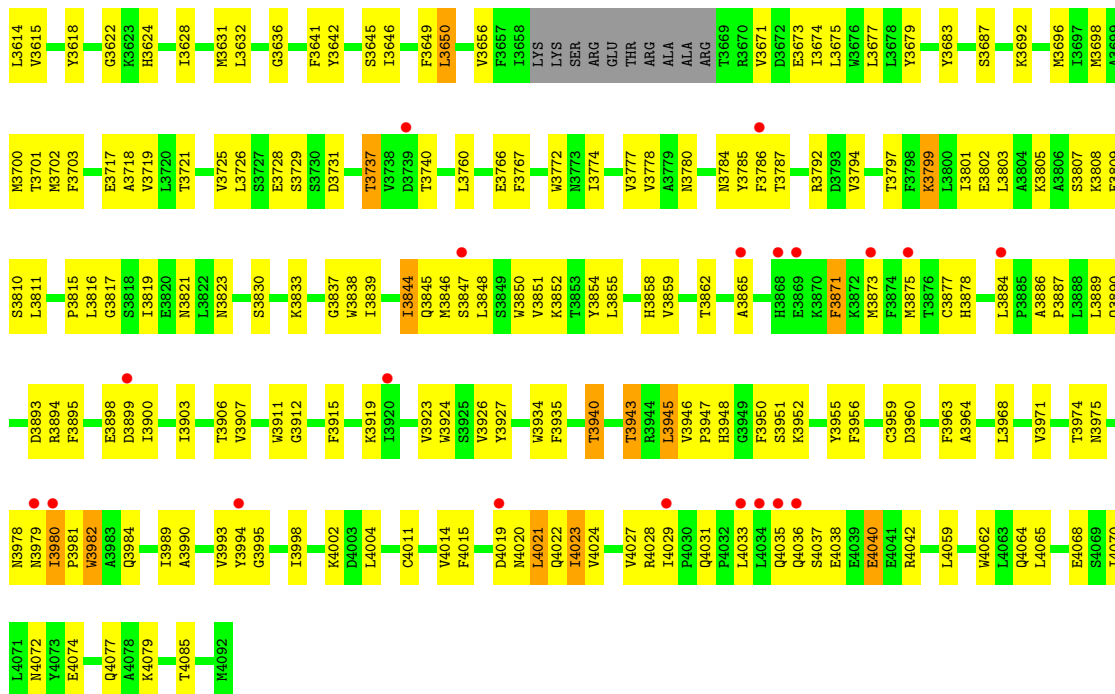
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are 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: GLUTATHIONE S-TRANSFERASE CLASS-MU 26 KDA ISOZYME, DYNEIN HEAVY CHAIN CYTOPLASMIC

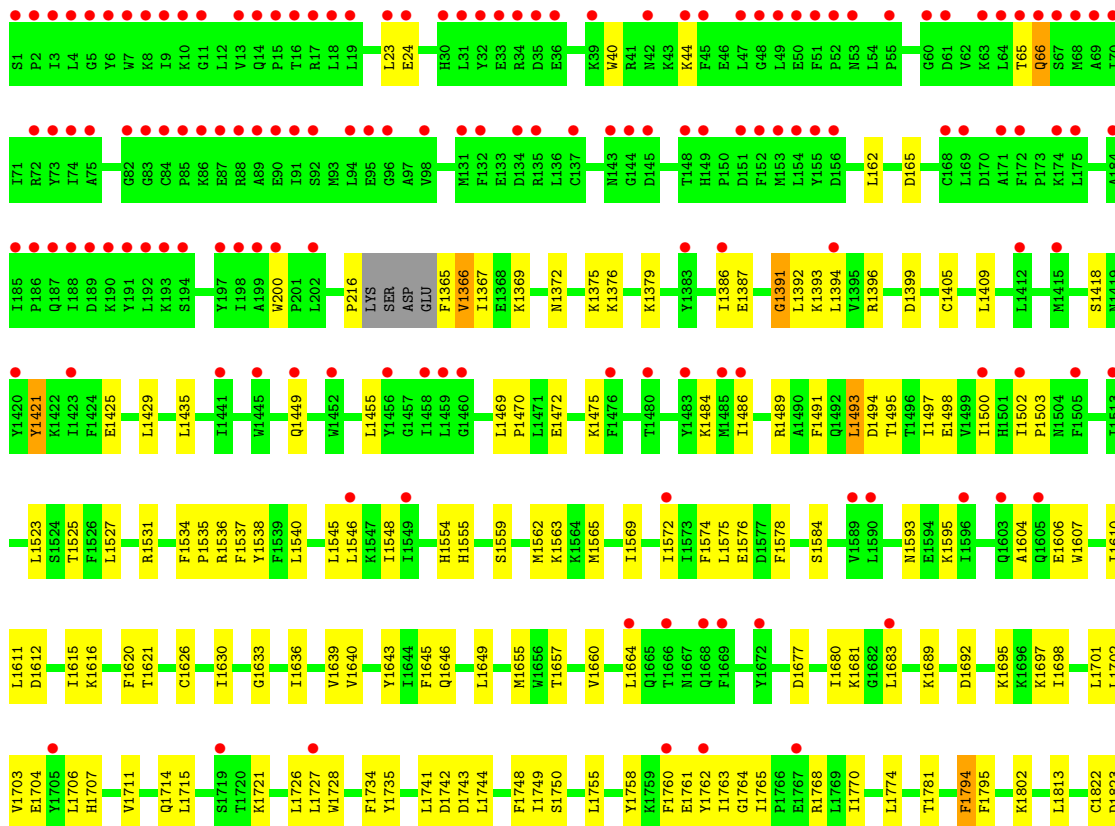


M3538	K3411	V2982	H2787	L2681	Q2569	L2474	S2369	K2181	K1999
M3541	Q3312	G2983	R2788	F2682	I2570	P2475	S2370	L2284	R2000
M3542	F3313	V2984	F2795	L2686	Y2571	K2476	F2371	E2285	V2001
M3543	T3316	N2985	F2799	G2687	Y2574	D2478	S2477	T2286	L2002
M3544	S3317	C2986	L2799	H2688	Y2575	L2482	C2372	L2184	L2003
D3547	Q3318	R2987	L2808	L2689	K2576	L2485	V2378	D2095	L2006
L3548	E3319	S2988	R2812	S2691	K2577	F2485	S2379	N2099	F2014
L3549	L3320	P2989	T2813	L2694	A2577	E2488	E2381	T2104	T2021
L3550	G3322	G2990	T2816	L2699	L2578	I2489	A2382	D2106	F2022
L3551	N3323	L2999	T2816	S2701	L2581	N2490	V2385	K2107	F2023
E3554	I3325	L3002	T2816	L2702	V2582	L2491	M2386	V2108	S2024
Y3555	G3326	Y3007	E2819	D2703	F2592	D2492	V2391	L2109	T2027
K3556	S3327	S2916	S2820	F2704	L2599	K2493	I2392	T2110	T2028
L3557	I3461	N3017	N2821	F2705	L2599	L2494	P2393	K2111	L2029
K3558	I3462	L3010	N2822	V2707	L2603	D2495	T2394	E2112	L2029
S3463	E3331	Q3014	L2823	N2708	C2603	K2496	L2395	F2117	K2032
R3464	F3334	V2920	L2828	L2712	Y2607	D2497	D2396	S2117	A2033
S3467	N3338	N3018	E2829	L2728	L2611	G2498	T2397	A2121	L2034
N3471	E3341	V3019	N2832	L2728	L2616	S2499	K2399	T2122	V2035
H3472	R3342	G3020	L2835	M2732	L2616	L2506	H2400	L2123	L2035
A3473	E3022	E3022	L2835	M2732	R2620	Q2568	E2401	F2125	L2038
R3476	K3023	K3023	A2838	S2737	R2620	L2509	L2407	W2219	K2039
V3477	L3024	L3024	D2839	M2738	T2623	L2609	L2408	C2220	G2042
F3478	N3025	N3025	N2839	V2739	R2623	K2512	L2408	S2221	Q2043
S3479	G3026	G3026	T2841	D2740	R2624	Q2513	L2409	L2222	Q2043
E3480	S3027	S3027	D2842	H2741	R2627	G2514	S2410	S2224	S2048
F3481	G3028	V3028	D2843	H2741	R2627	R2517	K2411	K2225	M2049
G3482	L3028	L3028	L2844	R2744	Y2630	K2517	R2412	L2226	F2060
H3483	V3029	L3029	Q2845	L2745	T2631	P2519	G2421	D2237	Y2061
A3484	F2943	F2943	G2846	D2746	A2632	P2519	G2421	D2238	Y2061
I3505	ASN	ASN	E2847	R2747	L2633	V2524	K2424	R2336	M2063
P3506	GLU	GLU	E2848	R2747	M2634	T2525	T2426	R2336	Q2064
L3509	ASN	ASN	Y2849	M2756	T2636	E2527	M2426	T2389	R2065
R3510	THR	THR	L2852	M2756	P2637	R2528	M2428	F2346	T2066
V3513	LYS	LYS	L2853	A2761	R2638	R2528	M2428	L2246	Q2067
F3518	LEU	LEU	L2854	S2762	Q2639	A2534	A2431	D2247	Q2068
V3519	SER	SER	N2855	R2763	T2640	C2535	L2432	K2248	A2069
T3520	LEU	LEU	L2856	T2764	T2640	M2536	L2432	L2249	L2070
N3521	VAL	VAL	T2860	G2765	S2643	R2543	L2437	L2252	F2071
M3525	VAL	VAL	L2865	I2767	L2644	R2543	L2437	F2257	L2072
R3528	PRO	PRO	E2870	L2768	W2653	R2549	N2444	L2262	K2075
I3529	ILE	ILE	L2873	R2771	R2654	F2550	S2446	L2266	A2076
F3530	K3303	K3303	L2873	L2779	R2654	D2448	K2447	F2266	G2077
F3530	E3304	E3304	D2875	K2780	D2658	T2449	T2449	F2266	G2078
L3534	R3306	R3306	W2876	L2781	D2658	A2555	N2463	H2274	K2080
L3535	L3307	L3307	F2877	Y2782	L2673	P2562	G2470	L2275	T2081
E3536	N3308	N3308	W2878	Q2783	L2676	S2563	L2471	L2276	A2082
E3537	T3310	T3310	H2886	K2784	V2677	K2566	T2472	K2385	T2083
				L2786		S2566	L2473	F2368	W2084
									K2085
									T2086

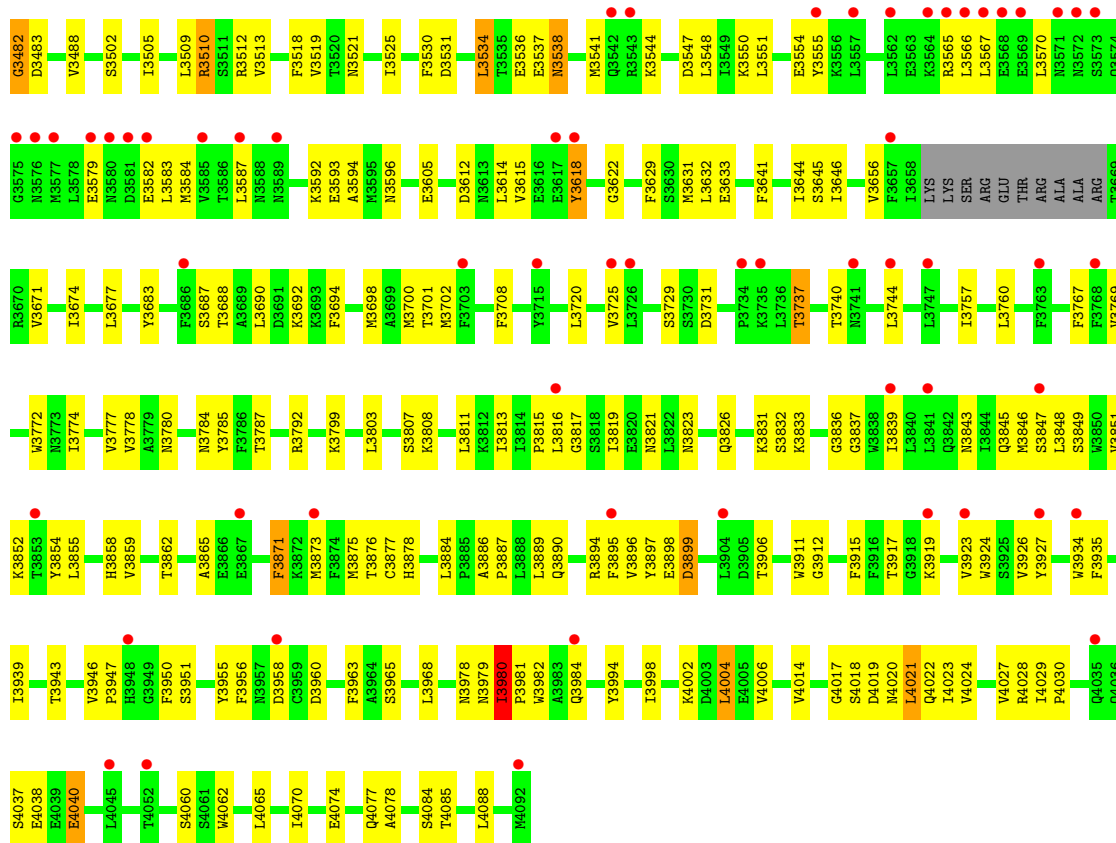




● Molecule 1: GLUTATHIONE S-TRANSFERASE CLASS-MU 26 KDA ISOZYME, DYNEIN HEAVY CHAIN CYTOPLASMIC



Y3360	F1826	L2109	D2197	S2309	D2406	Y2497	P2591	L2734	E2824	W2920	LEU	Y3470
D3361	D1827	T2110	M2198	L2310	D2406	G2498	P2609	S2737	T2825	T2924	LYS	N3471
I3367	K2111	E2112	L2199	K2311	N2409	S2499	T2609	M2738	A2826	M2938	VAL	H3472
V3371	Q1935	I2021	H2200	V2312	R2409	R2506	Q2612	H2741	E2829	T2941	ASN	A3473
T3372	Y1828	L2021	H2201	V2313	K2410	L2506	S2613	I2742	N2832	T2942	LEU	F3476
F3380	Q1829	I2022	H2202	V2314	K2411	R2507	Q2613	R2743	T2833	D2943	ASN	L3477
L3391	V1830	D2023	T2202	T2314	R2412	K2512	R2620	L2744	L2834	L2944	LYS	T3478
E3392	L1831	S2024	P2204	T2315	L2415	Q2513	R2624	I2745	L2835	ILE	THR	S3478
N3393	S1832	T2027	A2205	T2316	C2417	Q2513	V2626	Q2751	A2838	VAL	SER	L3481
S3400	E1833	T2122	L2212	L2317	P2420	K2517	R2627	Q2752	D2842	PRO	ILE	F3482
D3402	I1838	T2122	L2212	L2318	T2420	T2518	R2627	Q2753	L2843	GLU	THR	N3483
A3403	G1842	P2028	C2220	L2318	K2424	E2520	T2631	G2754	L2843	ASN	THR	R3484
F3406	G1842	K2032	K2032	L2319	T2425	V2524	T2631	H2755	L2844	ASN	THR	D3489
L3407	A1844	I2034	I2034	L2320	T2425	V2524	T2631	M2757	Q2845	LYS	THR	H3491
H3413	G1844	V2035	S2223	L2322	M2428	R2526	T2631	L2758	Q2846	GLU	THR	N3492
I3415	G1845	R2044	K2225	G2332	L2437	E2527	T2631	I2759	G2846	LEU	THR	H3493
V3417	E1849	F2145	L2229	Q2335	V2440	R2528	T2631	Q2761	Y2849	VAL	THR	F3494
V3417	F1850	R2149	L2230	R2336	V2440	R2528	T2631	R2762	L2852	PHE	THR	L3495
L3429	R1851	F2060	N2239	I2339	F2445	I2529	T2631	S2762	L2852	THR	THR	D3499
R3439	R1852	Y2061	N2239	I2339	F2445	H2530	T2631	R2763	L2853	GLU	THR	H3499
L3440	L1853	L1970	L2249	F2346	R2446	I2531	T2631	G2764	L2853	PRO	THR	N3499
A3443	V1857	R1971	L2249	F2346	K2447	I2531	T2631	G2765	L2856	ILE	THR	H3499
F3446	I1864	R1972	L2252	S2350	D2448	C2535	T2631	K2766	T2860	GLN	THR	N3499
V3450	I1865	I1972	D2262	Q2351	T2449	N2536	T2631	T2767	T2860	T2960	THR	F3499
D3459	Q1866	L1972	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	I2961	THR	L3499
P3460	I1871	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	R2962	THR	V3499
I3461	L1872	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	D2963	THR	L3499
I3462	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	A2964	THR	H3499
S3463	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	V2965	THR	F3499
R3464	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	V2966	THR	L3499
S3466	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	M2967	THR	H3499
F3470	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	E2870	THR	F3499
N3471	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	L2873	THR	V3499
H3472	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	L2873	THR	L3499
A3473	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	L2873	THR	H3499
L3476	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	L2873	THR	F3499
V3477	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	L2873	THR	L3499
T3478	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	L2873	THR	H3499
I3481	L1882	L2071	L2262	Q2351	T2449	N2536	T2631	T2767	T2860	L2873	THR	F3499



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	174.89Å 119.17Å 193.97Å 90.00° 90.18° 90.00°	Depositor
Resolution (Å)	49.29 – 3.40 49.24 – 3.40	Depositor EDS
% Data completeness (in resolution range)	99.7 (49.29-3.40) 99.9 (49.24-3.40)	Depositor EDS
$R_{merge}$	0.12	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.35 (at 3.40Å)	Xtrriage
Refinement program	REFMAC 5.7.0019	Depositor
R, $R_{free}$	0.241 , 0.303 0.236 , 0.300	Depositor DCC
$R_{free}$ test set	5512 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	133.4	Xtrriage
Anisotropy	0.397	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.29 , 132.0	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.46$ , $\langle L^2 \rangle = 0.28$	Xtrriage
Estimated twinning fraction	0.033 for h,-k,-l	Xtrriage
$F_o, F_c$ correlation	0.94	EDS
Total number of atoms	41678	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	190.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.79% 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 [i](#)

### 5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: ATP, MG, SO<sub>4</sub>, ADP

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	0.54	0/21146	0.77	12/28618 (0.0%)
1	B	0.52	0/21146	0.76	9/28618 (0.0%)
All	All	0.53	0/42292	0.77	21/57236 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1

There are no bond length outliers.

All (21) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	2455	LEU	CB-CG-CD1	-8.01	97.38	111.00
1	A	3650	LEU	CB-CG-CD1	-7.07	98.98	111.00
1	A	1882	LEU	CA-CB-CG	6.87	131.09	115.30
1	A	1463	LEU	CA-CB-CG	6.63	130.55	115.30
1	A	3945	LEU	CB-CG-CD2	-6.48	99.98	111.00
1	A	4021	LEU	CB-CG-CD2	-5.99	100.81	111.00
1	A	4059	LEU	CB-CG-CD2	-5.97	100.85	111.00
1	B	1872	LEU	CB-CG-CD2	5.95	121.11	111.00
1	B	1882	LEU	CA-CB-CG	5.93	128.95	115.30
1	A	200	TRP	C-N-CA	5.77	146.22	122.00
1	B	200	TRP	C-N-CA	5.45	144.89	122.00
1	B	2158	LEU	CB-CG-CD2	-5.42	101.79	111.00
1	A	4042	ARG	NE-CZ-NH1	5.38	122.99	120.30
1	B	2471	LEU	CA-CB-CG	5.34	127.57	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	3726	LEU	CB-CG-CD1	-5.33	101.93	111.00
1	A	4023	ILE	CG1-CB-CG2	-5.29	99.77	111.40
1	A	1794	PHE	N-CA-CB	5.27	120.09	110.60
1	B	2158	LEU	CA-CB-CG	5.24	127.36	115.30
1	B	2279	ARG	NE-CZ-NH1	-5.24	117.68	120.30
1	B	1938	GLY	N-CA-C	-5.23	100.03	113.10
1	A	1650	LEU	CB-CG-CD1	5.21	119.85	111.00

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	3308	ASN	Peptide

## 5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	20748	0	20206	934	0
1	B	20748	0	20207	930	0
2	A	31	0	12	6	0
2	B	31	0	12	22	0
3	A	54	0	24	28	0
3	B	54	0	24	29	0
4	A	5	0	0	2	0
4	B	5	0	0	2	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
All	All	41678	0	40485	1867	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 23.

All (1867) 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:2732:MET:HB2	3:B:5402:ADP:C6	1.40	1.57
1:B:1365:PHE:CD1	1:B:1366:VAL:HG23	1.34	1.57
1:A:1365:PHE:CE2	1:A:1366:VAL:HG23	1.55	1.39
1:A:1365:PHE:CD2	1:A:1366:VAL:HG23	1.68	1.27
1:B:1365:PHE:CE1	1:B:1366:VAL:HG23	1.70	1.27
1:A:3777:VAL:HG11	1:A:3895:PHE:CE1	1.70	1.26
1:B:2386:MET:CG	1:B:2627:ARG:HD2	1.69	1.23
1:B:1620:PHE:HD1	1:B:1760:PHE:CZ	1.60	1.19
1:B:2380:LEU:CD2	1:B:2390:ILE:HD11	1.71	1.19
1:B:2473:LEU:CD2	1:B:2475:PRO:HD3	1.72	1.18
1:B:3525:ILE:HD11	1:B:3646:ILE:HG22	1.22	1.18
1:B:2707:VAL:HB	1:B:2712:LEU:HD11	1.22	1.18
1:A:1365:PHE:CE2	1:A:1366:VAL:CG2	2.26	1.17
1:B:2732:MET:HB2	3:B:5402:ADP:C5	1.79	1.17
1:B:2732:MET:HE3	1:B:2768:ILE:HG23	1.25	1.17
1:A:2517:LYS:HE3	1:A:2524:VAL:CG2	1.73	1.17
1:A:1983:LEU:HG	1:A:1993:THR:HG23	1.26	1.17
1:A:1620:PHE:HD1	1:A:1760:PHE:CZ	1.62	1.15
1:A:3525:ILE:HD11	1:A:3646:ILE:HG22	1.23	1.15
1:B:2473:LEU:HD23	1:B:2475:PRO:HD3	1.17	1.15
1:B:1365:PHE:CD1	1:B:1366:VAL:CG2	2.30	1.15
1:A:1826:PHE:HE2	1:A:1831:LEU:HB2	1.13	1.14
1:B:2732:MET:CE	1:B:2768:ILE:HG21	1.78	1.14
1:B:2488:GLU:HB3	1:B:2491:LEU:HD12	1.17	1.13
1:B:2386:MET:HG2	1:B:2627:ARG:HD2	1.16	1.13
1:B:2732:MET:CE	1:B:2768:ILE:CG2	2.26	1.13
1:B:3534:LEU:CD1	1:B:3618:TYR:HE2	1.61	1.13
1:A:1823:ASP:HB2	1:A:1852:ARG:O	1.48	1.13
1:A:2707:VAL:HB	1:A:2712:LEU:HD11	1.13	1.12
1:A:2111:LYS:HD3	1:A:2161:GLU:HG3	1.22	1.12
1:B:2380:LEU:HD21	1:B:2390:ILE:CD1	1.78	1.11
1:A:3534:LEU:HD12	1:A:3618:TYR:HE2	1.15	1.11
1:A:3777:VAL:CG1	1:A:3895:PHE:HE1	1.61	1.11
1:B:1535:PRO:HB2	1:B:1841:ILE:CG1	1.81	1.11
1:A:2386:MET:HB2	1:A:2627:ARG:HD3	1.32	1.11
1:B:3777:VAL:HG11	1:B:3895:PHE:HE1	1.09	1.11
1:A:3024:LEU:HD11	1:A:3303:LYS:HG3	1.33	1.11
1:A:4033:LEU:CD1	1:A:4035:GLN:HB2	1.80	1.11
1:B:1992:LYS:HG3	1:B:2024:SER:HB2	1.30	1.10
1:B:1983:LEU:HG	1:B:1993:THR:HG23	1.14	1.10
1:B:2732:MET:HE1	1:B:2768:ILE:HG21	1.17	1.10
1:A:1826:PHE:CE2	1:A:1831:LEU:HB2	1.86	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2732:MET:CB	3:B:5402:ADP:C6	2.34	1.10
1:B:2732:MET:HE3	1:B:2768:ILE:CG2	1.80	1.10
1:A:3534:LEU:CD1	1:A:3618:TYR:HE2	1.64	1.10
1:A:2488:GLU:HB3	1:A:2491:LEU:HD12	1.15	1.09
1:A:3306:TRP:CH2	1:A:3594:ALA:HB3	1.86	1.09
1:B:2111:LYS:HD3	1:B:2161:GLU:HG3	1.20	1.09
1:B:216:PRO:O	1:B:1365:PHE:HB2	1.50	1.08
1:B:1823:ASP:HB2	1:B:1852:ARG:O	1.53	1.08
1:B:2920:TRP:HB2	1:B:2989:PRO:HG3	1.14	1.08
1:A:2745:ILE:HG23	1:A:2756:MET:HE1	1.28	1.07
1:B:1822:CYS:HB2	1:B:1853:LEU:HD21	1.34	1.07
1:B:1421:TYR:O	1:B:1425:GLU:HB2	1.52	1.06
1:B:1409:LEU:HD21	1:B:1435:LEU:HB3	1.33	1.06
1:B:1645:PHE:HB3	1:B:1765:ILE:HG22	1.37	1.06
1:A:2107:LYS:HE3	1:A:2495:ASP:OD2	1.53	1.06
1:A:2988:SER:HB3	1:A:2989:PRO:HD2	1.11	1.05
1:B:2473:LEU:HD23	1:B:2475:PRO:CD	1.86	1.05
1:B:2785:LYS:HD3	1:B:3482:GLY:O	1.56	1.05
1:A:1866:GLN:OE1	1:A:1911:ASN:HB2	1.57	1.05
1:B:1535:PRO:HB2	1:B:1841:ILE:HG13	1.33	1.05
1:B:2473:LEU:CD2	1:B:2475:PRO:CD	2.33	1.05
1:B:2988:SER:HB3	1:B:2989:PRO:HD2	1.09	1.04
1:B:2378:VAL:HG22	1:B:2380:LEU:CD1	1.86	1.04
1:B:2386:MET:CB	1:B:2627:ARG:HD2	1.87	1.04
1:A:2707:VAL:CB	1:A:2712:LEU:HD11	1.88	1.03
1:B:2494:LEU:HD13	1:B:2498:GLY:HA2	1.04	1.03
1:A:1421:TYR:HD1	1:A:1425:GLU:HB2	1.18	1.03
1:B:2107:LYS:HE3	1:B:2495:ASP:OD2	1.56	1.03
1:A:2282:ASN:HB3	1:A:2552:ARG:HG3	1.36	1.03
1:A:2787:HIS:HA	1:A:3460:PRO:HD2	1.38	1.02
1:B:3534:LEU:HD12	1:B:3618:TYR:HE2	1.19	1.02
1:A:1535:PRO:HB2	1:A:1841:ILE:HG13	1.39	1.02
1:A:2920:TRP:HB2	1:A:2989:PRO:HG3	1.02	1.02
1:A:1999:LYS:HG2	1:A:2014:PHE:CE1	1.95	1.01
1:A:2494:LEU:HD13	1:A:2498:GLY:CA	1.88	1.01
1:A:2494:LEU:CD1	1:A:2498:GLY:HA2	1.90	1.01
1:B:2732:MET:HB2	3:B:5402:ADP:N1	1.76	1.01
1:A:3946:VAL:HG12	1:A:3950:PHE:O	1.61	1.00
1:B:2494:LEU:HD13	1:B:2498:GLY:CA	1.91	1.00
1:A:1645:PHE:HB3	1:A:1765:ILE:HG22	1.41	1.00
1:A:1822:CYS:HB2	1:A:1853:LEU:HD21	1.38	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2494:LEU:HD13	1:A:2498:GLY:HA2	1.00	1.00
1:B:3534:LEU:HD12	1:B:3618:TYR:CE2	1.97	1.00
1:B:2386:MET:HG2	1:B:2627:ARG:CD	1.92	0.99
1:B:3534:LEU:CD1	1:B:3618:TYR:CE2	2.44	0.99
1:B:1365:PHE:CE1	1:B:1366:VAL:CG2	2.45	0.99
1:B:1620:PHE:CD1	1:B:1760:PHE:CZ	2.51	0.99
1:B:2494:LEU:CD1	1:B:2498:GLY:HA2	1.93	0.99
1:B:1365:PHE:HD1	1:B:1366:VAL:CG2	1.71	0.99
1:A:1992:LYS:CG	1:A:2024:SER:HB2	1.93	0.99
1:B:1645:PHE:HB3	1:B:1765:ILE:CG2	1.93	0.99
1:B:1421:TYR:CE1	1:B:1425:GLU:CG	2.46	0.98
1:A:1992:LYS:HG3	1:A:2024:SER:HB2	1.39	0.98
1:A:1620:PHE:HD1	1:A:1760:PHE:HZ	0.98	0.98
1:A:2732:MET:CE	1:A:2768:ILE:HG21	1.94	0.98
1:A:3307:LEU:HD12	1:A:3307:LEU:C	1.82	0.97
1:A:1645:PHE:HB3	1:A:1765:ILE:CG2	1.93	0.97
1:A:2488:GLU:CB	1:A:2491:LEU:HD12	1.95	0.97
1:A:2920:TRP:HB2	1:A:2989:PRO:CG	1.93	0.97
1:A:3737:THR:HB	1:A:3740:THR:OG1	1.64	0.97
1:B:2137:VAL:O	1:B:2141:ILE:HG23	1.65	0.97
1:B:1620:PHE:HD1	1:B:1760:PHE:HZ	1.02	0.97
1:A:1744:LEU:HA	1:A:1760:PHE:CE2	2.00	0.97
1:B:1535:PRO:CB	1:B:1841:ILE:HG13	1.95	0.97
1:B:1630:ILE:HG22	1:B:1655:MET:SD	2.05	0.97
1:B:3024:LEU:HD11	1:B:3303:LYS:HG3	1.43	0.96
1:A:2768:ILE:HG22	3:A:5402:ADP:O2A	1.65	0.96
1:A:3534:LEU:CD1	1:A:3618:TYR:CE2	2.49	0.96
1:B:2988:SER:HB3	1:B:2989:PRO:CD	1.94	0.96
1:B:3777:VAL:HG11	1:B:3895:PHE:CE1	2.00	0.96
1:A:1421:TYR:O	1:A:1421:TYR:CD1	2.19	0.95
1:B:1649:LEU:HD11	1:B:1704:GLU:HG3	1.45	0.95
1:A:1620:PHE:CD1	1:A:1760:PHE:CZ	2.53	0.95
1:B:1421:TYR:CE1	1:B:1425:GLU:HG3	2.02	0.95
1:A:2407:LEU:HD22	1:A:2412:ARG:HH12	1.32	0.95
1:A:2765:GLY:HA2	3:A:5402:ADP:PA	2.07	0.95
1:B:2412:ARG:NH1	1:B:2553:HIS:HA	1.82	0.94
1:A:3307:LEU:HD12	1:A:3307:LEU:O	1.67	0.94
1:A:3534:LEU:HD12	1:A:3618:TYR:CE2	2.02	0.94
1:A:3306:TRP:CZ2	1:A:3594:ALA:HB3	2.03	0.94
1:B:2707:VAL:CB	1:B:2712:LEU:HD11	1.96	0.94
1:B:2080:LYS:HD2	1:B:2195:GLU:HB2	1.48	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2732:MET:HE3	1:A:2768:ILE:HG21	1.47	0.94
1:A:1421:TYR:O	1:A:1425:GLU:HB2	1.66	0.94
1:A:2141:ILE:HG22	1:A:2145:PHE:HB2	1.49	0.94
1:A:1956:LEU:HB3	1:A:1968:PHE:CE2	2.03	0.94
1:A:2109:LEU:HD11	1:A:2129:LEU:HD22	1.48	0.94
1:B:3530:PHE:CD1	1:B:3618:TYR:HD2	1.86	0.94
1:A:2988:SER:HB3	1:A:2989:PRO:CD	1.96	0.94
1:B:2111:LYS:HD3	1:B:2161:GLU:CG	1.98	0.94
1:B:2787:HIS:HA	1:B:3460:PRO:HD2	1.47	0.93
1:A:1409:LEU:HD21	1:A:1435:LEU:CB	1.98	0.93
1:B:1866:GLN:OE1	1:B:1911:ASN:HB2	1.68	0.93
1:A:2488:GLU:HB3	1:A:2491:LEU:CD1	1.99	0.93
1:A:3534:LEU:HD11	1:A:3614:LEU:HD23	1.47	0.93
1:B:2920:TRP:HB2	1:B:2989:PRO:CG	1.97	0.93
1:A:3303:LYS:HD2	1:A:3306:TRP:HB2	1.51	0.93
1:B:1774:LEU:HD21	1:B:1922:LYS:O	1.67	0.93
1:B:3946:VAL:HG12	1:B:3950:PHE:O	1.69	0.93
1:B:2761:ALA:O	1:B:2892:CYS:HB3	1.69	0.93
1:B:1562:MET:HB3	1:B:1569:ILE:HD11	1.48	0.92
1:B:3777:VAL:CG1	1:B:3895:PHE:HE1	1.82	0.92
1:B:1421:TYR:CZ	1:B:1425:GLU:HG3	2.05	0.92
1:B:1645:PHE:CB	1:B:1765:ILE:HG22	1.99	0.91
1:B:1726:LEU:CD1	1:B:3984:GLN:HB3	2.01	0.91
1:B:1535:PRO:HB2	1:B:1841:ILE:CD1	2.00	0.91
1:B:3656:VAL:HG13	1:B:3677:LEU:HB3	1.51	0.91
1:A:1992:LYS:HE2	1:A:2024:SER:O	1.71	0.91
1:A:3777:VAL:HG11	1:A:3895:PHE:HE1	0.77	0.91
1:B:3303:LYS:HA	1:B:3306:TRP:CD1	2.05	0.91
1:A:3304:GLU:O	1:A:3307:LEU:HG	1.68	0.90
1:A:3406:PHE:HB2	1:A:3513:VAL:CG1	2.01	0.90
1:B:1726:LEU:HD12	1:B:3984:GLN:HB3	1.50	0.90
1:A:3304:GLU:HG3	1:A:3307:LEU:HD23	1.51	0.90
1:A:1956:LEU:HB3	1:A:1968:PHE:HE2	1.36	0.90
1:A:1939:PHE:CD1	1:A:1940:GLU:O	2.24	0.90
1:A:4033:LEU:HD13	1:A:4035:GLN:HB2	1.53	0.90
1:B:2112:GLU:HB3	1:B:2117:SER:HB2	1.51	0.90
1:A:2762:SER:O	1:A:2763:ARG:HB2	1.70	0.90
1:A:1421:TYR:CD1	1:A:1425:GLU:HB2	2.07	0.90
1:B:1802:LYS:HG2	1:B:1921:MET:HG3	1.52	0.89
1:B:1365:PHE:CD1	1:B:1366:VAL:N	2.40	0.89
1:B:3406:PHE:HB2	1:B:3513:VAL:CG1	2.03	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2920:TRP:CB	1:A:2989:PRO:HG3	1.98	0.89
1:A:3306:TRP:CH2	1:A:3594:ALA:CB	2.54	0.89
1:B:1940:GLU:HB2	1:B:1989:GLU:O	1.73	0.89
1:A:1604:ALA:HA	1:A:1607:TRP:CD1	2.08	0.89
1:A:1940:GLU:HB2	1:A:1989:GLU:O	1.70	0.89
1:A:2787:HIS:HA	1:A:3460:PRO:CD	2.03	0.89
1:A:3525:ILE:CD1	1:A:3646:ILE:HG22	2.03	0.88
1:B:2732:MET:CB	3:B:5402:ADP:C5	2.56	0.88
1:A:1409:LEU:HD21	1:A:1435:LEU:HB3	1.53	0.88
1:B:1924:PRO:HB2	1:B:1929:ILE:HD11	1.53	0.88
1:A:2517:LYS:HE3	1:A:2524:VAL:HG22	1.54	0.88
1:B:3024:LEU:CD1	1:B:3303:LYS:HG3	2.03	0.88
1:A:3530:PHE:CD1	1:A:3618:TYR:HD2	1.91	0.88
1:B:1939:PHE:CD1	1:B:1940:GLU:O	2.26	0.88
1:A:1929:ILE:HD13	1:A:1970:LEU:HD11	1.56	0.88
1:B:3792:ARG:HB2	1:B:3955:TYR:CD1	2.09	0.88
1:A:1416:LYS:HA	1:A:1421:TYR:CZ	2.09	0.88
1:B:2488:GLU:HB3	1:B:2491:LEU:CD1	2.03	0.88
1:A:2111:LYS:HD3	1:A:2161:GLU:CG	2.04	0.88
1:A:2517:LYS:CE	1:A:2524:VAL:CG2	2.51	0.88
1:A:2476:LYS:H	1:A:2476:LYS:CD	1.86	0.87
1:A:2988:SER:CB	1:A:2989:PRO:HD2	2.03	0.87
1:B:1926:SER:CB	1:B:1970:LEU:HD12	2.05	0.87
1:A:1620:PHE:CD1	1:A:1760:PHE:HZ	1.89	0.87
1:A:2745:ILE:HG23	1:A:2756:MET:CE	2.04	0.87
1:B:2107:LYS:HE2	1:B:2499:SER:HB3	1.57	0.87
1:A:3656:VAL:HG13	1:A:3677:LEU:HB3	1.57	0.87
1:B:3737:THR:HB	1:B:3740:THR:OG1	1.74	0.87
1:A:2386:MET:CB	1:A:2627:ARG:HD3	2.04	0.86
1:B:2175:ILE:HG12	1:B:2183:ARG:HB3	1.56	0.86
1:A:2274:HIS:HE1	1:A:2326:LEU:O	1.59	0.86
1:B:2080:LYS:NZ	1:B:2549:ARG:NH2	2.21	0.86
1:A:2707:VAL:HB	1:A:2712:LEU:CD1	2.01	0.86
1:A:2763:ARG:O	3:A:5402:ADP:C8	2.27	0.86
1:B:1992:LYS:CG	1:B:2024:SER:HB2	2.04	0.86
1:B:2988:SER:CB	1:B:2989:PRO:HD2	2.00	0.86
1:B:2563:SER:HB3	1:B:2566:SER:H	1.39	0.86
1:B:2733:VAL:N	3:B:5402:ADP:N1	2.22	0.86
1:B:2378:VAL:CG2	1:B:2380:LEU:CD1	2.54	0.86
1:B:3851:VAL:HG13	1:B:3855:LEU:HD23	1.56	0.86
1:A:4033:LEU:HD11	1:A:4035:GLN:HB2	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2080:LYS:HZ2	1:B:2549:ARG:NH2	1.73	0.86
1:B:1649:LEU:CD1	1:B:1704:GLU:HG3	2.06	0.85
1:B:1744:LEU:HA	1:B:1760:PHE:CE2	2.11	0.85
1:A:1823:ASP:CB	1:A:1852:ARG:O	2.23	0.85
1:A:2362:ALA:HB3	1:A:2365:LYS:O	1.75	0.85
1:A:3792:ARG:HB2	1:A:3955:TYR:CD1	2.12	0.85
1:A:3024:LEU:CD1	1:A:3303:LYS:HG3	2.06	0.85
1:B:1823:ASP:CB	1:B:1852:ARG:O	2.23	0.85
1:B:1956:LEU:HB3	1:B:1968:PHE:CE2	2.12	0.85
1:A:3851:VAL:HG13	1:A:3855:LEU:HD23	1.59	0.84
1:A:1926:SER:CB	1:A:1970:LEU:HD12	2.08	0.84
1:B:1983:LEU:CG	1:B:1993:THR:HG23	2.04	0.84
1:B:2412:ARG:HH11	1:B:2553:HIS:HA	1.35	0.84
1:A:2765:GLY:HA2	3:A:5402:ADP:O2A	1.76	0.84
1:B:1620:PHE:CD1	1:B:1760:PHE:HZ	1.92	0.84
1:B:2225:LYS:HA	2:B:5400:ATP:C2	2.12	0.84
1:B:2003:LEU:HA	1:B:2006:LEU:HD12	1.58	0.84
1:A:1645:PHE:CB	1:A:1765:ILE:HG22	2.08	0.84
1:B:2779:LEU:HD23	1:B:2812:ARG:O	1.78	0.84
1:A:1562:MET:HB3	1:A:1569:ILE:HD11	1.60	0.83
1:A:1649:LEU:CD1	1:A:1704:GLU:HG3	2.08	0.83
1:A:2755:HIS:HB2	1:A:2911:ARG:O	1.78	0.83
1:A:1924:PRO:HB2	1:A:1929:ILE:HD11	1.61	0.83
1:A:2785:LYS:HD2	1:A:3482:GLY:O	1.78	0.83
1:B:1421:TYR:CE1	1:B:1425:GLU:HG2	2.10	0.83
1:B:1394:LEU:HD22	1:B:1449:GLN:HE22	1.43	0.83
1:B:2488:GLU:CB	1:B:2491:LEU:HD12	2.04	0.83
1:B:2787:HIS:HA	1:B:3460:PRO:CD	2.08	0.83
1:A:2763:ARG:O	3:A:5402:ADP:H8	1.62	0.83
1:A:1574:PHE:HB3	1:A:1576:GLU:H	1.43	0.83
1:B:1392:LEU:HD13	1:B:1393:LYS:N	1.94	0.83
1:B:2960:THR:HB	1:B:2963:ASP:HB2	1.61	0.83
1:B:3923:VAL:HG23	1:B:4038:GLU:HA	1.60	0.83
1:A:2107:LYS:HE2	1:A:2499:SER:HB3	1.59	0.82
1:B:2131:THR:HG22	1:B:2176:LEU:HD21	1.61	0.82
1:B:1409:LEU:HD21	1:B:1435:LEU:CB	2.08	0.82
1:A:1640:VAL:HB	1:A:1686:LYS:HZ1	1.42	0.82
1:A:2173:ASN:HB3	1:A:2175:ILE:HG22	1.61	0.82
1:B:2513:GLN:O	1:B:2526:ILE:HG13	1.79	0.82
1:A:2563:SER:HB3	1:A:2566:SER:H	1.44	0.82
1:B:3919:LYS:HZ3	1:B:4038:GLU:CD	1.83	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3406:PHE:HB2	1:A:3513:VAL:HG11	1.62	0.81
1:A:2517:LYS:CE	1:A:2524:VAL:HG21	2.11	0.81
1:A:2137:VAL:O	1:A:2141:ILE:HG23	1.78	0.81
1:A:1996:GLU:O	1:A:2000:ARG:HG3	1.78	0.81
1:A:1965:HIS:HD2	1:A:2212:LEU:HD21	1.46	0.81
1:B:2386:MET:CB	1:B:2627:ARG:CD	2.59	0.81
1:B:1421:TYR:O	1:B:1425:GLU:CB	2.28	0.81
1:A:1392:LEU:HD13	1:A:1393:LYS:N	1.96	0.81
1:B:3534:LEU:HD11	1:B:3614:LEU:HD23	1.62	0.80
1:A:1421:TYR:HE1	1:A:1425:GLU:CD	1.83	0.80
1:A:3816:LEU:HD23	1:A:3847:SER:OG	1.81	0.80
1:B:1744:LEU:HA	1:B:1760:PHE:CD2	2.16	0.80
1:A:1535:PRO:C	1:A:1841:ILE:HD11	2.02	0.80
1:A:1983:LEU:CG	1:A:1993:THR:HG23	2.10	0.80
1:B:2332:GLY:HA2	1:B:2335:GLN:HB2	1.64	0.80
1:A:3979:ASN:O	1:A:3981:PRO:HD2	1.81	0.80
1:B:1387:GLU:HB3	1:B:1393:LYS:HG2	1.61	0.80
1:B:3946:VAL:CG1	1:B:3950:PHE:O	2.30	0.80
1:A:1983:LEU:HD23	1:A:1993:THR:O	1.81	0.79
1:A:2109:LEU:CD1	1:A:2129:LEU:HD22	2.12	0.79
1:B:2732:MET:HE1	1:B:2768:ILE:CG2	1.96	0.79
1:B:1604:ALA:HA	1:B:1607:TRP:CD1	2.17	0.79
1:A:3024:LEU:HD11	1:A:3303:LYS:CG	2.12	0.79
1:A:1706:LEU:HD22	1:A:1935:GLN:HG2	1.65	0.79
1:A:1999:LYS:HG2	1:A:2014:PHE:HE1	1.43	0.79
1:A:2175:ILE:HG12	1:A:2183:ARG:HB3	1.65	0.79
1:B:2472:THR:CG2	1:B:2524:VAL:HG22	2.12	0.79
1:A:216:PRO:C	1:A:1365:PHE:HA	2.04	0.78
1:A:2424:LYS:HZ1	3:A:5401:ADP:PB	2.06	0.78
1:B:3530:PHE:CD1	1:B:3618:TYR:CD2	2.71	0.78
1:A:1462:ASN:HB2	1:A:1465:ILE:HG22	1.65	0.78
1:B:2111:LYS:NZ	1:B:2161:GLU:HG2	1.98	0.78
1:B:2080:LYS:HE2	2:B:5400:ATP:O1B	1.84	0.78
1:B:2707:VAL:HB	1:B:2712:LEU:CD1	2.10	0.78
1:A:3618:TYR:CD1	1:A:3618:TYR:N	2.50	0.78
1:B:1992:LYS:HE2	1:B:2024:SER:O	1.84	0.78
1:A:3792:ARG:HB2	1:A:3955:TYR:CE1	2.19	0.78
1:B:3690:LEU:HD23	1:B:3694:PHE:HB3	1.66	0.78
1:A:2181:GLY:O	1:A:2182:GLU:HG3	1.84	0.77
1:B:2274:HIS:HE1	1:B:2326:LEU:O	1.67	0.77
1:B:2448:ASP:HB2	1:B:2829:GLU:OE1	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4065:LEU:HD11	1:B:4070:ILE:HD11	1.65	0.77
1:A:1421:TYR:O	1:A:1425:GLU:CB	2.31	0.77
1:A:1405:CYS:O	1:A:1409:LEU:HG	1.84	0.77
1:A:2332:GLY:HA2	1:A:2335:GLN:HB2	1.64	0.77
1:A:3530:PHE:CD1	1:A:3618:TYR:CD2	2.72	0.77
1:B:1425:GLU:OE2	1:B:1429:LEU:CG	2.32	0.77
1:B:1996:GLU:O	1:B:2000:ARG:HG3	1.85	0.77
1:B:2446:SER:H	1:B:2449:THR:HG23	1.49	0.77
1:B:2787:HIS:HA	1:B:3460:PRO:CG	2.15	0.77
1:A:2446:SER:H	1:A:2449:THR:CG2	1.97	0.77
1:B:3534:LEU:HD13	1:B:3618:TYR:HE2	1.49	0.77
1:A:3998:ILE:CG2	1:A:4004:LEU:HG	2.14	0.76
1:A:1495:THR:HG22	1:A:1497:ILE:HG22	1.67	0.76
1:A:3306:TRP:CZ2	1:A:3594:ALA:CB	2.69	0.76
1:B:2476:LYS:CD	1:B:2476:LYS:H	1.98	0.76
1:B:3303:LYS:O	1:B:3306:TRP:HD1	1.68	0.76
1:A:3330:TYR:OH	1:A:3346:LEU:HD22	1.85	0.76
1:A:1983:LEU:CD2	1:A:1993:THR:O	2.34	0.76
1:A:2111:LYS:NZ	1:A:2161:GLU:HG2	2.00	0.76
1:A:1802:LYS:HG3	4:A:5403:SO4:O2	1.86	0.76
1:B:1983:LEU:CD2	1:B:1993:THR:O	2.34	0.76
1:B:2517:LYS:HD2	1:B:2524:VAL:CG2	2.15	0.76
1:B:3774:ILE:O	1:B:3778:VAL:HG23	1.85	0.76
1:B:1983:LEU:HG	1:B:1993:THR:CG2	2.07	0.76
1:A:3692:LYS:HE3	1:A:3898:GLU:HB3	1.68	0.76
1:B:2707:VAL:CG1	1:B:2712:LEU:CD1	2.64	0.76
1:A:1387:GLU:HB3	1:A:1393:LYS:HG2	1.68	0.76
1:A:2728:LEU:HD12	1:A:2771:ARG:NH2	2.00	0.76
1:A:3737:THR:HB	1:A:3740:THR:CB	2.15	0.75
1:A:1939:PHE:HD1	1:A:1940:GLU:O	1.69	0.75
1:B:2378:VAL:HG22	1:B:2380:LEU:HD12	1.66	0.75
1:B:2737:SER:HB2	1:B:2924:THR:HG21	1.68	0.75
1:B:2473:LEU:HD11	1:B:2527:GLU:CG	2.16	0.75
1:A:2513:GLN:O	1:A:2526:ILE:HG13	1.86	0.75
1:B:3799:LYS:O	1:B:3803:LEU:HG	1.87	0.75
1:B:2787:HIS:HA	1:B:3460:PRO:HG2	1.68	0.75
1:B:2732:MET:HA	3:B:5402:ADP:C2	2.22	0.75
1:A:1531:ARG:HG2	1:A:1537:PHE:HB3	1.68	0.74
1:A:1604:ALA:HA	1:A:1607:TRP:NE1	2.02	0.74
1:A:3785:TYR:HE1	1:A:3859:VAL:HG22	1.52	0.74
1:A:3700:MET:HB3	1:A:4085:THR:HG21	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3923:VAL:HG23	1:A:4038:GLU:HA	1.69	0.74
1:A:2336:ARG:HD3	1:A:2355:ASP:OD2	1.87	0.74
1:A:2728:LEU:HD12	1:A:2771:ARG:CZ	2.17	0.74
1:A:1421:TYR:CE1	1:A:1425:GLU:CD	2.61	0.74
1:B:2473:LEU:CD2	1:B:2475:PRO:CG	2.66	0.74
1:A:2106:THR:OG1	1:A:2154:PHE:HB3	1.87	0.74
1:A:2424:LYS:NZ	3:A:5401:ADP:PB	2.61	0.74
1:B:1535:PRO:HB2	1:B:1841:ILE:HD11	1.68	0.74
1:B:2380:LEU:HD21	1:B:2390:ILE:HD11	0.82	0.74
1:B:2420:PRO:HD3	1:B:2536:ASN:HD21	1.51	0.74
1:B:2473:LEU:HD22	1:B:2475:PRO:HD3	1.69	0.74
1:B:1536:ARG:N	1:B:1841:ILE:HD11	2.03	0.73
1:B:1425:GLU:OE2	1:B:1429:LEU:HG	1.87	0.73
1:B:2080:LYS:HG2	2:B:5400:ATP:PB	2.27	0.73
1:B:3330:TYR:OH	1:B:3346:LEU:HD22	1.88	0.73
1:A:2763:ARG:HE	3:A:5402:ADP:H4'	1.53	0.73
1:A:3618:TYR:HD1	1:A:3618:TYR:N	1.86	0.73
1:B:1953:LEU:HD11	1:B:1973:LEU:HB3	1.69	0.73
1:B:2517:LYS:HD2	1:B:2524:VAL:HG21	1.69	0.73
1:A:3304:GLU:O	1:A:3307:LEU:CG	2.37	0.73
1:B:1365:PHE:HD1	1:B:1366:VAL:H	1.11	0.73
1:B:1910:GLU:HB2	1:B:3846:MET:CB	2.18	0.73
1:A:2493:LYS:HG3	1:A:2494:LEU:H	1.53	0.73
1:B:2853:LEU:HD21	1:B:2870:GLU:HG3	1.69	0.73
1:A:3566:LEU:O	1:A:3570:LEU:HG	1.89	0.73
1:B:1574:PHE:HB3	1:B:1576:GLU:H	1.54	0.73
1:B:1826:PHE:CE2	1:B:1853:LEU:HD22	2.23	0.73
1:A:1929:ILE:HD13	1:A:1970:LEU:CD1	2.18	0.72
1:A:3679:TYR:HB3	1:A:3767:PHE:HE1	1.53	0.72
1:B:2112:GLU:HB3	1:B:2117:SER:CB	2.18	0.72
1:B:3839:ILE:HG23	1:B:3873:MET:HG3	1.71	0.72
1:B:1967:HIS:O	1:B:1968:PHE:HD1	1.72	0.72
1:A:1649:LEU:HD11	1:A:1704:GLU:HG3	1.70	0.72
1:A:2787:HIS:CA	1:A:3460:PRO:HD2	2.18	0.72
1:A:3799:LYS:O	1:A:3803:LEU:HG	1.89	0.72
1:B:3566:LEU:CD1	1:B:3570:LEU:HD11	2.19	0.72
1:B:1983:LEU:HD21	1:B:1993:THR:O	1.90	0.72
1:B:2446:SER:H	1:B:2449:THR:CG2	2.03	0.72
1:A:1981:SER:HB3	1:A:1982:PRO:HD3	1.71	0.72
1:A:2787:HIS:HA	1:A:3460:PRO:CG	2.18	0.72
1:A:3848:LEU:HD21	1:A:3852:LYS:HE3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2755:HIS:HB2	1:B:2911:ARG:O	1.90	0.72
1:B:2762:SER:C	1:B:2764:THR:H	1.94	0.72
1:B:2080:LYS:NZ	2:B:5400:ATP:O3G	2.23	0.72
1:B:2425:THR:HB	3:B:5401:ADP:O2A	1.90	0.72
1:B:2106:THR:OG1	1:B:2154:PHE:HB3	1.89	0.71
1:B:3566:LEU:HA	1:B:3583:LEU:CD2	2.20	0.71
1:A:1707:HIS:O	1:A:1711:VAL:HG23	1.89	0.71
1:B:2424:LYS:NZ	3:B:5401:ADP:O2B	2.23	0.71
1:A:1535:PRO:HB2	1:A:1841:ILE:CG1	2.18	0.71
1:B:1956:LEU:HB3	1:B:1968:PHE:HE2	1.50	0.71
1:B:2472:THR:HG21	1:B:2524:VAL:HG22	1.70	0.71
1:A:3302:GLU:O	1:A:3305:ARG:HB2	1.90	0.71
1:A:3946:VAL:CG1	1:A:3950:PHE:O	2.36	0.71
1:B:3566:LEU:O	1:B:3570:LEU:HG	1.90	0.71
1:A:2112:GLU:HB3	1:A:2117:SER:HB2	1.72	0.71
1:A:2315:THR:HG21	1:A:2350:SER:HB3	1.72	0.71
1:A:2448:ASP:HB2	1:A:2829:GLU:OE1	1.90	0.71
1:B:3303:LYS:HA	1:B:3306:TRP:HD1	1.49	0.71
1:B:3406:PHE:HB2	1:B:3513:VAL:HG12	1.72	0.71
1:A:1849:GLU:HG2	1:A:1899:ASN:ND2	2.05	0.71
1:A:2446:SER:H	1:A:2449:THR:HG23	1.56	0.71
1:B:1392:LEU:HD13	1:B:1392:LEU:C	2.11	0.71
1:B:2761:ALA:O	1:B:2892:CYS:CB	2.37	0.71
1:A:2226:ILE:HG23	1:A:2288:VAL:HG21	1.71	0.71
1:A:4020:ASN:HB3	1:A:4028:ARG:HH21	1.56	0.71
1:A:1726:LEU:CD1	1:A:3984:GLN:HB3	2.20	0.71
1:A:2765:GLY:HA2	3:A:5402:ADP:O3A	1.89	0.71
1:B:1849:GLU:HG2	1:B:1899:ASN:HD22	1.54	0.71
1:B:3618:TYR:CD1	1:B:3618:TYR:N	2.57	0.71
1:B:1926:SER:HB2	1:B:1970:LEU:HD12	1.72	0.71
1:B:2473:LEU:HD11	1:B:2527:GLU:HG2	1.72	0.71
1:A:1409:LEU:HD21	1:A:1435:LEU:HB2	1.72	0.71
1:A:1630:ILE:HG22	1:A:1655:MET:SD	2.31	0.71
1:A:1995:VAL:HG21	1:A:2024:SER:HB3	1.72	0.71
1:A:1726:LEU:HD12	1:A:3984:GLN:HB3	1.72	0.71
1:B:1394:LEU:HD22	1:B:1449:GLN:NE2	2.05	0.70
1:B:2473:LEU:HD22	1:B:2475:PRO:HG3	1.73	0.70
1:A:3737:THR:OG1	1:A:3740:THR:HB	1.90	0.70
1:A:3473:ALA:HB3	1:A:3476:ARG:O	1.90	0.70
1:A:2620:ARG:NH2	3:A:5401:ADP:PA	2.64	0.70
1:A:2779:LEU:HD23	1:A:2812:ARG:O	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3566:LEU:HA	1:A:3583:LEU:CD2	2.21	0.70
1:A:2252:LEU:HD21	1:A:2310:LEU:HD23	1.74	0.70
1:B:2489:ILE:HG22	1:B:2535:CYS:HB3	1.72	0.70
1:B:2631:THR:O	1:B:2635:THR:HG22	1.92	0.70
1:B:2220:CYS:SG	1:B:2224:SER:HB2	2.32	0.70
1:B:3303:LYS:HD2	1:B:3306:TRP:CD1	2.27	0.70
1:A:2763:ARG:HE	3:A:5402:ADP:C4'	2.04	0.70
1:A:4033:LEU:CD1	1:A:4035:GLN:CB	2.65	0.70
1:A:1455:LEU:HD12	1:A:1516:LEU:HD23	1.74	0.70
1:A:2141:ILE:CG2	1:A:2145:PHE:HB2	2.19	0.70
1:B:2707:VAL:CG1	1:B:2712:LEU:HD12	2.21	0.70
1:A:1540:LEU:CD1	1:A:1548:ILE:HD11	2.22	0.70
1:A:3304:GLU:O	1:A:3307:LEU:CB	2.40	0.70
1:B:1630:ILE:CG2	1:B:1655:MET:SD	2.78	0.70
1:B:2111:LYS:HZ3	1:B:2161:GLU:HG2	1.55	0.70
1:B:3409:ASP:HB3	1:B:3518:PHE:HB2	1.73	0.70
1:B:3645:SER:HB3	1:B:3890:GLN:NE2	2.07	0.70
1:B:3845:GLN:OE1	1:B:3878:HIS:HB2	1.91	0.70
1:A:2063:MET:HB3	1:A:2070:LEU:HD11	1.74	0.70
1:B:3737:THR:OG1	1:B:3740:THR:HB	1.92	0.70
1:A:2476:LYS:HG2	1:A:2478:ASP:O	1.90	0.69
1:A:3307:LEU:CD1	1:A:3307:LEU:C	2.57	0.69
1:A:3406:PHE:HB2	1:A:3513:VAL:HG12	1.74	0.69
1:B:1540:LEU:CD1	1:B:1548:ILE:CD1	2.69	0.69
1:B:2080:LYS:HE2	2:B:5400:ATP:PB	2.32	0.69
1:B:2378:VAL:CG2	1:B:2380:LEU:HD11	2.23	0.69
1:B:3024:LEU:HD11	1:B:3303:LYS:CG	2.19	0.69
1:A:3777:VAL:CG1	1:A:3895:PHE:CE1	2.51	0.69
1:B:2728:LEU:HD12	1:B:2771:ARG:HH22	1.57	0.69
1:A:1744:LEU:HA	1:A:1760:PHE:CD2	2.27	0.69
1:B:1612:ASP:HA	1:B:1615:ILE:CD1	2.22	0.69
1:B:3566:LEU:HD13	1:B:3570:LEU:HD11	1.74	0.69
1:A:1415:MET:O	1:A:1421:TYR:CD2	2.46	0.69
1:A:2766:LYS:HE2	1:A:2890:THR:HB	1.73	0.69
1:B:2563:SER:HB2	1:B:2566:SER:OG	1.91	0.69
1:B:2732:MET:CE	1:B:2768:ILE:HG23	1.99	0.69
1:B:1995:VAL:HG21	1:B:2024:SER:HB3	1.75	0.69
1:A:3534:LEU:HD13	1:A:3618:TYR:HE2	1.58	0.69
1:B:3777:VAL:CG1	1:B:3895:PHE:CE1	2.68	0.69
1:B:1604:ALA:HA	1:B:1607:TRP:NE1	2.07	0.69
1:A:1794:PHE:HD1	1:A:1802:LYS:HB3	1.56	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1365:PHE:HE1	1:B:1366:VAL:CG2	2.04	0.68
1:B:2476:LYS:HD2	1:B:2476:LYS:H	1.57	0.68
1:B:2312:ASP:HB3	1:B:2351:GLN:HG3	1.76	0.68
1:A:2707:VAL:CG1	1:A:2712:LEU:CD1	2.71	0.68
1:B:2572:GLU:CD	1:B:2590:GLU:HG3	2.14	0.68
1:A:3534:LEU:HD13	1:A:3618:TYR:CE2	2.28	0.68
1:A:2282:ASN:CB	1:A:2552:ARG:HG3	2.20	0.68
1:A:2846:GLY:O	1:A:2849:TYR:HB3	1.93	0.68
1:B:1366:VAL:HG13	1:B:1369:LYS:HE3	1.75	0.68
1:B:1562:MET:CB	1:B:1569:ILE:HD11	2.23	0.68
1:B:1938:GLY:O	1:B:1989:GLU:HB3	1.93	0.68
1:B:1984:ILE:HG21	1:B:1989:GLU:HG3	1.74	0.68
1:B:3912:GLY:O	1:B:3915:PHE:CE2	2.46	0.68
1:A:1612:ASP:HA	1:A:1615:ILE:CD1	2.24	0.68
1:B:2476:LYS:HG2	1:B:2478:ASP:O	1.93	0.68
1:B:3460:PRO:O	1:B:3463:SER:HB2	1.94	0.68
1:B:3473:ALA:HB3	1:B:3476:ARG:O	1.93	0.68
1:A:1392:LEU:HD13	1:A:1392:LEU:C	2.14	0.68
1:A:3935:PHE:HB2	1:A:4014:VAL:HG11	1.76	0.68
3:B:5401:ADP:N3	3:B:5401:ADP:H2'	2.09	0.68
1:A:1489:ARG:HH12	1:A:1503:PRO:HG2	1.58	0.68
1:A:2787:HIS:HA	1:A:3460:PRO:HG2	1.76	0.68
1:B:1569:ILE:HA	1:B:1584:SER:HA	1.76	0.68
1:A:1569:ILE:HA	1:A:1584:SER:HA	1.75	0.67
1:A:3979:ASN:C	1:A:3981:PRO:HD2	2.14	0.67
1:B:2176:LEU:O	1:B:2183:ARG:HA	1.94	0.67
1:A:1926:SER:HA	1:A:1970:LEU:HD12	1.76	0.67
1:A:3509:LEU:CD1	1:A:3513:VAL:HG21	2.24	0.67
1:B:2080:LYS:NZ	1:B:2549:ARG:CZ	2.57	0.67
1:B:2386:MET:HB2	1:B:2627:ARG:HD2	1.75	0.67
1:B:3566:LEU:HD13	1:B:3570:LEU:CD1	2.23	0.67
1:A:2141:ILE:HG22	1:A:2145:PHE:CB	2.22	0.67
1:A:2763:ARG:NE	3:A:5402:ADP:H4'	2.10	0.67
1:A:1910:GLU:HB2	1:A:3846:MET:CB	2.23	0.67
1:B:2220:CYS:SG	1:B:2224:SER:CB	2.82	0.67
1:B:1365:PHE:HD1	1:B:1366:VAL:HG23	0.91	0.67
1:B:3303:LYS:O	1:B:3306:TRP:CD1	2.48	0.67
1:A:4065:LEU:HD11	1:A:4070:ILE:HD11	1.76	0.67
1:A:3886:ALA:N	1:A:3887:PRO:HD2	2.09	0.67
1:A:4021:LEU:HD23	1:A:4023:ILE:HG13	1.76	0.67
1:B:1827:ASP:HB3	1:B:1830:VAL:HG12	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2282:ASN:HB3	1:B:2552:ARG:HG3	1.75	0.67
1:B:2768:ILE:HG22	3:B:5402:ADP:O2A	1.94	0.67
1:A:2476:LYS:H	1:A:2476:LYS:HD2	1.60	0.67
1:B:2080:LYS:HG3	1:B:2081:THR:N	2.10	0.67
1:A:1531:ARG:HG2	1:A:1537:PHE:CB	2.24	0.67
1:A:2941:THR:HG22	1:A:2942:ASP:H	1.59	0.67
1:A:2745:ILE:HG12	1:A:2756:MET:HE3	1.76	0.67
1:A:3871:PHE:CZ	1:A:3873:MET:HB2	2.30	0.67
1:A:3998:ILE:HG21	1:A:4004:LEU:HG	1.77	0.67
1:B:2728:LEU:CD1	1:B:2771:ARG:HH22	2.08	0.67
1:B:2745:ILE:HG23	1:B:2756:MET:CE	2.25	0.67
1:B:3792:ARG:HB2	1:B:3955:TYR:CE1	2.29	0.67
1:B:2762:SER:O	1:B:2764:THR:N	2.28	0.66
1:A:3322:GLY:HA2	1:A:3325:ILE:HD12	1.77	0.66
1:B:1802:LYS:N	4:B:5403:SO4:O1	2.28	0.66
1:A:2707:VAL:CG1	1:A:2712:LEU:HD11	2.25	0.66
1:B:2080:LYS:CG	2:B:5400:ATP:O1B	2.44	0.66
1:A:3566:LEU:HA	1:A:3583:LEU:HD21	1.76	0.66
1:A:2407:LEU:HD22	1:A:2412:ARG:NH1	2.09	0.66
1:A:2620:ARG:NH2	3:A:5401:ADP:O3A	2.29	0.66
1:B:1612:ASP:HA	1:B:1615:ILE:HD11	1.78	0.66
1:B:2141:ILE:HG22	1:B:2145:PHE:HB2	1.78	0.66
1:B:3871:PHE:CZ	1:B:3873:MET:HB2	2.31	0.66
1:A:2938:MET:SD	1:A:3321:ILE:HG21	2.35	0.66
1:A:3303:LYS:HD2	1:A:3306:TRP:CB	2.25	0.66
1:B:2044:ARG:HH21	1:B:2093:ILE:HD11	1.61	0.65
1:A:2241:LEU:HD13	1:A:2299:ARG:HH11	1.61	0.65
1:A:1645:PHE:CB	1:A:1765:ILE:CG2	2.71	0.65
1:B:1409:LEU:CD2	1:B:1435:LEU:HB3	2.19	0.65
1:B:3010:LEU:HD21	1:B:3317:SER:HB3	1.77	0.65
1:B:4017:GLY:HA3	1:B:4021:LEU:HD12	1.77	0.65
1:A:2476:LYS:NZ	1:A:2528:ARG:HD2	2.11	0.65
1:A:1394:LEU:HD22	1:A:1449:GLN:HE22	1.62	0.65
1:A:1421:TYR:CE1	1:A:1425:GLU:OE1	2.48	0.65
1:A:1967:HIS:C	1:A:1968:PHE:HD1	2.00	0.65
1:A:3306:TRP:CE3	1:A:3306:TRP:HA	2.31	0.65
1:B:2386:MET:HB3	1:B:2627:ARG:HE	1.60	0.65
1:A:2517:LYS:HE2	1:A:2524:VAL:HG21	1.78	0.65
1:A:1774:LEU:HD21	1:A:1922:LYS:O	1.96	0.65
1:A:2476:LYS:H	1:A:2476:LYS:HD3	1.62	0.65
1:B:1939:PHE:HD1	1:B:1940:GLU:O	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2458:LEU:HD11	1:B:2484:LEU:HD11	1.78	0.65
1:B:3877:CYS:SG	1:B:3884:LEU:HD22	2.36	0.65
1:A:2112:GLU:HB3	1:A:2117:SER:CB	2.27	0.65
1:B:1822:CYS:SG	1:B:1849:GLU:O	2.55	0.65
1:B:1929:ILE:HD13	1:B:1970:LEU:HD11	1.79	0.65
1:B:3737:THR:HB	1:B:3740:THR:CB	2.27	0.65
1:A:1999:LYS:CG	1:A:2014:PHE:HE1	2.10	0.65
1:A:2109:LEU:CD1	1:A:2129:LEU:CD2	2.74	0.65
1:A:3810:SER:O	1:A:3838:TRP:HB2	1.97	0.64
1:B:1991:GLU:O	1:B:1995:VAL:HG23	1.97	0.64
1:B:2412:ARG:HH11	1:B:2553:HIS:CA	2.09	0.64
1:B:2728:LEU:HD12	1:B:2771:ARG:NH2	2.12	0.64
1:B:3837:GLY:O	1:B:3871:PHE:HD1	1.80	0.64
1:A:1562:MET:CB	1:A:1569:ILE:HD11	2.26	0.64
1:A:1965:HIS:CD2	1:A:2212:LEU:HD21	2.32	0.64
1:A:3306:TRP:HE3	1:A:3306:TRP:HA	1.63	0.64
1:B:2080:LYS:HG3	1:B:2081:THR:H	1.60	0.64
1:B:3406:PHE:HB2	1:B:3513:VAL:HG11	1.79	0.64
1:A:2203:THR:HG22	1:A:2205:ALA:H	1.61	0.64
1:A:3440:LEU:CD2	1:A:3462:ILE:HD12	2.27	0.64
1:A:3787:THR:HG22	1:A:3875:MET:HB2	1.78	0.64
1:B:1405:CYS:O	1:B:1409:LEU:HG	1.98	0.64
1:B:2411:LYS:HG2	1:B:2530:HIS:HE1	1.62	0.64
1:B:2707:VAL:CG1	1:B:2712:LEU:HD11	2.26	0.64
1:B:3618:TYR:HD1	1:B:3618:TYR:N	1.94	0.64
1:A:2421:GLY:N	3:A:5401:ADP:O2B	2.29	0.64
1:A:2765:GLY:CA	3:A:5402:ADP:O3A	2.46	0.64
1:B:2181:GLY:O	1:B:2182:GLU:HG3	1.97	0.64
1:A:1664:LEU:HD23	1:A:1669:PHE:HZ	1.61	0.64
1:A:1917:ARG:HD2	1:A:3963:PHE:CZ	2.33	0.64
1:A:2151:TRP:HE3	1:A:2193:LEU:HD11	1.61	0.64
1:B:2386:MET:HB3	1:B:2627:ARG:NE	2.13	0.64
1:B:3631:MET:CE	1:B:3698:MET:HG3	2.28	0.64
1:B:3871:PHE:HZ	1:B:3873:MET:HB2	1.63	0.64
1:A:3010:LEU:HD21	1:A:3317:SER:HB3	1.79	0.64
1:A:3833:LYS:HZ3	1:A:3862:THR:HG21	1.62	0.64
1:B:1489:ARG:HH12	1:B:1503:PRO:HG2	1.63	0.64
1:B:2437:LEU:HA	1:B:2480:LYS:HD3	1.80	0.64
1:A:2224:SER:O	2:A:5400:ATP:H2	1.80	0.64
1:B:1681:LYS:HE2	1:B:1939:PHE:HZ	1.62	0.64
1:A:1527:LEU:CD2	1:A:1545:LEU:HD22	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3509:LEU:CD1	1:B:3513:VAL:HG21	2.28	0.64
1:B:3688:THR:HG21	1:B:3777:VAL:HG21	1.80	0.64
1:A:2380:LEU:HD12	1:A:2577:ALA:HB1	1.80	0.64
1:A:3737:THR:CB	1:A:3740:THR:HB	2.27	0.64
1:B:2080:LYS:HZ2	1:B:2549:ARG:CZ	2.11	0.64
1:B:3519:VAL:HG13	1:B:3521:ASN:ND2	2.13	0.64
1:B:1493:LEU:HD23	1:B:1498:GLU:HB3	1.79	0.64
1:B:1531:ARG:HG2	1:B:1537:PHE:HB3	1.78	0.64
1:A:1527:LEU:HD22	1:A:1545:LEU:HD22	1.80	0.63
1:B:1681:LYS:HE2	1:B:1939:PHE:CZ	2.33	0.63
1:A:3871:PHE:HZ	1:A:3873:MET:HB2	1.63	0.63
1:B:2787:HIS:CA	1:B:3460:PRO:HD2	2.24	0.63
1:A:3307:LEU:CD1	1:A:3307:LEU:O	2.44	0.63
1:A:2424:LYS:NZ	3:A:5401:ADP:O1B	2.30	0.63
1:A:1612:ASP:HA	1:A:1615:ILE:HD11	1.79	0.63
1:A:1536:ARG:N	1:A:1841:ILE:HD11	2.12	0.63
1:A:3566:LEU:CD1	1:A:3570:LEU:HD11	2.27	0.63
1:A:2290:LEU:HD23	1:A:2321:SER:HA	1.80	0.63
1:A:3302:GLU:O	1:A:3305:ARG:N	2.31	0.63
1:A:3541:MET:HA	1:A:3544:LYS:HG2	1.81	0.63
1:B:1911:ASN:OD1	1:B:1912:LEU:N	2.31	0.63
1:B:2732:MET:HB2	3:B:5402:ADP:C2	2.32	0.63
1:B:3534:LEU:HD13	1:B:3618:TYR:CE2	2.27	0.63
1:A:1741:LEU:O	1:A:1742:ASP:HB2	1.98	0.63
1:B:2493:LYS:HG3	1:B:2494:LEU:H	1.63	0.63
1:B:3592:LYS:O	1:B:3596:ASN:HB2	1.99	0.63
1:A:1611:LEU:O	1:A:1615:ILE:HG23	1.98	0.63
1:A:3566:LEU:HD13	1:A:3570:LEU:CD1	2.29	0.63
1:B:1421:TYR:O	1:B:1425:GLU:N	2.32	0.63
1:A:1926:SER:HB2	1:A:1970:LEU:HD12	1.79	0.63
1:B:2766:LYS:HE2	1:B:2890:THR:HB	1.80	0.63
1:B:3886:ALA:N	1:B:3887:PRO:HD2	2.13	0.63
1:A:1365:PHE:CE2	1:A:1366:VAL:HG21	2.29	0.62
1:A:1620:PHE:CZ	1:A:1743:ASP:HB3	2.33	0.62
1:A:1967:HIS:O	1:A:1968:PHE:HD1	1.81	0.62
1:A:2176:LEU:O	1:A:2183:ARG:HA	1.98	0.62
1:A:2637:PRO:O	1:A:2639:GLN:NE2	2.32	0.62
1:A:3698:MET:O	1:A:3702:MET:HG3	1.98	0.62
1:B:2315:THR:HG21	1:B:2350:SER:HB3	1.81	0.62
1:B:3401:GLN:C	1:B:3403:ALA:H	2.00	0.62
1:A:1822:CYS:SG	1:A:1849:GLU:O	2.57	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1926:SER:CA	1:A:1970:LEU:HD12	2.29	0.62
1:A:2293:HIS:NE2	1:A:2409:ASN:HB3	2.14	0.62
1:A:2536:ASN:HB2	1:A:2543:ARG:HE	1.64	0.62
1:B:2034:ILE:HD12	1:B:2061:TYR:CZ	2.34	0.62
1:B:3303:LYS:CA	1:B:3306:TRP:HD1	2.11	0.62
1:B:2225:LYS:HA	2:B:5400:ATP:H2	1.64	0.62
1:A:1416:LYS:HA	1:A:1421:TYR:OH	1.99	0.62
1:A:2677:VAL:HG11	1:A:2686:LEU:HD21	1.81	0.62
1:A:2741:HIS:HA	1:A:2744:ARG:HD2	1.81	0.62
1:B:2764:THR:O	3:B:5402:ADP:C8	2.52	0.62
1:B:4024:VAL:HG23	1:B:4027:VAL:H	1.64	0.62
1:B:1645:PHE:CB	1:B:1765:ILE:CG2	2.66	0.62
1:B:1849:GLU:HG2	1:B:1899:ASN:ND2	2.14	0.62
1:B:2637:PRO:O	1:B:2639:GLN:NE2	2.32	0.62
1:A:1999:LYS:CG	1:A:2014:PHE:CE1	2.79	0.62
1:A:1995:VAL:HG22	1:A:2022:PHE:CD2	2.34	0.62
1:B:2536:ASN:HB2	1:B:2543:ARG:HE	1.64	0.62
1:A:1965:HIS:HD2	1:A:2212:LEU:CD2	2.11	0.62
1:B:1394:LEU:CD2	1:B:1449:GLN:HE22	2.12	0.62
1:B:2080:LYS:NZ	1:B:2549:ARG:HH21	1.95	0.62
1:B:3350:LYS:HA	1:B:3353:LEU:HD12	1.82	0.62
1:B:1493:LEU:HD23	1:B:1498:GLU:CB	2.28	0.62
1:B:1540:LEU:CD1	1:B:1548:ILE:HD11	2.29	0.62
1:A:1940:GLU:HG3	1:A:1941:ASP:H	1.63	0.62
1:A:1979:ASN:OD1	1:A:2066:THR:HG21	2.00	0.62
1:A:2624:ARG:NH2	1:A:2910:ASN:O	2.32	0.62
1:A:3566:LEU:HD13	1:A:3570:LEU:HD11	1.81	0.62
1:A:4033:LEU:HD13	1:A:4035:GLN:CB	2.29	0.62
1:A:1421:TYR:HD1	1:A:1425:GLU:CB	2.05	0.62
1:B:162:LEU:HA	1:B:165:ASP:O	1.99	0.62
1:B:2709:LYS:O	1:B:2713:VAL:HG23	1.99	0.62
1:B:2448:ASP:HB2	1:B:2829:GLU:CD	2.18	0.62
1:B:2920:TRP:CB	1:B:2989:PRO:HG3	2.09	0.62
1:B:1802:LYS:NZ	4:B:5403:SO4:S	2.71	0.62
1:A:1938:GLY:O	1:A:1989:GLU:HB3	2.00	0.62
1:A:2476:LYS:HZ1	1:A:2528:ARG:HD2	1.64	0.62
1:B:1698:ILE:O	1:B:1702:LEU:HG	2.00	0.62
1:B:2084:TRP:HE3	1:B:2088:ILE:HD12	1.64	0.62
1:A:1540:LEU:CD1	1:A:1548:ILE:CD1	2.77	0.61
1:A:1827:ASP:HB3	1:A:1830:VAL:HG12	1.82	0.61
1:B:1391:GLY:HA3	1:B:1484:LYS:NZ	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1620:PHE:HA	1:B:1760:PHE:CE1	2.34	0.61
1:B:1953:LEU:CD1	1:B:1973:LEU:HB3	2.29	0.61
1:B:2081:THR:O	1:B:2085:LYS:HB2	1.99	0.61
1:B:2293:HIS:NE2	1:B:2409:ASN:HB3	2.15	0.61
1:B:2293:HIS:CE1	1:B:2409:ASN:HB3	2.35	0.61
1:B:2760:GLY:O	1:B:2761:ALA:C	2.38	0.61
1:B:3816:LEU:HD23	1:B:3847:SER:OG	2.00	0.61
1:B:3787:THR:HG22	1:B:3875:MET:HB2	1.81	0.61
1:A:1645:PHE:CG	1:A:1765:ILE:HG22	2.35	0.61
1:A:2034:ILE:HD12	1:A:2061:TYR:CZ	2.35	0.61
1:A:3807:SER:O	1:A:3808:LYS:HB2	2.00	0.61
1:B:1967:HIS:C	1:B:1968:PHE:HD1	2.04	0.61
1:B:2032:LYS:O	1:B:2035:VAL:HG12	1.99	0.61
1:B:3017:VAL:HG21	1:B:3313:PHE:CE2	2.36	0.61
1:B:3429:LEU:HD21	1:B:3439:ARG:HB3	1.82	0.61
1:A:1992:LYS:HG2	1:A:2024:SER:HB2	1.76	0.61
1:A:2786:ILE:O	1:A:3460:PRO:HB2	2.00	0.61
1:A:3645:SER:HB3	1:A:3890:GLN:NE2	2.14	0.61
1:B:2131:THR:HG22	1:B:2176:LEU:CD2	2.30	0.61
1:A:1620:PHE:HA	1:A:1760:PHE:HE1	1.64	0.61
1:B:216:PRO:O	1:B:1365:PHE:CB	2.36	0.61
1:B:1983:LEU:HD23	1:B:1993:THR:O	2.00	0.61
1:A:1606:GLU:O	1:A:1610:ILE:HG12	2.01	0.61
1:A:1756:LEU:HD13	1:A:1813:LEU:HD11	1.82	0.61
1:A:1646:GLN:OE1	1:A:1762:TYR:HA	1.99	0.61
1:A:4022:GLN:HA	1:A:4027:VAL:O	2.01	0.61
1:B:3912:GLY:O	1:B:3915:PHE:CZ	2.54	0.61
1:A:1626:CYS:SG	1:A:1639:VAL:HG11	2.41	0.61
1:A:1692:ASP:O	1:A:1695:LYS:HB3	2.00	0.61
1:A:1744:LEU:HA	1:A:1760:PHE:HE2	1.60	0.61
1:A:3459:ASP:OD2	1:A:3461:ILE:HG12	2.00	0.61
1:A:3737:THR:CB	1:A:3740:THR:CB	2.79	0.61
1:A:4033:LEU:HD12	1:A:4035:GLN:N	2.16	0.61
1:A:3308:ASN:C	1:A:3310:THR:N	2.54	0.61
1:B:3785:TYR:CE1	1:B:3859:VAL:HG22	2.36	0.61
1:A:1502:ILE:HG23	1:A:1503:PRO:HD2	1.82	0.60
1:A:1540:LEU:HD12	1:A:1548:ILE:CD1	2.30	0.60
1:A:2391:VAL:HG23	1:A:2426:MET:SD	2.41	0.60
1:A:2512:LYS:O	1:A:2513:GLN:HB2	2.00	0.60
1:A:3303:LYS:CD	1:A:3306:TRP:HB2	2.28	0.60
1:B:1645:PHE:CG	1:B:1765:ILE:HG22	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2512:LYS:O	1:B:2513:GLN:HB2	1.99	0.60
1:B:4024:VAL:HG11	1:B:4062:TRP:CD2	2.36	0.60
1:A:1953:LEU:CD1	1:A:1973:LEU:HB3	2.31	0.60
1:A:2380:LEU:HD12	1:A:2577:ALA:CB	2.31	0.60
1:A:2563:SER:HB2	1:A:2566:SER:OG	2.01	0.60
1:A:3982:TRP:CD1	1:A:4015:PHE:O	2.55	0.60
1:A:2620:ARG:NH2	3:A:5401:ADP:O1A	2.34	0.60
1:A:1425:GLU:HG3	1:A:1428:CYS:SG	2.41	0.60
1:A:1704:GLU:OE2	1:A:1768:ARG:NH1	2.35	0.60
1:B:1425:GLU:OE2	1:B:1429:LEU:HD21	2.02	0.60
1:B:2473:LEU:HD23	1:B:2474:LEU:N	2.17	0.60
1:A:2631:THR:O	1:A:2635:THR:HG22	2.00	0.60
1:B:2445:PHE:HA	1:B:2449:THR:HG21	1.83	0.60
1:B:2788:ARG:HB2	1:B:3459:ASP:HB3	1.82	0.60
1:A:1917:ARG:HD2	1:A:3963:PHE:CE2	2.36	0.60
1:A:4033:LEU:HD12	1:A:4036:GLN:H	1.67	0.60
1:A:2081:THR:O	1:A:2085:LYS:HB2	2.01	0.60
1:B:1534:PHE:HD2	1:B:1537:PHE:CE2	2.20	0.60
1:B:3839:ILE:CG2	1:B:3873:MET:HG3	2.31	0.60
1:B:3919:LYS:HZ3	1:B:4038:GLU:CG	2.14	0.60
1:A:1394:LEU:HD22	1:A:1449:GLN:NE2	2.16	0.60
1:B:3951:SER:HB2	1:B:4002:LYS:HD2	1.83	0.60
1:A:2080:LYS:O	1:A:2084:TRP:CD1	2.54	0.60
1:A:2125:TRP:CZ2	1:A:2178:LEU:HD13	2.37	0.60
1:A:3774:ILE:O	1:A:3778:VAL:HG23	2.02	0.60
1:A:2109:LEU:CD2	1:A:2518:THR:HG22	2.32	0.59
1:A:2290:LEU:HD13	1:A:2407:LEU:HD23	1.84	0.59
1:A:2127:ASP:O	1:A:2131:THR:OG1	2.21	0.59
1:A:2295:ILE:HG12	1:A:2314:ILE:HD12	1.83	0.59
1:A:2332:GLY:HA2	1:A:2335:GLN:CB	2.32	0.59
1:A:3583:LEU:O	1:A:3587:LEU:HG	2.02	0.59
1:B:1849:GLU:CG	1:B:1899:ASN:HD22	2.15	0.59
1:B:3700:MET:HB3	1:B:4085:THR:HG21	1.83	0.59
1:A:1779:PHE:O	1:A:1783:THR:HG22	2.02	0.59
1:A:2002:ILE:HB	1:A:2014:PHE:HE2	1.66	0.59
1:B:1536:ARG:HD2	1:B:1565:MET:O	2.02	0.59
1:B:2141:ILE:HG22	1:B:2145:PHE:CB	2.32	0.59
1:B:2764:THR:O	3:B:5402:ADP:H8	1.85	0.59
1:B:3512:ARG:NH2	3:B:5402:ADP:O3B	2.35	0.59
1:B:3583:LEU:O	1:B:3587:LEU:HG	2.02	0.59
1:B:3817:GLY:H	1:B:3821:ASN:HB2	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2378:VAL:HG22	1:B:2380:LEU:HD13	1.80	0.59
1:A:1409:LEU:CD2	1:A:1435:LEU:HB2	2.32	0.59
1:A:1849:GLU:OE2	1:A:1899:ASN:ND2	2.35	0.59
1:B:1534:PHE:CE2	1:B:1536:ARG:HB2	2.37	0.59
1:B:1781:THR:HG21	1:B:1919:PHE:CD1	2.37	0.59
1:B:2473:LEU:CD2	1:B:2475:PRO:HG3	2.30	0.59
1:B:2732:MET:CB	3:B:5402:ADP:N1	2.54	0.59
1:B:3017:VAL:HG21	1:B:3313:PHE:HE2	1.68	0.59
1:A:2476:LYS:CD	1:A:2476:LYS:N	2.63	0.59
1:B:2428:MET:HE1	1:B:2440:VAL:HG21	1.84	0.59
1:A:1415:MET:O	1:A:1421:TYR:CE2	2.55	0.59
1:A:1640:VAL:HB	1:A:1686:LYS:NZ	2.16	0.59
1:B:2654:ARG:HH22	1:B:2691:SER:HB2	1.67	0.59
1:B:2707:VAL:HG12	1:B:2712:LEU:HD12	1.84	0.59
1:B:3330:TYR:CE1	1:B:3334:PHE:CD2	2.91	0.59
1:B:1495:THR:HG22	1:B:1497:ILE:HG22	1.84	0.59
1:B:2677:VAL:HG11	1:B:2686:LEU:HD21	1.85	0.59
1:A:2293:HIS:CE1	1:A:2409:ASN:HB3	2.38	0.58
1:A:3530:PHE:HD1	1:A:3618:TYR:CD2	2.20	0.58
1:B:2476:LYS:NZ	1:B:2528:ARG:HD2	2.17	0.58
1:B:3919:LYS:NZ	1:B:4038:GLU:CD	2.56	0.58
1:A:1466:GLN:CB	1:A:1473:THR:HG21	2.33	0.58
1:B:3819:ILE:O	1:B:3823:ASN:HB2	2.02	0.58
1:A:2111:LYS:CD	1:A:2161:GLU:HG3	2.16	0.58
1:A:3308:ASN:O	1:A:3310:THR:N	2.36	0.58
1:B:3737:THR:CB	1:B:3740:THR:HB	2.34	0.58
1:B:2080:LYS:HG2	2:B:5400:ATP:O2B	2.03	0.58
1:A:1657:THR:HG21	1:A:1734:PHE:O	2.04	0.58
1:A:2356:TYR:CE1	1:A:2395:ILE:HG22	2.39	0.58
1:A:2286:THR:HA	1:A:2412:ARG:NE	2.18	0.58
1:A:3641:PHE:HA	1:A:3889:LEU:HD21	1.85	0.58
1:B:1418:SER:HB2	1:B:3446:PHE:HB3	1.83	0.58
1:B:2513:GLN:O	1:B:2526:ILE:CG1	2.52	0.58
1:B:4060:SER:HB3	1:B:4070:ILE:HG13	1.84	0.58
1:B:1852:ARG:HG3	1:B:1852:ARG:O	2.03	0.58
1:B:2107:LYS:CE	1:B:2499:SER:HB3	2.31	0.58
1:A:1999:LYS:HG2	1:A:2014:PHE:CZ	2.38	0.58
1:A:2032:LYS:O	1:A:2035:VAL:HG12	2.04	0.58
1:A:3837:GLY:O	1:A:3871:PHE:HD1	1.87	0.58
1:B:3998:ILE:CG2	1:B:4004:LEU:HG	2.33	0.58
1:A:1392:LEU:HD13	1:A:1393:LYS:C	2.24	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1650:LEU:O	1:A:1654:VAL:HG23	2.03	0.58
1:A:2095:ASP:CG	1:A:2149:ARG:NH2	2.57	0.58
1:A:2795:PHE:CE2	1:A:2799:LEU:HD11	2.38	0.58
1:A:4065:LEU:O	1:A:4065:LEU:HD12	2.03	0.58
1:B:1493:LEU:CD2	1:B:1498:GLU:HB3	2.33	0.58
1:B:1502:ILE:HG23	1:B:1503:PRO:HD2	1.83	0.58
1:B:1620:PHE:HA	1:B:1760:PHE:HE1	1.69	0.58
1:B:2336:ARG:HD3	1:B:2355:ASP:OD2	2.03	0.58
1:A:2080:LYS:NZ	2:A:5400:ATP:O3G	2.37	0.58
1:A:2654:ARG:HH22	1:A:2691:SER:HB2	1.68	0.58
1:B:1372:ASN:O	1:B:1376:LYS:HG3	2.03	0.58
1:B:2127:ASP:O	1:B:2131:THR:OG1	2.21	0.58
1:B:3461:ILE:C	1:B:3463:SER:H	2.07	0.58
1:A:1991:GLU:O	1:A:1995:VAL:HG23	2.04	0.58
1:A:2084:TRP:HE3	1:A:2088:ILE:HD12	1.67	0.58
1:B:1826:PHE:HE2	1:B:1853:LEU:HD22	1.66	0.58
1:B:2276:LEU:HD23	1:B:2556:ILE:HD13	1.86	0.58
1:A:1394:LEU:CD2	1:A:1449:GLN:HE22	2.16	0.58
1:A:1637:GLU:O	1:A:1686:LYS:NZ	2.31	0.58
1:A:2111:LYS:HZ3	1:A:2161:GLU:HG2	1.69	0.58
1:A:3406:PHE:CZ	1:A:3505:ILE:HG21	2.39	0.58
1:A:3889:LEU:HG	1:A:3894:ARG:HD3	1.85	0.58
1:A:4021:LEU:HD23	1:A:4023:ILE:CG1	2.34	0.58
1:B:1425:GLU:OE2	1:B:1429:LEU:CD2	2.52	0.58
1:B:1822:CYS:HB2	1:B:1853:LEU:CD2	2.24	0.58
1:B:2177:THR:HG22	1:B:2183:ARG:HG2	1.85	0.58
1:B:2472:THR:HG22	1:B:2524:VAL:HG13	1.86	0.58
1:A:1620:PHE:HA	1:A:1760:PHE:CE1	2.39	0.57
1:A:2076:ALA:HB2	1:A:2549:ARG:HG2	1.86	0.57
1:A:2960:THR:HB	1:A:2963:ASP:HB2	1.84	0.57
1:B:1849:GLU:OE2	1:B:1899:ASN:ND2	2.35	0.57
1:B:2201:HIS:NE2	1:B:2497:TYR:O	2.37	0.57
1:B:3566:LEU:HA	1:B:3583:LEU:HD21	1.86	0.57
1:A:1421:TYR:CG	1:A:1421:TYR:O	2.58	0.57
1:B:2042:GLY:HA3	1:B:2049:MET:CE	2.33	0.57
1:B:2763:ARG:O	3:B:5402:ADP:O4'	2.22	0.57
1:A:2109:LEU:HD23	1:A:2518:THR:HG22	1.86	0.57
1:A:3631:MET:CE	1:A:3698:MET:HG3	2.33	0.57
1:A:2768:ILE:CG2	3:A:5402:ADP:O2A	2.47	0.57
1:A:4020:ASN:HB3	1:A:4028:ARG:NH2	2.18	0.57
1:B:2745:ILE:HG23	1:B:2756:MET:HE3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1995:VAL:HG22	1:A:2022:PHE:CE2	2.39	0.57
1:A:3845:GLN:OE1	1:A:3878:HIS:HB2	2.04	0.57
1:A:2386:MET:HB2	1:A:2627:ARG:CD	2.22	0.57
1:B:2437:LEU:H	1:B:2437:LEU:HD12	1.70	0.57
1:A:1462:ASN:CB	1:A:1465:ILE:HG22	2.35	0.57
1:A:1536:ARG:HD2	1:A:1565:MET:O	2.04	0.57
1:A:2002:ILE:HB	1:A:2014:PHE:CE2	2.40	0.57
1:A:2336:ARG:HA	1:A:2339:ILE:HD12	1.86	0.57
1:B:2095:ASP:CG	1:B:2149:ARG:NH2	2.58	0.57
1:B:2563:SER:CB	1:B:2566:SER:OG	2.53	0.57
1:B:1940:GLU:CB	1:B:1989:GLU:O	2.51	0.57
1:A:1611:LEU:O	1:A:1615:ILE:HG12	2.05	0.56
1:A:2783:GLN:HG2	1:A:2816:ILE:HB	1.86	0.56
1:A:3964:ALA:HB2	1:A:3993:VAL:HG11	1.87	0.56
1:B:1741:LEU:O	1:B:1742:ASP:HB2	2.04	0.56
1:A:2111:LYS:HZ2	1:A:2161:GLU:HG2	1.68	0.56
1:A:2513:GLN:O	1:A:2526:ILE:CG1	2.52	0.56
1:A:2737:SER:HB2	1:A:2924:THR:HG21	1.88	0.56
1:A:2314:ILE:HG22	1:A:2318:ILE:HD12	1.87	0.56
1:B:2517:LYS:CE	1:B:2520:GLU:OE1	2.53	0.56
1:A:1826:PHE:CZ	1:A:1831:LEU:HB2	2.37	0.56
1:A:2495:ASP:O	1:A:2498:GLY:N	2.38	0.56
1:B:1425:GLU:OE2	1:B:1429:LEU:HD11	2.05	0.56
1:B:2225:LYS:HA	2:B:5400:ATP:N3	2.20	0.56
1:A:1493:LEU:HD23	1:A:1498:GLU:CB	2.36	0.56
1:A:1796:GLY:O	1:A:1900:PRO:HD3	2.05	0.56
1:A:2420:PRO:HG2	1:A:2616:LEU:HD21	1.88	0.56
1:A:4065:LEU:HD12	1:A:4065:LEU:C	2.26	0.56
1:B:1926:SER:HA	1:B:1970:LEU:HD12	1.88	0.56
1:B:2081:THR:HB	2:B:5400:ATP:PA	2.45	0.56
1:B:2203:THR:HG22	1:B:2205:ALA:H	1.70	0.56
1:B:2387:ARG:O	1:B:2390:ILE:HG22	2.05	0.56
1:A:1850:PHE:HB2	1:A:1896:ILE:HG23	1.88	0.56
1:B:1683:LEU:HB3	1:B:1702:LEU:HD21	1.88	0.56
1:A:1366:VAL:HG13	1:A:1369:LYS:HE3	1.88	0.56
1:A:2201:HIS:NE2	1:A:2497:TYR:O	2.38	0.56
1:A:2385:VAL:O	1:A:2574:TYR:HE1	1.88	0.56
1:A:2732:MET:HA	3:A:5402:ADP:C2	2.40	0.56
1:A:2982:VAL:HG12	1:A:2983:GLY:N	2.21	0.56
1:B:1970:LEU:CD2	1:B:1974:LYS:HE2	2.36	0.56
1:B:3525:ILE:HD11	1:B:3646:ILE:CG2	2.14	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:162:LEU:HA	1:A:165:ASP:O	2.06	0.56
1:A:3683:TYR:O	1:A:3687:SER:HB2	2.06	0.56
1:A:3785:TYR:CE1	1:A:3859:VAL:HG22	2.37	0.56
1:B:1984:ILE:CG2	1:B:1989:GLU:HG3	2.36	0.56
1:B:2517:LYS:HE2	1:B:2520:GLU:OE1	2.04	0.56
1:B:3656:VAL:CG1	1:B:3677:LEU:HB3	2.31	0.56
1:A:2107:LYS:CE	1:A:2499:SER:HB3	2.34	0.56
1:A:3302:GLU:O	1:A:3305:ARG:CB	2.53	0.56
1:A:3308:ASN:O	1:A:3311:LYS:N	2.38	0.56
1:B:2728:LEU:HD12	1:B:2771:ARG:HH12	1.71	0.56
1:B:2763:ARG:HG3	1:B:2990:GLY:HA3	1.87	0.56
1:A:1851:ASN:HD21	1:A:1899:ASN:HB2	1.70	0.55
1:B:2141:ILE:CG2	1:B:2145:PHE:HB2	2.36	0.55
1:A:1911:ASN:OD1	1:A:1912:LEU:N	2.39	0.55
1:B:1392:LEU:HD13	1:B:1393:LYS:C	2.26	0.55
1:A:2386:MET:CB	1:A:2627:ARG:CD	2.82	0.55
1:A:3017:VAL:HG21	1:A:3313:PHE:CE2	2.41	0.55
1:B:1527:LEU:CD2	1:B:1545:LEU:HD22	2.36	0.55
1:B:1939:PHE:H	1:B:1939:PHE:HD2	1.55	0.55
1:B:2745:ILE:HG23	1:B:2756:MET:HE1	1.87	0.55
1:A:2842:ASP:O	1:A:2845:GLN:HG2	2.07	0.55
1:B:1707:HIS:O	1:B:1711:VAL:HG23	2.06	0.55
1:B:3530:PHE:HD1	1:B:3618:TYR:HD2	1.49	0.55
1:A:1459:LEU:HD22	1:A:1473:THR:CG2	2.36	0.55
1:A:1637:GLU:HA	1:A:1686:LYS:HZ3	1.72	0.55
1:A:1939:PHE:O	1:A:1940:GLU:HB3	2.07	0.55
1:A:3530:PHE:CE1	1:A:3618:TYR:CD2	2.95	0.55
1:A:2763:ARG:HA	3:A:5402:ADP:C5'	2.37	0.55
1:B:2380:LEU:CD2	1:B:2390:ILE:CD1	2.57	0.55
1:A:3592:LYS:O	1:A:3596:ASN:HB2	2.06	0.55
1:B:2252:LEU:HD21	1:B:2310:LEU:HD23	1.88	0.55
1:B:2473:LEU:HD23	1:B:2475:PRO:N	2.20	0.55
1:B:3305:ARG:O	1:B:3307:LEU:N	2.36	0.55
1:A:1645:PHE:HB2	1:A:1697:LYS:HG3	1.88	0.55
1:B:1469:LEU:HB3	1:B:1472:GLU:HB2	1.88	0.55
1:B:2201:HIS:CE1	1:B:2497:TYR:HA	2.40	0.55
1:B:3555:TYR:HE1	1:B:3593:GLU:HG2	1.71	0.55
1:B:3692:LYS:HE3	1:B:3898:GLU:HB3	1.88	0.55
1:A:3998:ILE:HG22	1:A:4004:LEU:HG	1.87	0.55
1:B:2620:ARG:HH21	3:B:5401:ADP:PB	2.29	0.55
1:B:2732:MET:CB	3:B:5402:ADP:C2	2.90	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1620:PHE:HB2	1:A:1760:PHE:CE1	2.42	0.55
1:A:1939:PHE:HD2	1:A:1939:PHE:H	1.55	0.55
1:A:2074:GLY:O	1:A:2197:ASP:HA	2.07	0.55
1:A:3566:LEU:CA	1:A:3583:LEU:HD21	2.37	0.55
1:B:2489:ILE:HD11	1:B:2506:LEU:HD13	1.89	0.55
1:B:2728:LEU:HD12	1:B:2771:ARG:NH1	2.22	0.55
1:A:1998:LEU:CD1	1:A:2022:PHE:HZ	2.20	0.54
1:A:2860:THR:HG22	1:A:2865:LEU:O	2.07	0.54
1:B:2293:HIS:CE1	1:B:2409:ASN:CB	2.89	0.54
1:B:2653:TRP:HB3	1:B:2654:ARG:NH1	2.22	0.54
1:B:3303:LYS:C	1:B:3306:TRP:HD1	2.09	0.54
1:A:1910:GLU:HB2	1:A:3846:MET:HB2	1.89	0.54
1:B:2960:THR:HG22	1:B:2961:ILE:N	2.21	0.54
1:B:3401:GLN:C	1:B:3403:ALA:N	2.61	0.54
1:B:2305:LEU:HB3	1:B:2310:LEU:HD12	1.90	0.54
3:B:5401:ADP:N3	3:B:5401:ADP:C2'	2.70	0.54
1:A:1469:LEU:HB3	1:A:1472:GLU:HB2	1.89	0.54
1:A:1852:ARG:HG3	1:A:1852:ARG:O	2.08	0.54
1:A:2763:ARG:HD2	3:A:5402:ADP:H4'	1.90	0.54
1:A:1983:LEU:HD21	1:A:1996:GLU:HB2	1.88	0.54
1:A:2266:PHE:HD1	1:A:2326:LEU:HD21	1.72	0.54
1:A:4037:SER:HB3	1:A:4040:GLU:HB2	1.90	0.54
1:B:1835:LEU:O	1:B:1838:ILE:HG22	2.08	0.54
1:B:3330:TYR:CD1	1:B:3334:PHE:CD2	2.95	0.54
1:B:3440:LEU:CD2	1:B:3462:ILE:HD12	2.37	0.54
1:A:2446:SER:H	1:A:2449:THR:HG21	1.72	0.54
1:A:2838:ALA:HB3	1:A:2878:VAL:HG13	1.89	0.54
1:B:1425:GLU:OE2	1:B:1429:LEU:CD1	2.55	0.54
1:B:1926:SER:CA	1:B:1970:LEU:HD12	2.36	0.54
1:B:3460:PRO:O	1:B:3463:SER:CB	2.55	0.54
1:B:4023:ILE:HD12	1:B:4029:ILE:HD11	1.90	0.54
1:A:1630:ILE:CG2	1:A:1655:MET:SD	2.96	0.54
1:A:2385:VAL:HG23	1:A:2574:TYR:HD1	1.73	0.54
1:A:3671:VAL:O	1:A:3674:ILE:HG22	2.07	0.54
1:B:2860:THR:HG21	1:B:2867:LEU:HD12	1.89	0.54
1:A:2220:CYS:SG	1:A:2224:SER:CB	2.96	0.54
1:A:2382:ALA:O	1:A:2385:VAL:HG12	2.08	0.54
1:A:2835:LEU:HD23	1:A:2911:ARG:HB2	1.89	0.54
1:B:3459:ASP:OD2	1:B:3461:ILE:HG12	2.08	0.54
1:B:3541:MET:HA	1:B:3544:LYS:HG2	1.90	0.54
1:A:1570:GLU:HB2	1:A:1585:VAL:HA	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1951:HIS:O	1:A:1955:LEU:HB2	2.08	0.54
1:A:2517:LYS:HE3	1:A:2524:VAL:HG23	1.81	0.54
1:A:3855:LEU:HD12	1:A:3859:VAL:HG23	1.88	0.54
1:B:1795:PHE:HE2	1:B:1918:GLU:HB3	1.73	0.54
1:B:3538:ASN:HB3	1:B:3541:MET:HG2	1.89	0.54
1:A:3304:GLU:CG	1:A:3307:LEU:HD23	2.33	0.53
1:A:3784:ASN:ND2	1:A:3865:ALA:O	2.41	0.53
1:A:3979:ASN:C	1:A:3981:PRO:CD	2.76	0.53
1:B:1898:LEU:HD11	1:B:1908:LEU:HD23	1.90	0.53
1:B:3671:VAL:O	1:B:3674:ILE:HG22	2.07	0.53
1:A:3330:TYR:CE1	1:A:3334:PHE:CD2	2.96	0.53
1:B:1365:PHE:C	1:B:1367:ILE:N	2.59	0.53
1:B:1531:ARG:HG2	1:B:1537:PHE:CB	2.37	0.53
1:B:1677:ASP:HA	1:B:1680:ILE:HD12	1.91	0.53
1:B:3566:LEU:HD11	1:B:3570:LEU:HD11	1.90	0.53
1:B:3618:TYR:O	1:B:3622:GLY:N	2.40	0.53
1:B:1540:LEU:HD12	1:B:1548:ILE:CD1	2.39	0.53
1:A:1677:ASP:HA	1:A:1680:ILE:HD12	1.89	0.53
1:A:1983:LEU:HD21	1:A:1993:THR:O	2.09	0.53
1:A:2222:ILE:HG23	1:A:2284:LEU:HD11	1.90	0.53
1:A:3323:ASN:HD21	1:A:3361:ASP:H	1.55	0.53
1:A:3989:ILE:HD13	1:A:4015:PHE:CZ	2.43	0.53
1:A:2763:ARG:CD	3:A:5402:ADP:H4'	2.38	0.53
1:B:1645:PHE:CZ	1:B:1649:LEU:HD22	2.42	0.53
1:B:2354:SER:OG	1:B:2357:SER:HB2	2.08	0.53
1:B:2428:MET:HE1	1:B:2440:VAL:CG2	2.38	0.53
1:B:2474:LEU:HB3	1:B:2526:ILE:HG22	1.91	0.53
1:B:2732:MET:CA	3:B:5402:ADP:N1	2.72	0.53
1:B:3641:PHE:HA	1:B:3889:LEU:HD21	1.88	0.53
1:A:1835:LEU:O	1:A:1838:ILE:HG22	2.08	0.53
1:A:1872:LEU:HG	1:A:1888:LEU:HD21	1.90	0.53
1:A:2786:ILE:HD12	1:A:3460:PRO:HG2	1.91	0.53
1:A:3555:TYR:HE1	1:A:3593:GLU:HG2	1.73	0.53
1:B:2582:VAL:HG23	1:B:2582:VAL:O	2.08	0.53
1:B:1726:LEU:HD13	1:B:3984:GLN:HB3	1.87	0.53
1:A:1749:ILE:HD13	1:A:1813:LEU:HD22	1.90	0.53
1:A:2563:SER:CB	1:A:2566:SER:OG	2.57	0.53
1:A:2448:ASP:HB2	1:A:2829:GLU:CD	2.29	0.53
1:A:3367:ILE:O	1:A:3371:VAL:HG22	2.09	0.53
1:A:3819:ILE:O	1:A:3823:ASN:HB2	2.09	0.53
1:B:3924:TRP:O	1:B:3927:TYR:HB3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1418:SER:O	1:A:1421:TYR:CE2	2.62	0.53
1:A:1698:ILE:O	1:A:1702:LEU:HG	2.08	0.53
1:A:1826:PHE:CZ	1:A:1830:VAL:HG13	2.44	0.53
1:A:3330:TYR:CE2	1:A:3346:LEU:HD13	2.43	0.53
1:B:3308:ASN:O	1:B:3312:GLN:HB2	2.09	0.53
1:B:3530:PHE:CE1	1:B:3618:TYR:CD2	2.96	0.53
1:B:3342:ARG:NH1	1:B:3393:ASN:OD1	2.38	0.53
1:B:3612:ASP:O	1:B:3615:VAL:HG22	2.09	0.53
1:B:3760:LEU:HD21	1:B:4078:ALA:HA	1.91	0.53
1:A:1493:LEU:CD2	1:A:1498:GLU:HB3	2.39	0.53
1:A:1645:PHE:HZ	1:A:1768:ARG:HD2	1.73	0.53
1:A:1794:PHE:CD1	1:A:1802:LYS:HB3	2.41	0.53
1:A:2220:CYS:SG	1:A:2221:SER:N	2.82	0.53
1:A:2410:SER:C	1:A:2411:LYS:HG3	2.29	0.53
1:B:1770:ILE:HD11	1:B:1936:ILE:HD11	1.90	0.53
1:B:2112:GLU:CB	1:B:2117:SER:HB2	2.32	0.53
1:B:3998:ILE:HG21	1:B:4004:LEU:HG	1.91	0.53
1:A:1540:LEU:HD11	1:A:1561:PHE:HB3	1.90	0.53
1:A:2380:LEU:CD1	1:A:2577:ALA:CB	2.86	0.53
1:A:2476:LYS:HZ2	1:A:2528:ARG:HB2	1.74	0.53
1:A:2707:VAL:CG1	1:A:2712:LEU:HD12	2.38	0.53
1:A:3978:ASN:O	1:A:3981:PRO:HD3	2.08	0.53
1:B:3978:ASN:O	1:B:3981:PRO:CD	2.57	0.53
1:A:1534:PHE:CE2	1:A:1536:ARG:HB2	2.43	0.52
1:A:2151:TRP:CE3	1:A:2193:LEU:HD11	2.44	0.52
1:A:3509:LEU:HD12	1:A:3513:VAL:CG2	2.39	0.52
1:B:2080:LYS:HZ1	1:B:2549:ARG:NE	2.07	0.52
1:B:2842:ASP:O	1:B:2845:GLN:HG2	2.09	0.52
1:B:3737:THR:CB	1:B:3740:THR:CB	2.87	0.52
1:B:3862:THR:HB	1:B:3865:ALA:HB2	1.91	0.52
1:A:1731:VAL:HG12	1:A:1732:GLN:N	2.24	0.52
1:A:1929:ILE:H	1:A:1929:ILE:HD12	1.74	0.52
1:A:3547:ASP:HA	1:A:3550:LYS:HB3	1.90	0.52
1:B:3889:LEU:HG	1:B:3894:ARG:HD3	1.90	0.52
1:A:2941:THR:HG22	1:A:2942:ASP:N	2.22	0.52
1:A:4024:VAL:CG2	1:A:4027:VAL:HB	2.40	0.52
1:B:1575:LEU:O	1:B:1576:GLU:HB3	2.10	0.52
1:B:1866:GLN:O	1:B:1870:ASN:HB2	2.08	0.52
1:B:2151:TRP:HE3	1:B:2193:LEU:HD11	1.73	0.52
1:B:2074:GLY:O	1:B:2197:ASP:HA	2.10	0.52
1:B:2563:SER:CB	1:B:2566:SER:H	2.16	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2784:PRO:HG2	1:B:2817:ILE:HD13	1.91	0.52
1:B:2891:ILE:HD11	1:B:2903:ILE:HD11	1.90	0.52
1:B:2081:THR:HB	2:B:5400:ATP:O1A	2.09	0.52
1:A:1416:LYS:O	1:A:1421:TYR:OH	2.25	0.52
1:A:2003:LEU:HA	1:A:2006:LEU:HD12	1.91	0.52
1:A:2137:VAL:O	1:A:2141:ILE:CG2	2.54	0.52
1:A:3701:THR:OG1	1:A:4085:THR:HG22	2.08	0.52
1:B:3330:TYR:CE2	1:B:3346:LEU:HD13	2.45	0.52
1:B:3737:THR:HB	1:B:3740:THR:HG1	1.74	0.52
1:B:3935:PHE:HB2	1:B:4014:VAL:HG11	1.92	0.52
1:A:2473:LEU:HD22	1:A:2527:GLU:HG2	1.91	0.52
1:B:2107:LYS:CE	1:B:2495:ASP:OD2	2.44	0.52
1:A:1416:LYS:O	1:A:1421:TYR:CE2	2.63	0.52
1:A:1645:PHE:CD2	1:A:1765:ILE:HG22	2.44	0.52
1:A:3304:GLU:O	1:A:3307:LEU:HB3	2.10	0.52
1:A:3538:ASN:HB3	1:A:3541:MET:HG2	1.91	0.52
1:A:3530:PHE:HD1	1:A:3618:TYR:HD2	1.50	0.52
1:B:2624:ARG:NH2	1:B:2910:ASN:O	2.43	0.52
1:B:3934:TRP:CB	1:B:4023:ILE:HD13	2.40	0.52
1:A:2280:THR:HA	1:A:2283:LYS:HD2	1.91	0.52
1:A:2318:ILE:O	1:A:2322:LEU:HB2	2.10	0.52
1:A:2488:GLU:CD	1:A:2491:LEU:HD11	2.30	0.52
1:A:2201:HIS:CE1	1:A:2497:TYR:HA	2.44	0.52
1:B:1703:VAL:HG13	1:B:1770:ILE:HD13	1.90	0.52
1:A:1970:LEU:CD2	1:A:1974:LYS:HE2	2.40	0.52
1:A:2220:CYS:SG	1:A:2224:SER:HB2	2.50	0.52
1:B:2073:VAL:HG21	1:B:2199:LEU:HD11	1.92	0.52
1:B:23:LEU:O	1:B:24:GLU:CB	2.57	0.52
1:A:1910:GLU:HB2	1:A:3846:MET:HA	1.91	0.52
1:A:1956:LEU:CB	1:A:1968:PHE:CE2	2.87	0.52
1:B:2044:ARG:NH2	1:B:2093:ILE:HD11	2.24	0.52
1:A:1527:LEU:HD21	1:A:1546:LEU:HD21	1.91	0.52
1:A:1706:LEU:HD22	1:A:1935:GLN:CG	2.38	0.52
1:A:2076:ALA:CB	1:A:2549:ARG:HG2	2.40	0.52
1:A:2336:ARG:CD	1:A:2355:ASP:OD2	2.57	0.52
1:A:3304:GLU:HG3	1:A:3307:LEU:CD2	2.32	0.52
1:B:1822:CYS:SG	1:B:1850:PHE:HA	2.50	0.52
1:B:2728:LEU:CG	1:B:2771:ARG:HH22	2.22	0.52
1:B:1692:ASP:O	1:B:1695:LYS:HB3	2.09	0.51
1:B:2080:LYS:HG2	2:B:5400:ATP:O1B	2.07	0.51
1:A:2421:GLY:H	3:A:5401:ADP:PB	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1409:LEU:CD2	1:B:1435:LEU:CB	2.86	0.51
1:A:1781:THR:HG21	1:A:1919:PHE:CD1	2.46	0.51
1:B:2080:LYS:HG3	1:B:2195:GLU:OE1	2.10	0.51
1:B:2386:MET:HB2	1:B:2627:ARG:CD	2.37	0.51
1:B:3537:GLU:OE1	1:B:3618:TYR:OH	2.29	0.51
1:B:3934:TRP:HB3	1:B:4023:ILE:HD13	1.93	0.51
1:B:3979:ASN:O	1:B:3981:PRO:HD2	2.11	0.51
1:B:2080:LYS:HG3	2:B:5400:ATP:O1B	2.11	0.51
1:A:2489:ILE:HG22	1:A:2535:CYS:HB3	1.92	0.51
1:A:2633:ILE:HD11	1:A:2644:LEU:CD2	2.41	0.51
1:B:1822:CYS:SG	1:B:1849:GLU:C	2.89	0.51
1:B:2173:ASN:HB3	1:B:2175:ILE:HG22	1.92	0.51
1:B:3551:LEU:HA	1:B:3554:GLU:HB3	1.92	0.51
1:A:2517:LYS:HG3	1:A:2524:VAL:HG23	1.93	0.51
1:A:3303:LYS:HA	1:A:3306:TRP:HB2	1.92	0.51
1:B:1929:ILE:HD13	1:B:1970:LEU:CD1	2.40	0.51
1:B:2257:PHE:HD1	1:B:2262:LEU:HD11	1.75	0.51
1:B:3911:TRP:HH2	1:B:3926:VAL:HG13	1.76	0.51
1:A:3460:PRO:O	1:A:3463:SER:CB	2.59	0.51
1:B:1910:GLU:CB	1:B:3846:MET:HB3	2.41	0.51
1:B:2506:LEU:HD22	1:B:2531:ILE:HD12	1.91	0.51
1:B:2788:ARG:HG3	1:B:3459:ASP:HA	1.92	0.51
1:B:2786:ILE:HD12	1:B:3460:PRO:HG2	1.92	0.51
1:B:3547:ASP:HA	1:B:3550:LYS:HB3	1.91	0.51
1:B:3979:ASN:C	1:B:3981:PRO:HD2	2.30	0.51
1:A:2112:GLU:HB3	1:A:2117:SER:OG	2.11	0.51
1:A:2154:PHE:CD1	1:A:2154:PHE:N	2.79	0.51
1:B:2336:ARG:HA	1:B:2339:ILE:HD12	1.93	0.51
1:B:2105:ASP:OD2	1:B:2508:GLN:HB2	2.11	0.51
1:B:3978:ASN:O	1:B:3981:PRO:HD3	2.11	0.51
1:A:2002:ILE:HG22	1:A:2006:LEU:HD11	1.92	0.51
1:A:2494:LEU:HB2	1:A:2499:SER:N	2.26	0.51
1:A:2563:SER:CB	1:A:2566:SER:H	2.22	0.51
1:A:2788:ARG:HG3	1:A:3459:ASP:HA	1.92	0.51
1:A:3342:ARG:NH1	1:A:3393:ASN:OD1	2.40	0.51
1:A:3989:ILE:HD13	1:A:4015:PHE:CE2	2.46	0.51
1:B:1626:CYS:SG	1:B:1639:VAL:HG11	2.51	0.51
1:B:1911:ASN:OD1	1:B:1912:LEU:HG	2.11	0.51
1:B:1949:ILE:HD11	1:B:1994:VAL:HG11	1.93	0.51
1:B:2262:LEU:HA	1:B:2265:ILE:HD12	1.92	0.51
1:B:3566:LEU:HD23	1:B:3587:LEU:HD11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3784:ASN:ND2	1:B:3865:ALA:O	2.44	0.51
1:B:3815:PRO:O	1:B:3821:ASN:HB3	2.11	0.51
1:A:1748:PHE:CD2	1:A:1755:LEU:HD22	2.46	0.51
1:B:1559:SER:HB3	1:B:1572:ILE:HG22	1.93	0.51
1:B:1762:TYR:CZ	1:B:1764:GLY:HA2	2.46	0.51
1:B:2410:SER:O	1:B:2411:LYS:HB2	2.11	0.51
1:B:2476:LYS:N	1:B:2476:LYS:CD	2.71	0.51
1:A:3785:TYR:CE1	1:A:3859:VAL:HG13	2.46	0.50
1:B:1365:PHE:CG	1:B:1366:VAL:N	2.76	0.50
1:B:2473:LEU:HD22	1:B:2475:PRO:CG	2.32	0.50
1:B:2224:SER:O	2:B:5400:ATP:H2	1.93	0.50
1:A:1849:GLU:CG	1:A:1899:ASN:ND2	2.74	0.50
1:A:2048:SER:H	2:A:5400:ATP:N6	2.08	0.50
1:A:3308:ASN:C	1:A:3310:THR:H	2.12	0.50
1:A:1418:SER:HB2	1:A:3446:PHE:HB3	1.91	0.50
1:B:2380:LEU:HG	1:B:2384:GLU:OE1	2.11	0.50
1:B:2571:TYR:HD1	1:B:2626:VAL:HG21	1.75	0.50
1:B:2081:THR:OG1	2:B:5400:ATP:O1B	2.26	0.50
1:A:1493:LEU:HD23	1:A:1498:GLU:HB3	1.93	0.50
1:A:2282:ASN:ND2	1:A:2552:ARG:HD2	2.26	0.50
1:A:3350:LYS:HA	1:A:3353:LEU:HD12	1.92	0.50
1:B:1749:ILE:HD13	1:B:1813:LEU:HD22	1.92	0.50
1:B:2080:LYS:CG	1:B:2081:THR:H	2.25	0.50
1:B:2473:LEU:HD21	1:B:2527:GLU:HB2	1.94	0.50
1:A:1493:LEU:HD22	1:A:1502:ILE:HD11	1.93	0.50
1:A:1926:SER:HA	1:A:1970:LEU:CD1	2.40	0.50
1:A:2083:THR:O	1:A:2087:VAL:HG23	2.12	0.50
1:B:1493:LEU:O	1:B:1494:ASP:HB2	2.11	0.50
1:B:2137:VAL:O	1:B:2141:ILE:CG2	2.49	0.50
1:B:3401:GLN:O	1:B:3403:ALA:N	2.44	0.50
1:A:1387:GLU:HA	1:A:1393:LYS:HA	1.93	0.50
1:A:2984:VAL:C	1:A:2986:PRO:HD3	2.32	0.50
1:B:3461:ILE:C	1:B:3463:SER:N	2.65	0.50
1:B:3530:PHE:HD1	1:B:3618:TYR:CD2	2.26	0.50
1:A:2081:THR:HA	1:A:2084:TRP:NE1	2.27	0.50
1:A:2364:ASP:O	1:A:2365:LYS:HG3	2.11	0.50
1:A:2762:SER:O	1:A:2763:ARG:CB	2.47	0.50
1:B:1917:ARG:HD2	1:B:3963:PHE:CE2	2.47	0.50
1:A:2181:GLY:O	1:A:2182:GLU:CG	2.58	0.50
1:B:3965:SER:HA	1:B:3968:LEU:HD12	1.92	0.50
1:A:1438:LEU:O	1:A:1442:GLN:HB2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2780:LYS:HB3	1:A:2813:THR:HG22	1.94	0.50
1:A:3725:VAL:HG22	1:A:3731:ASP:HA	1.93	0.50
1:B:3323:ASN:HD21	1:B:3361:ASP:H	1.60	0.50
1:B:3919:LYS:NZ	1:B:4038:GLU:CG	2.74	0.50
1:B:2080:LYS:HE2	2:B:5400:ATP:PG	2.52	0.50
1:A:1409:LEU:CD2	1:A:1435:LEU:CB	2.82	0.50
1:A:1493:LEU:O	1:A:1494:ASP:HB2	2.11	0.50
1:A:3461:ILE:C	1:A:3463:SER:H	2.16	0.50
1:A:3817:GLY:H	1:A:3821:ASN:HB2	1.77	0.50
1:A:3854:TYR:O	1:A:3858:HIS:HB2	2.12	0.50
1:A:2424:LYS:NZ	3:A:5401:ADP:O2B	2.32	0.50
1:A:1802:LYS:NZ	4:A:5403:SO4:O2	2.32	0.50
1:B:2362:ALA:HB3	1:B:2365:LYS:O	2.12	0.50
1:B:2741:HIS:HA	1:B:2744:ARG:HD2	1.93	0.50
1:B:3848:LEU:HD21	1:B:3852:LYS:HE3	1.94	0.50
1:A:2394:THR:H	1:A:2397:THR:HB	1.76	0.49
1:A:2941:THR:CG2	1:A:2942:ASP:H	2.25	0.49
1:B:1469:LEU:HD13	1:B:1523:LEU:CD2	2.42	0.49
1:B:1554:HIS:O	1:B:1555:HIS:HB2	2.11	0.49
1:B:1645:PHE:CD2	1:B:1765:ILE:HG22	2.47	0.49
1:B:1681:LYS:CE	1:B:1939:PHE:HZ	2.24	0.49
1:B:1973:LEU:O	1:B:1977:LEU:HG	2.12	0.49
1:B:2318:ILE:O	1:B:2322:LEU:HB2	2.11	0.49
1:B:2732:MET:HB2	3:B:5402:ADP:C4	2.41	0.49
1:B:3855:LEU:HD12	1:B:3859:VAL:HG23	1.94	0.49
1:A:2170:LEU:HB3	1:A:2209:ARG:HD3	1.92	0.49
1:A:2293:HIS:CE1	1:A:2409:ASN:CB	2.96	0.49
1:B:3509:LEU:HD12	1:B:3513:VAL:CG2	2.42	0.49
1:A:1495:THR:CG2	1:A:1497:ILE:HG22	2.40	0.49
1:A:1802:LYS:O	1:A:1806:VAL:HG23	2.12	0.49
1:A:1926:SER:HB2	1:A:1973:LEU:HD21	1.93	0.49
1:A:2104:ILE:O	1:A:2154:PHE:HA	2.12	0.49
1:B:1794:PHE:HB3	1:B:1919:PHE:HB3	1.95	0.49
1:B:3481:ILE:O	1:B:3483:ASP:N	2.45	0.49
1:A:1850:PHE:CB	1:A:1896:ILE:HG23	2.42	0.49
1:A:1940:GLU:HG3	1:A:1941:ASP:N	2.27	0.49
1:A:1970:LEU:CD2	1:A:1974:LYS:CE	2.90	0.49
1:A:2829:GLU:HA	1:A:2832:ASN:HD22	1.76	0.49
1:A:3631:MET:HE3	1:A:3698:MET:HG3	1.93	0.49
1:B:1981:SER:HB3	1:B:1982:PRO:HD3	1.95	0.49
1:B:2354:SER:H	1:B:2357:SER:HB2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1870:ASN:O	1:A:1874:VAL:HG23	2.13	0.49
1:A:3537:GLU:OE1	1:A:3618:TYR:OH	2.31	0.49
1:B:2063:MET:HB3	1:B:2070:LEU:HD11	1.93	0.49
1:B:2755:HIS:NE2	1:B:2835:LEU:HG	2.26	0.49
1:B:3306:TRP:CH2	1:B:3594:ALA:HB1	2.48	0.49
1:B:4022:GLN:HG2	1:B:4022:GLN:O	2.13	0.49
1:A:1637:GLU:HA	1:A:1686:LYS:NZ	2.27	0.49
1:A:1822:CYS:HB2	1:A:1853:LEU:CD2	2.26	0.49
1:A:1910:GLU:HB2	1:A:3846:MET:CA	2.42	0.49
1:B:2580:LYS:HG2	1:B:2586:ARG:HH22	1.77	0.49
1:B:3338:ASN:HD22	1:B:3341:GLU:HG2	1.77	0.49
1:A:1656:TRP:O	1:A:1660:VAL:HG12	2.11	0.49
1:A:1838:ILE:HG13	1:A:1843:ALA:HB3	1.93	0.49
1:B:1795:PHE:CE2	1:B:1918:GLU:HB3	2.48	0.49
1:B:2229:LEU:HB3	1:B:2288:VAL:HG11	1.94	0.49
1:B:2732:MET:CA	3:B:5402:ADP:C2	2.93	0.49
1:B:2758:LEU:HD23	1:B:2915:ASN:HB3	1.95	0.49
1:B:3505:ILE:O	1:B:3510:ARG:NH1	2.46	0.49
1:B:3702:MET:HB3	1:B:3767:PHE:HZ	1.77	0.49
1:A:1803:THR:HG21	1:A:1848:ASP:CG	2.33	0.49
1:A:2274:HIS:CE1	1:A:2326:LEU:O	2.51	0.49
1:A:2489:ILE:HD11	1:A:2506:LEU:HD13	1.94	0.49
1:B:1838:ILE:CD1	1:B:1845:GLY:HA3	2.43	0.49
1:B:1929:ILE:HD12	1:B:1929:ILE:H	1.78	0.49
1:B:2080:LYS:CG	1:B:2081:THR:N	2.76	0.49
1:B:2305:LEU:HD11	1:B:2368:PHE:HB3	1.94	0.49
1:B:2792:LEU:HD13	1:B:2826:ALA:HB3	1.95	0.49
1:A:3010:LEU:CD2	1:A:3317:SER:HB3	2.41	0.49
1:A:3612:ASP:O	1:A:3615:VAL:HG22	2.13	0.49
1:A:3989:ILE:HA	1:A:3993:VAL:HB	1.95	0.49
1:B:3330:TYR:CE1	1:B:3334:PHE:CE2	3.01	0.49
1:B:1657:THR:HG21	1:B:1734:PHE:O	2.12	0.49
1:B:1995:VAL:HG22	1:B:2022:PHE:CE2	2.48	0.49
1:B:3946:VAL:HA	1:B:3947:PRO:C	2.32	0.49
1:B:1748:PHE:HD2	1:B:1755:LEU:HD22	1.78	0.48
1:B:2002:ILE:HG22	1:B:2006:LEU:HD11	1.95	0.48
1:B:3319:GLU:HA	1:B:3359:LYS:O	2.13	0.48
1:A:1391:GLY:HA3	1:A:1484:LYS:NZ	2.27	0.48
1:A:2027:THR:HA	1:A:2028:PRO:HD3	1.62	0.48
1:A:2401:GLU:HG2	1:A:2431:ALA:HB2	1.94	0.48
1:A:3737:THR:HB	1:A:3740:THR:HB	1.90	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3971:VAL:O	1:A:3975:ASN:HB2	2.13	0.48
1:B:1527:LEU:HD22	1:B:1545:LEU:HD22	1.94	0.48
1:B:1606:GLU:O	1:B:1610:ILE:HG12	2.13	0.48
1:B:2257:PHE:CD1	1:B:2262:LEU:HD11	2.48	0.48
1:B:2316:LEU:HD13	1:B:2351:GLN:HB3	1.95	0.48
1:B:2473:LEU:CD2	1:B:2475:PRO:N	2.76	0.48
1:B:3688:THR:HG21	1:B:3777:VAL:CG2	2.42	0.48
1:B:3817:GLY:H	1:B:3821:ASN:CB	2.27	0.48
1:B:3785:TYR:HE1	1:B:3859:VAL:HG22	1.74	0.48
1:A:1466:GLN:HB3	1:A:1473:THR:HG21	1.94	0.48
1:A:2131:THR:HG22	1:A:2176:LEU:HD21	1.94	0.48
1:A:2985:ASN:N	1:A:2986:PRO:HD3	2.28	0.48
1:A:3440:LEU:HD22	1:A:3462:ILE:HD12	1.95	0.48
1:B:3592:LYS:O	1:B:3596:ASN:N	2.46	0.48
1:B:3807:SER:O	1:B:3808:LYS:HB2	2.14	0.48
1:B:1917:ARG:HD2	1:B:3963:PHE:CZ	2.48	0.48
1:A:1953:LEU:HD11	1:A:1973:LEU:HB3	1.94	0.48
1:A:65:THR:O	1:A:66:GLN:CB	2.60	0.48
1:B:1781:THR:HG21	1:B:1919:PHE:CE1	2.48	0.48
1:A:1984:ILE:HG21	1:A:1989:GLU:HG3	1.95	0.48
1:A:2394:THR:HG22	1:A:2395:ILE:H	1.78	0.48
1:A:2571:TYR:HA	1:A:2574:TYR:HB2	1.95	0.48
1:A:3330:TYR:CD1	1:A:3334:PHE:CD2	3.02	0.48
1:A:3833:LYS:NZ	1:A:3862:THR:HG21	2.27	0.48
1:A:4074:GLU:HA	1:A:4077:GLN:HE21	1.78	0.48
1:B:1392:LEU:C	1:B:1392:LEU:CD1	2.80	0.48
1:B:1531:ARG:HD3	1:B:1537:PHE:O	2.14	0.48
1:B:1940:GLU:HG3	1:B:1941:ASP:H	1.79	0.48
1:B:4020:ASN:HB3	1:B:4028:ARG:HH21	1.77	0.48
1:A:1559:SER:HB3	1:A:1572:ILE:HG22	1.96	0.48
1:A:1803:THR:HG21	1:A:1848:ASP:OD1	2.14	0.48
1:A:2302:PHE:HA	1:A:2310:LEU:HD11	1.95	0.48
1:A:3409:ASP:HB3	1:A:3518:PHE:HB2	1.96	0.48
1:B:1535:PRO:C	1:B:1841:ILE:HD11	2.33	0.48
1:B:3854:TYR:O	1:B:3858:HIS:HB2	2.14	0.48
1:A:1749:ILE:O	1:A:1755:LEU:HA	2.13	0.48
1:A:1911:ASN:OD1	1:A:1912:LEU:HG	2.14	0.48
1:A:2079:GLY:HA2	2:A:5400:ATP:H5'2	1.96	0.48
1:A:1604:ALA:HA	1:A:1607:TRP:HE1	1.78	0.48
1:A:2728:LEU:HD12	1:A:2771:ARG:NH1	2.27	0.48
1:A:2982:VAL:CG1	1:A:2983:GLY:N	2.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3797:THR:O	1:A:3801:ILE:HG12	2.13	0.48
1:B:1386:ILE:HG22	1:B:1396:ARG:HG2	1.95	0.48
1:B:1714:GLN:HB3	1:B:1727:LEU:HD11	1.96	0.48
1:B:2642:ARG:O	1:B:2646:ARG:HG3	2.14	0.48
1:B:3306:TRP:HH2	1:B:3594:ALA:HB1	1.77	0.48
1:A:1455:LEU:HD12	1:A:1516:LEU:CD2	2.41	0.48
1:A:2463:ASN:O	1:A:2475:PRO:HD2	2.13	0.48
1:B:1823:ASP:HB2	1:B:1853:LEU:HD23	1.96	0.48
1:B:1967:HIS:C	1:B:1968:PHE:CD1	2.85	0.48
1:A:1969:GLY:O	1:A:1972:THR:HB	2.14	0.48
1:A:2771:ARG:HG2	1:A:2781:ILE:HG21	1.96	0.48
1:B:1838:ILE:HG13	1:B:1843:ALA:HB3	1.96	0.48
1:B:2295:ILE:HG12	1:B:2314:ILE:HD12	1.96	0.48
1:B:2787:HIS:CA	1:B:3460:PRO:HG2	2.43	0.48
1:A:1941:ASP:O	1:A:1945:LEU:HG	2.13	0.47
1:B:1910:GLU:HB2	1:B:3846:MET:HB3	1.91	0.47
1:B:2707:VAL:HG12	1:B:2712:LEU:CD1	2.39	0.47
1:B:2754:GLY:HA3	1:B:2886:HIS:CE1	2.49	0.47
1:A:1620:PHE:CA	1:A:1760:PHE:CE1	2.97	0.47
1:A:2839:ASP:HB3	1:A:2878:VAL:HG22	1.94	0.47
1:B:1392:LEU:N	1:B:1484:LYS:HE2	2.29	0.47
1:B:1748:PHE:CD2	1:B:1755:LEU:HD22	2.49	0.47
1:B:2467:THR:HG22	1:B:2468:SER:N	2.28	0.47
1:B:2728:LEU:HD12	1:B:2771:ARG:CZ	2.44	0.47
1:A:2201:HIS:CE1	1:A:2497:TYR:HB3	2.48	0.47
1:A:3628:ILE:HG22	1:A:3649:PHE:CE2	2.49	0.47
1:B:1392:LEU:HD23	1:B:1484:LYS:HA	1.96	0.47
1:B:1611:LEU:O	1:B:1615:ILE:HG12	2.14	0.47
1:B:2122:THR:O	1:B:2123:LEU:C	2.53	0.47
1:B:2220:CYS:SG	2:B:5400:ATP:C6	3.07	0.47
1:B:3772:TRP:HZ3	1:B:3780:ASN:HD22	1.63	0.47
1:A:2034:ILE:CD1	1:A:2061:TYR:CZ	2.97	0.47
1:A:3460:PRO:O	1:A:3463:SER:HB3	2.14	0.47
1:A:3628:ILE:HG22	1:A:3649:PHE:HE2	1.80	0.47
1:B:2732:MET:CB	3:B:5402:ADP:C4	2.97	0.47
1:B:3459:ASP:OD2	1:B:3461:ILE:CG1	2.62	0.47
1:A:2889:PHE:CD1	1:A:2902:MET:HE1	2.50	0.47
1:A:3940:THR:O	1:A:3943:THR:HB	2.14	0.47
1:B:1979:ASN:OD1	1:B:2066:THR:HG21	2.15	0.47
1:B:2106:THR:H	1:B:2156:SER:HB2	1.79	0.47
1:B:2846:GLY:O	1:B:2849:TYR:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2757:MET:HG2	1:B:2914:ILE:HG13	1.96	0.47
1:A:1938:GLY:HA3	1:A:1989:GLU:HG2	1.96	0.47
1:A:3979:ASN:O	1:A:3981:PRO:CD	2.57	0.47
1:B:2473:LEU:HD23	1:B:2473:LEU:C	2.34	0.47
1:B:1715:LEU:HG	1:B:1727:LEU:HD22	1.97	0.47
1:B:2002:ILE:HB	1:B:2014:PHE:CE2	2.49	0.47
1:B:2891:ILE:CD1	1:B:2903:ILE:HD11	2.44	0.47
1:B:3897:TYR:CZ	1:B:3899:ASP:HB3	2.50	0.47
1:B:1750:SER:HB2	1:B:1755:LEU:CD2	2.45	0.47
1:A:1422:LYS:HA	1:A:1422:LYS:HD3	1.63	0.47
1:A:1992:LYS:HG2	1:A:2024:SER:CB	2.43	0.47
1:A:2368:PHE:O	1:A:2369:SER:CB	2.62	0.47
1:A:2578:ILE:HG21	1:A:2630:TYR:HB2	1.97	0.47
1:B:1534:PHE:CD2	1:B:1537:PHE:CE2	3.02	0.47
1:B:2361:ILE:HG22	1:B:2367:SER:O	2.15	0.47
1:B:2734:ILE:HD12	1:B:2734:ILE:H	1.80	0.47
1:B:2941:THR:HG22	1:B:2942:ASP:N	2.30	0.47
1:A:1998:LEU:HD11	1:A:2022:PHE:HZ	1.79	0.47
1:B:2420:PRO:HD3	1:B:2536:ASN:ND2	2.25	0.47
1:B:3326:ILE:HA	1:B:3349:LEU:HD21	1.96	0.47
1:B:3994:TYR:O	1:B:3998:ILE:HD12	2.15	0.47
1:B:2424:LYS:N	3:B:5401:ADP:O1B	2.48	0.47
1:A:2420:PRO:HD3	1:A:2536:ASN:HD21	1.80	0.47
1:A:3302:GLU:O	1:A:3305:ARG:CA	2.63	0.47
1:A:3718:ALA:O	1:A:3721:THR:HG22	2.15	0.47
1:B:1540:LEU:HD11	1:B:1548:ILE:HD11	1.96	0.47
1:B:1849:GLU:CD	1:B:1899:ASN:HD22	2.18	0.47
1:B:1910:GLU:HB2	1:B:3846:MET:HB2	1.97	0.47
1:B:2111:LYS:HZ2	1:B:2161:GLU:HG2	1.79	0.47
1:B:2169:VAL:HG13	1:B:2186:ILE:HG12	1.96	0.47
1:B:2354:SER:OG	1:B:2357:SER:CB	2.63	0.47
1:B:2707:VAL:HG11	1:B:2712:LEU:HD12	1.97	0.47
1:B:4037:SER:HB3	1:B:4040:GLU:HB2	1.97	0.47
1:A:1970:LEU:HD23	1:A:1974:LYS:HE3	1.97	0.46
1:A:3956:PHE:CD1	1:A:3994:TYR:HD1	2.33	0.46
1:B:1706:LEU:HD22	1:B:1935:GLN:CG	2.45	0.46
1:B:2252:LEU:HD22	1:B:2314:ILE:HG13	1.97	0.46
1:B:2819:GLU:O	1:B:2822:ILE:HG13	2.15	0.46
1:B:1620:PHE:CA	1:B:1760:PHE:CE1	2.97	0.46
1:B:1828:TYR:HB2	1:B:1857:VAL:HG13	1.98	0.46
1:B:2152:VAL:HG12	1:B:2154:PHE:CE1	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4074:GLU:HA	1:B:4077:GLN:HE21	1.80	0.46
1:A:2856:LEU:HD21	1:A:2877:PHE:HB2	1.97	0.46
1:A:3304:GLU:O	1:A:3307:LEU:N	2.48	0.46
1:A:3509:LEU:O	1:A:3513:VAL:HG23	2.16	0.46
1:A:3624:HIS:ND1	1:A:3675:LEU:HD11	2.30	0.46
1:A:3844:ILE:HG12	1:A:3851:VAL:HG21	1.97	0.46
1:A:3945:LEU:HD21	1:A:4070:ILE:CD1	2.45	0.46
1:B:1563:LYS:HA	1:B:1569:ILE:O	2.15	0.46
1:B:1611:LEU:O	1:B:1615:ILE:HG23	2.15	0.46
1:B:1646:GLN:OE1	1:B:1763:ILE:HG12	2.15	0.46
1:B:2080:LYS:CE	1:B:2549:ARG:HH21	2.28	0.46
1:B:4023:ILE:CD1	1:B:4029:ILE:HD11	2.45	0.46
1:A:1970:LEU:HD21	1:A:1974:LYS:HE2	1.97	0.46
1:A:3990:ALA:HB2	1:A:4011:CYS:SG	2.56	0.46
1:B:1386:ILE:CG2	1:B:1396:ARG:HG2	2.46	0.46
1:B:2081:THR:HG22	1:B:2085:LYS:HD2	1.97	0.46
1:B:2732:MET:SD	3:B:5402:ADP:N7	2.89	0.46
1:B:2824:GLU:HG2	1:B:2825:THR:H	1.80	0.46
1:B:2961:ILE:O	1:B:2965:VAL:HG23	2.14	0.46
1:B:2786:ILE:HD12	1:B:3460:PRO:CG	2.46	0.46
1:B:3911:TRP:HH2	1:B:3926:VAL:CG1	2.28	0.46
1:A:2068:GLN:HE22	1:A:2188:PRO:HA	1.81	0.46
1:A:2655:ILE:HD11	1:A:2747:ARG:HH22	1.81	0.46
1:A:3912:GLY:O	1:A:3915:PHE:CZ	2.69	0.46
1:A:4019:ASP:H	1:A:4031:GLN:HE21	1.64	0.46
3:A:5401:ADP:H2'	3:A:5401:ADP:N3	2.31	0.46
1:B:1826:PHE:O	1:B:1826:PHE:CG	2.68	0.46
1:B:2064:GLN:OE1	1:B:2065:LYS:HG3	2.15	0.46
1:B:2424:LYS:HE2	1:B:2424:LYS:HB2	1.55	0.46
1:A:2339:ILE:HG23	1:A:2353:LEU:HB3	1.97	0.46
1:A:2420:PRO:CG	1:A:2616:LEU:HD21	2.45	0.46
1:A:2938:MET:SD	1:A:3321:ILE:CG2	3.03	0.46
1:A:2999:LEU:HD11	1:A:3325:ILE:HG12	1.97	0.46
1:B:1620:PHE:CZ	1:B:1743:ASP:HB3	2.50	0.46
1:B:2220:CYS:SG	1:B:2224:SER:HB3	2.55	0.46
1:B:2302:PHE:HA	1:B:2310:LEU:HD11	1.98	0.46
1:B:3737:THR:OG1	1:B:3740:THR:CB	2.63	0.46
1:B:3911:TRP:CH2	1:B:3926:VAL:HG13	2.51	0.46
1:A:1418:SER:O	1:A:1421:TYR:CD2	2.68	0.46
1:A:2581:LEU:HD13	1:A:2633:ILE:HG22	1.96	0.46
1:A:3566:LEU:CD2	1:A:3587:LEU:HD11	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3839:ILE:HG23	1:A:3873:MET:HG3	1.97	0.46
1:A:2219:VAL:HG21	2:A:5400:ATP:N7	2.31	0.46
1:B:3701:THR:OG1	1:B:4085:THR:HG22	2.15	0.46
1:B:2081:THR:HB	2:B:5400:ATP:O2A	2.15	0.46
1:B:3725:VAL:HG22	1:B:3731:ASP:HA	1.96	0.46
1:A:3728:GLU:CG	1:A:4079:LYS:HE2	2.46	0.46
1:B:2080:LYS:HZ1	1:B:2549:ARG:CZ	2.26	0.46
1:B:3367:ILE:O	1:B:3371:VAL:HG22	2.16	0.46
1:A:1636:ILE:O	1:A:1640:VAL:HG23	2.16	0.46
1:A:1759:LYS:HE3	1:A:1761:GLU:OE2	2.16	0.46
1:A:23:LEU:O	1:A:25:GLU:N	2.49	0.46
1:A:2754:GLY:HA3	1:A:2886:HIS:CE1	2.51	0.46
1:A:3471:ASN:HB2	1:A:3478:THR:HG23	1.97	0.46
1:B:1838:ILE:HD11	1:B:1845:GLY:CA	2.46	0.46
1:B:2394:THR:H	1:B:2397:THR:HB	1.81	0.46
1:A:1644:ILE:O	1:A:1648:ILE:HG22	2.16	0.45
1:A:2336:ARG:HG2	1:A:2355:ASP:OD1	2.16	0.45
1:B:1706:LEU:HD11	1:B:1936:ILE:HG12	1.97	0.45
1:B:2358:THR:HG22	1:B:2359:ILE:N	2.31	0.45
1:A:2763:ARG:HA	3:A:5402:ADP:C4'	2.47	0.45
1:A:3459:ASP:OD2	1:A:3461:ILE:CG1	2.64	0.45
1:B:1366:VAL:CG1	1:B:1369:LYS:HE3	2.45	0.45
1:B:2856:LEU:HD21	1:B:2877:PHE:HB2	1.98	0.45
1:A:2072:LEU:HB3	1:A:2215:PHE:HE1	1.80	0.45
1:A:2761:ALA:O	1:A:2892:CYS:HB3	2.16	0.45
1:A:3373:LEU:HD13	1:A:3557:LEU:CD1	2.47	0.45
1:B:1391:GLY:HA3	1:B:1484:LYS:HZ1	1.81	0.45
1:B:2088:ILE:HG12	1:B:2151:TRP:CZ2	2.51	0.45
1:B:2336:ARG:CD	1:B:2355:ASP:OD2	2.63	0.45
1:B:2473:LEU:HD21	1:B:2475:PRO:CG	2.47	0.45
1:B:65:THR:O	1:B:66:GLN:CB	2.64	0.45
1:A:1392:LEU:CD1	1:A:1392:LEU:C	2.84	0.45
1:A:1968:PHE:N	1:A:1968:PHE:CD1	2.84	0.45
1:B:1620:PHE:HB2	1:B:1760:PHE:CE1	2.51	0.45
1:B:3683:TYR:O	1:B:3687:SER:HB2	2.16	0.45
1:A:2445:PHE:HA	1:A:2449:THR:HG21	1.97	0.45
1:A:2853:LEU:HD21	1:A:2870:GLU:HG3	1.98	0.45
1:A:2893:ASP:HA	1:A:2894:PRO:HD2	1.89	0.45
1:A:3636:GLY:CA	1:A:3642:TYR:O	2.64	0.45
1:B:1998:LEU:CD1	1:B:2022:PHE:HZ	2.29	0.45
1:B:2008:ASP:HA	1:B:2011:GLU:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2068:GLN:HA	1:B:2191:ARG:HG2	1.98	0.45
1:B:216:PRO:HA	1:B:1365:PHE:HA	1.98	0.45
1:B:2332:GLY:HA2	1:B:2335:GLN:CB	2.38	0.45
1:B:40:TRP:O	1:B:44:LYS:N	2.50	0.45
1:A:2039:LYS:HG2	1:A:2049:MET:HG3	1.98	0.45
1:A:2982:VAL:CG1	1:A:2983:GLY:H	2.29	0.45
1:A:2788:ARG:HB2	1:A:3459:ASP:HB3	1.99	0.45
1:A:2786:ILE:HD12	1:A:3460:PRO:CG	2.47	0.45
1:A:3509:LEU:CD1	1:A:3513:VAL:CG2	2.94	0.45
1:B:2034:ILE:CD1	1:B:2061:TYR:CE2	3.00	0.45
1:B:2230:LEU:HD23	1:B:2288:VAL:HG13	1.98	0.45
1:B:2249:LEU:HA	1:B:2252:LEU:HD12	1.99	0.45
1:B:2467:THR:O	1:B:2471:LEU:N	2.48	0.45
1:B:3525:ILE:CD1	1:B:3646:ILE:HG22	2.16	0.45
1:B:4084:SER:O	1:B:4088:LEU:HG	2.17	0.45
1:A:1540:LEU:HD23	1:A:1540:LEU:HA	1.73	0.45
1:A:1995:VAL:HG22	1:A:2022:PHE:HD2	1.80	0.45
1:A:2034:ILE:CD1	1:A:2061:TYR:CE2	2.99	0.45
1:B:2181:GLY:C	1:B:2182:GLU:HG3	2.36	0.45
1:B:2476:LYS:HE3	1:B:2528:ARG:CB	2.47	0.45
1:B:2745:ILE:HG12	1:B:2756:MET:HE3	1.97	0.45
1:B:3509:LEU:HD12	1:B:3513:VAL:HG21	1.98	0.45
1:B:3631:MET:HE1	1:B:3698:MET:HG3	1.99	0.45
1:A:1956:LEU:HB3	1:A:1968:PHE:CD2	2.51	0.45
1:A:2034:ILE:HD12	1:A:2061:TYR:CE2	2.52	0.45
1:A:2241:LEU:HD21	1:A:2249:LEU:HD12	1.99	0.45
1:A:2708:ASN:O	1:A:2712:LEU:HD13	2.17	0.45
1:A:3306:TRP:CH2	1:A:3594:ALA:HB1	2.45	0.45
1:B:2609:THR:HA	1:B:2612:GLN:O	2.17	0.45
1:B:2695:LEU:HD23	1:B:2743:LEU:HD11	1.99	0.45
1:B:2795:PHE:CE2	1:B:2799:LEU:HD11	2.51	0.45
1:B:2941:THR:HG22	1:B:2942:ASP:H	1.81	0.45
1:B:2941:THR:CG2	1:B:2942:ASP:H	2.29	0.45
1:B:3470:PHE:CE1	1:B:3488:VAL:HG21	2.52	0.45
1:A:1416:LYS:CA	1:A:1421:TYR:OH	2.65	0.45
1:A:1646:GLN:OE1	1:A:1762:TYR:HD1	2.00	0.45
1:A:2152:VAL:HG12	1:A:2154:PHE:CE1	2.51	0.45
1:A:2653:TRP:HB3	1:A:2654:ARG:NH1	2.31	0.45
1:A:3505:ILE:O	1:A:3510:ARG:NH1	2.50	0.45
1:A:3592:LYS:O	1:A:3596:ASN:N	2.50	0.45
1:B:1536:ARG:HD3	1:B:1841:ILE:HD13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2285:GLU:HB2	1:B:2412:ARG:NH2	2.32	0.45
1:B:2780:LYS:HD3	1:B:2813:THR:HG22	1.99	0.45
1:B:2786:ILE:O	1:B:3460:PRO:HB2	2.17	0.45
1:B:4018:SER:O	1:B:4019:ASP:HB2	2.17	0.45
1:A:3002:LEU:HD21	1:A:3370:LEU:HD11	1.99	0.45
1:B:2091:MET:CE	1:B:2149:ARG:NH1	2.80	0.45
1:B:2822:ILE:O	1:B:2822:ILE:HG13	2.17	0.45
1:B:2960:THR:CG2	1:B:2961:ILE:N	2.80	0.45
1:B:3330:TYR:OH	1:B:3346:LEU:HD13	2.16	0.45
1:A:2764:THR:HG21	1:A:2917:MET:HB3	1.99	0.44
1:A:3338:ASN:HB2	1:A:3341:GLU:HG2	1.99	0.44
1:A:3671:VAL:HA	1:A:3674:ILE:HG22	1.99	0.44
1:A:4033:LEU:HD12	1:A:4035:GLN:H	1.82	0.44
1:B:1421:TYR:O	1:B:1425:GLU:CA	2.65	0.44
1:B:1660:VAL:HG13	1:B:1728:TRP:CH2	2.51	0.44
1:B:1967:HIS:NE2	1:B:2204:PRO:HB3	2.31	0.44
1:B:1945:LEU:HD13	1:B:1994:VAL:HG21	1.99	0.44
1:A:2042:GLY:HA3	1:A:2049:MET:CE	2.46	0.44
1:A:2565:LYS:O	1:A:2569:GLN:HG3	2.16	0.44
1:A:2635:THR:O	1:A:2704:PHE:N	2.40	0.44
1:A:3737:THR:OG1	1:A:3740:THR:CB	2.63	0.44
1:B:1527:LEU:HD21	1:B:1546:LEU:HD21	1.98	0.44
1:B:2757:MET:HB2	1:B:2889:PHE:HB2	1.98	0.44
1:B:2838:ALA:HB3	1:B:2878:VAL:HG13	1.99	0.44
1:B:3632:LEU:HD13	1:B:3644:ILE:HD13	1.98	0.44
1:A:1748:PHE:CE2	1:A:1755:LEU:HD22	2.52	0.44
1:A:2048:SER:O	2:A:5400:ATP:N6	2.45	0.44
1:B:1365:PHE:HE1	1:B:1366:VAL:HG21	1.81	0.44
1:B:1421:TYR:CD1	1:B:1425:GLU:CG	2.99	0.44
1:B:1646:GLN:NE2	1:B:1758:TYR:OH	2.50	0.44
1:B:2517:LYS:NZ	1:B:2520:GLU:OE1	2.50	0.44
1:B:4020:ASN:HD22	1:B:4028:ARG:HB3	1.82	0.44
1:A:1416:LYS:O	1:A:1421:TYR:HE2	2.01	0.44
1:A:1995:VAL:HG21	1:A:2024:SER:CB	2.44	0.44
1:A:2839:ASP:O	1:A:2841:PRO:HD3	2.17	0.44
1:B:3946:VAL:HB	1:B:3947:PRO:HA	2.00	0.44
1:B:3979:ASN:C	1:B:3981:PRO:CD	2.85	0.44
1:A:1392:LEU:HD13	1:A:1393:LYS:CA	2.48	0.44
1:A:1575:LEU:O	1:A:1576:GLU:HB3	2.16	0.44
1:A:1620:PHE:CB	1:A:1760:PHE:CE1	3.00	0.44
1:A:2122:THR:O	1:A:2123:LEU:C	2.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2354:SER:OG	1:A:2357:SER:HB2	2.17	0.44
1:A:2623:THR:HG21	3:A:5401:ADP:O2'	2.17	0.44
1:A:2761:ALA:O	1:A:2892:CYS:SG	2.75	0.44
1:A:3919:LYS:HG3	1:A:3919:LYS:O	2.18	0.44
1:B:1735:TYR:HB2	1:B:1748:PHE:CZ	2.53	0.44
1:B:2385:VAL:HG23	1:B:2574:TYR:HD1	1.82	0.44
1:B:2640:THR:HG23	1:B:2643:SER:H	1.83	0.44
1:B:2728:LEU:HG	1:B:2771:ARG:HH22	1.81	0.44
1:B:3348:ILE:HA	1:B:3351:ARG:HG2	1.99	0.44
1:B:3631:MET:HE3	1:B:3698:MET:HG3	1.98	0.44
1:B:3708:PHE:HZ	1:B:3720:LEU:HD21	1.82	0.44
1:A:2745:ILE:HG12	1:A:2756:MET:CE	2.44	0.44
1:A:3305:ARG:HA	1:A:3305:ARG:HD3	1.42	0.44
1:A:3772:TRP:HZ3	1:A:3780:ASN:HD22	1.66	0.44
1:A:4024:VAL:HG23	1:A:4027:VAL:HB	2.00	0.44
1:B:1969:GLY:O	1:B:1972:THR:HB	2.17	0.44
1:B:1980:CYS:O	1:B:1983:LEU:HB3	2.17	0.44
1:B:2733:VAL:H	3:B:5402:ADP:N6	2.16	0.44
1:B:3407:LEU:HD23	1:B:3518:PHE:CE2	2.52	0.44
1:A:1681:LYS:HE2	1:A:1939:PHE:CZ	2.53	0.44
1:A:1849:GLU:CD	1:A:1899:ASN:ND2	2.70	0.44
1:A:2111:LYS:CD	1:A:2161:GLU:CG	2.87	0.44
1:A:2936:ILE:HG22	1:A:2962:ARG:HD3	1.99	0.44
1:B:2786:ILE:HD13	1:B:2823:LEU:HD11	1.98	0.44
1:A:2099:ASN:HD22	1:A:2151:TRP:HE1	1.66	0.44
1:A:3703:PHE:CE1	1:A:3766:GLU:HG2	2.53	0.44
1:A:3785:TYR:CD2	1:A:3785:TYR:N	2.85	0.44
1:B:1900:PRO:HB3	1:B:1905:ARG:HA	1.99	0.44
1:A:1650:LEU:HD11	1:A:1747:VAL:HG11	1.99	0.44
1:A:1806:VAL:HG11	1:A:1846:CYS:HB2	1.99	0.44
1:A:2654:ARG:NH1	1:A:2658:ASP:OD1	2.51	0.44
1:B:1365:PHE:O	1:B:1366:VAL:C	2.56	0.44
1:B:1536:ARG:HD3	1:B:1536:ARG:HA	1.78	0.44
1:B:1926:SER:HA	1:B:1970:LEU:CD1	2.48	0.44
1:B:2080:LYS:HZ1	1:B:2549:ARG:HE	1.65	0.44
1:B:2673:LEU:HD23	1:B:2689:ILE:HG23	2.00	0.44
1:B:4022:GLN:HA	1:B:4028:ARG:HA	2.00	0.44
1:A:1983:LEU:HD13	1:A:2000:ARG:HE	1.82	0.43
1:A:2039:LYS:O	1:A:2043:GLN:HG2	2.17	0.43
1:A:2084:TRP:CH2	1:A:2153:VAL:HG21	2.53	0.43
1:A:2177:THR:HG22	1:A:2183:ARG:HG2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3461:ILE:C	1:A:3463:SER:N	2.71	0.43
1:B:1645:PHE:HZ	1:B:1768:ARG:HD2	1.82	0.43
1:B:2473:LEU:HD11	1:B:2527:GLU:HG3	1.98	0.43
1:B:2707:VAL:HG11	1:B:2712:LEU:CD1	2.46	0.43
1:B:2738:MET:HG2	1:B:2769:LEU:HD21	1.99	0.43
1:B:3443:ALA:HB1	1:B:3450:VAL:CG2	2.48	0.43
1:B:3407:LEU:HD23	1:B:3518:PHE:HE2	1.83	0.43
1:A:1459:LEU:HD23	1:A:1465:ILE:HG13	1.99	0.43
1:A:2201:HIS:CE1	1:A:2497:TYR:CA	3.01	0.43
1:B:3024:LEU:HD13	1:B:3303:LYS:HG3	1.91	0.43
1:B:3566:LEU:CA	1:B:3583:LEU:HD21	2.48	0.43
1:A:1963:MET:HG2	1:A:1965:HIS:CE1	2.53	0.43
1:A:3407:LEU:HD23	1:A:3518:PHE:CE2	2.53	0.43
1:B:2476:LYS:HZ1	1:B:2528:ARG:HD2	1.81	0.43
1:B:2754:GLY:HA3	1:B:2886:HIS:ND1	2.32	0.43
1:B:3579:GLU:O	1:B:3582:GLU:N	2.44	0.43
1:A:1497:ILE:O	1:A:1500:ILE:HG12	2.18	0.43
1:A:2225:LYS:HD2	1:A:2281:PHE:CZ	2.54	0.43
1:B:1636:ILE:O	1:B:1640:VAL:HG23	2.19	0.43
1:B:2027:THR:HA	1:B:2028:PRO:HD3	1.76	0.43
1:B:2060:PHE:HD2	1:B:2087:VAL:HG11	1.83	0.43
1:B:2473:LEU:HD22	1:B:2475:PRO:CD	2.30	0.43
1:B:2571:TYR:HA	1:B:2574:TYR:HB2	1.99	0.43
1:B:3303:LYS:CA	1:B:3306:TRP:CD1	2.86	0.43
1:B:3544:LYS:O	1:B:3548:LEU:HB2	2.17	0.43
1:A:1866:GLN:O	1:A:1870:ASN:HB2	2.18	0.43
1:A:2761:ALA:O	1:A:2892:CYS:CB	2.66	0.43
1:A:3815:PRO:O	1:A:3821:ASN:HB3	2.17	0.43
1:B:1616:LYS:HE3	1:B:1761:GLU:HG3	2.01	0.43
1:B:2084:TRP:CZ3	1:B:2085:LYS:HG3	2.53	0.43
1:B:2080:LYS:HZ1	1:B:2549:ARG:NH2	2.11	0.43
1:A:1469:LEU:HD13	1:A:1523:LEU:CD2	2.49	0.43
1:A:1392:LEU:N	1:A:1484:LYS:HE2	2.33	0.43
1:A:1987:PHE:HB3	1:A:1988:GLY:H	1.69	0.43
1:A:1991:GLU:O	1:A:1994:VAL:HB	2.19	0.43
1:A:2581:LEU:HD11	1:A:2634:ASN:HD22	1.84	0.43
1:A:3544:LYS:HE3	1:A:3607:PHE:CD1	2.54	0.43
1:A:3877:CYS:SG	1:A:3884:LEU:HD22	2.59	0.43
1:B:1924:PRO:CB	1:B:1929:ILE:HD11	2.37	0.43
1:B:3330:TYR:CZ	1:B:3346:LEU:HD13	2.54	0.43
1:A:3696:MET:SD	1:A:3760:LEU:HB3	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3911:TRP:HH2	1:A:3926:VAL:CG1	2.32	0.43
1:B:1898:LEU:HD11	1:B:1908:LEU:CD2	2.49	0.43
1:B:1926:SER:HB2	1:B:1973:LEU:HD21	2.00	0.43
1:B:2160:PRO:O	1:B:2164:GLU:HG3	2.18	0.43
1:B:2780:LYS:HB3	1:B:2813:THR:HG22	2.00	0.43
1:B:2733:VAL:N	3:B:5402:ADP:C6	2.80	0.43
1:A:1689:LYS:HG3	1:A:1689:LYS:O	2.19	0.43
1:B:1945:LEU:HD21	1:B:1991:GLU:CB	2.49	0.43
1:B:2581:LEU:HD11	1:B:2634:ASN:HD22	1.82	0.43
1:A:1871:GLY:HA3	1:A:1879:ILE:HG21	2.01	0.43
1:A:1998:LEU:CD1	1:A:2022:PHE:CZ	3.02	0.43
1:A:2354:SER:OG	1:A:2357:SER:CB	2.67	0.43
1:A:2356:TYR:O	1:A:2372:CYS:HB2	2.19	0.43
1:A:2707:VAL:HG12	1:A:2712:LEU:CD1	2.49	0.43
1:A:3934:TRP:CB	1:A:4023:ILE:HD13	2.49	0.43
1:A:4033:LEU:CD1	1:A:4036:GLN:H	2.32	0.43
1:B:1365:PHE:O	1:B:1367:ILE:N	2.52	0.43
1:B:2154:PHE:CD1	1:B:2154:PHE:N	2.86	0.43
1:B:2464:TYR:CE2	1:B:2474:LEU:HD12	2.54	0.43
1:B:2759:ILE:HG21	1:B:2916:TRP:CZ2	2.54	0.43
1:B:3978:ASN:ND2	1:B:3980:ILE:HG22	2.34	0.43
1:A:2437:LEU:HD12	1:A:2437:LEU:H	1.84	0.43
1:A:2514:GLY:HA3	1:A:2525:THR:HA	2.01	0.43
1:A:3618:TYR:O	1:A:3622:GLY:N	2.51	0.43
1:A:3924:TRP:O	1:A:3927:TYR:HB3	2.18	0.43
1:B:1704:GLU:OE2	1:B:1768:ARG:NH1	2.52	0.43
1:B:1910:GLU:HB2	1:B:3846:MET:CA	2.48	0.43
1:B:3833:LYS:NZ	1:B:3862:THR:HG21	2.34	0.43
1:B:2080:LYS:CE	2:B:5400:ATP:O1B	2.60	0.43
1:A:1574:PHE:HB3	1:A:1576:GLU:N	2.24	0.42
1:A:1744:LEU:HD22	1:A:1760:PHE:CG	2.54	0.42
1:A:2141:ILE:HG22	1:A:2145:PHE:CG	2.54	0.42
1:A:2506:LEU:HA	1:A:2509:LEU:HD12	2.01	0.42
1:A:2763:ARG:HA	1:A:2763:ARG:HD2	1.55	0.42
1:B:3848:LEU:O	1:B:3849:SER:C	2.57	0.42
1:A:1365:PHE:CG	1:A:1366:VAL:N	2.86	0.42
1:B:1770:ILE:HD13	1:B:1770:ILE:HA	1.93	0.42
1:B:2707:VAL:CB	1:B:2712:LEU:CD1	2.76	0.42
1:B:2764:THR:HG22	1:B:2765:GLY:N	2.34	0.42
1:B:2783:GLN:HG2	1:B:2816:ILE:HB	2.01	0.42
1:A:1367:ILE:H	1:A:1367:ILE:HD12	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1539:PHE:N	1:A:1539:PHE:CD1	2.87	0.42
1:A:1826:PHE:CE1	1:A:1830:VAL:HG13	2.55	0.42
1:A:3978:ASN:O	1:A:3981:PRO:CD	2.67	0.42
1:B:1940:GLU:HG3	1:B:1941:ASP:N	2.33	0.42
1:A:1421:TYR:HE1	1:A:1425:GLU:OE2	2.02	0.42
1:A:1981:SER:CB	1:A:1982:PRO:HD3	2.45	0.42
1:A:2106:THR:H	1:A:2156:SER:HB2	1.84	0.42
1:A:2507:ARG:HB2	1:A:2550:PHE:HB2	2.01	0.42
1:B:1939:PHE:N	1:B:1939:PHE:CD2	2.87	0.42
1:B:2021:ILE:HG22	1:B:2022:PHE:HD1	1.83	0.42
1:B:2111:LYS:CD	1:B:2161:GLU:CG	2.85	0.42
1:B:2889:PHE:CD1	1:B:2902:MET:HE1	2.54	0.42
1:A:2021:ILE:HG22	1:A:2022:PHE:HD1	1.84	0.42
1:A:3810:SER:HB3	1:A:3837:GLY:HA2	2.02	0.42
1:A:3946:VAL:HA	1:A:3947:PRO:C	2.39	0.42
1:B:1497:ILE:O	1:B:1500:ILE:HG12	2.20	0.42
1:B:1977:LEU:O	1:B:1980:CYS:HB3	2.20	0.42
1:B:2158:LEU:HD13	1:B:2202:THR:HB	2.02	0.42
1:B:3584:MET:HA	1:B:3587:LEU:HB2	1.99	0.42
1:A:1421:TYR:O	1:A:1425:GLU:HB3	2.18	0.42
1:A:1743:ASP:HA	1:A:1746:SER:HB3	2.00	0.42
1:B:2080:LYS:CE	2:B:5400:ATP:O3G	2.67	0.42
1:B:2099:ASN:HA	1:B:2149:ARG:O	2.20	0.42
1:B:2386:MET:HB3	1:B:2627:ARG:CD	2.39	0.42
1:B:3519:VAL:CG1	1:B:3521:ASN:ND2	2.82	0.42
1:B:3612:ASP:O	1:B:3615:VAL:CG2	2.67	0.42
1:B:3671:VAL:HA	1:B:3674:ILE:HG22	2.01	0.42
1:B:3846:MET:HG3	1:B:3847:SER:N	2.34	0.42
1:A:2109:LEU:HD12	1:A:2129:LEU:HD23	2.01	0.42
1:A:2512:LYS:O	1:A:2513:GLN:CB	2.68	0.42
1:A:3321:ILE:H	1:A:3321:ILE:HD12	1.84	0.42
1:A:3934:TRP:HB3	1:A:4023:ILE:HD13	2.01	0.42
1:B:2159:ASP:HB2	1:B:2160:PRO:HD2	2.01	0.42
1:B:2893:ASP:HA	1:B:2894:PRO:HD2	1.96	0.42
1:A:1681:LYS:HE2	1:A:1939:PHE:HZ	1.84	0.42
1:A:1914:LYS:HD3	1:A:3959:CYS:SG	2.60	0.42
1:A:2175:ILE:HG13	1:A:2184:LEU:C	2.39	0.42
1:A:2060:PHE:CZ	1:A:2193:LEU:HD21	2.54	0.42
1:A:2356:TYR:CE1	1:A:2399:LYS:HD2	2.54	0.42
1:A:2476:LYS:N	1:A:2476:LYS:HD3	2.31	0.42
1:A:2707:VAL:HG12	1:A:2712:LEU:HD12	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3353:LEU:HD23	1:A:3358:VAL:HG11	2.02	0.42
1:A:3799:LYS:HG3	1:A:3803:LEU:HD11	2.02	0.42
1:A:3968:LEU:HA	1:A:3971:VAL:HG12	2.02	0.42
1:B:3843:ASN:O	1:B:3846:MET:HG2	2.19	0.42
1:A:216:PRO:CB	1:A:1365:PHE:N	2.83	0.42
1:A:1622:GLN:HE22	1:A:1644:ILE:H	1.67	0.42
1:A:2582:VAL:O	1:A:2582:VAL:HG23	2.20	0.42
1:B:2034:ILE:HD12	1:B:2061:TYR:CE2	2.54	0.42
1:B:2071:ILE:HB	1:B:2212:LEU:HD12	2.01	0.42
1:B:2787:HIS:HB3	1:B:3461:ILE:HG23	2.01	0.42
1:A:1874:VAL:HG21	1:A:1876:LYS:NZ	2.34	0.42
1:A:2081:THR:HG22	1:A:2085:LYS:HD2	2.01	0.42
1:A:2412:ARG:HH11	1:A:2555:ALA:HB2	1.85	0.42
1:A:2707:VAL:CB	1:A:2712:LEU:CD1	2.72	0.42
1:A:2847:GLU:HG3	1:A:2848:GLU:N	2.34	0.42
1:A:3302:GLU:O	1:A:3306:TRP:N	2.49	0.42
1:A:3327:SER:O	1:A:3331:GLU:HG3	2.20	0.42
1:A:3636:GLY:HA2	1:A:3642:TYR:O	2.20	0.42
1:A:3830:SER:HA	1:A:3833:LYS:HE3	2.02	0.42
1:A:3839:ILE:HG22	1:A:3873:MET:HA	2.02	0.42
1:A:4023:ILE:HD12	1:A:4029:ILE:HD11	2.01	0.42
1:B:1645:PHE:HB2	1:B:1697:LYS:HG3	2.02	0.42
1:B:2178:LEU:HD12	1:B:2182:GLU:HB2	2.02	0.42
1:B:2415:ILE:O	1:B:2556:ILE:HA	2.20	0.42
1:B:2082:ALA:N	2:B:5400:ATP:O2A	2.53	0.42
1:A:1625:ASP:O	1:A:1629:GLN:HG3	2.19	0.41
1:A:2701:SER:HB2	1:A:2703:ASP:O	2.20	0.41
1:A:3555:TYR:HB3	1:A:3597:ILE:HD11	2.02	0.41
1:A:3566:LEU:HD11	1:A:3570:LEU:HD11	1.99	0.41
1:A:3903:ILE:O	1:A:3907:VAL:HG23	2.20	0.41
1:B:1664:LEU:O	1:B:1721:LYS:HE3	2.19	0.41
1:B:2222:ILE:H	1:B:2222:ILE:HG13	1.67	0.41
1:B:2852:LEU:O	1:B:2856:LEU:HB2	2.20	0.41
1:B:3413:HIS:O	1:B:3417:VAL:HG23	2.20	0.41
1:B:4019:ASP:O	1:B:4030:PRO:HA	2.19	0.41
1:A:1542:ASN:O	1:A:1546:LEU:HG	2.20	0.41
1:A:2197:ASP:HB3	1:A:2549:ARG:HD2	2.02	0.41
1:A:2575:TYR:HD1	1:A:2578:ILE:HD11	1.85	0.41
1:A:2828:LEU:HD11	1:A:2908:LEU:HD11	2.01	0.41
1:A:3319:GLU:HA	1:A:3359:LYS:O	2.20	0.41
1:A:3850:TRP:NE1	1:A:3854:TYR:HB3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4024:VAL:HG11	1:A:4062:TRP:CD2	2.55	0.41
1:B:1392:LEU:HD13	1:B:1393:LYS:CA	2.49	0.41
1:B:1531:ARG:CD	1:B:1538:TYR:HA	2.50	0.41
1:B:1534:PHE:HD2	1:B:1537:PHE:CD2	2.38	0.41
1:B:3466:ILE:HD13	1:B:3509:LEU:HD13	2.02	0.41
1:B:3471:ASN:HB2	1:B:3478:THR:HG23	2.01	0.41
1:A:1392:LEU:HD22	1:A:1393:LYS:H	1.86	0.41
1:A:1956:LEU:CB	1:A:1968:PHE:CD2	3.04	0.41
1:A:1967:HIS:C	1:A:1968:PHE:CD1	2.87	0.41
1:A:3330:TYR:CE1	1:A:3334:PHE:CE2	3.08	0.41
1:A:3631:MET:HE2	1:A:3632:LEU:HG	2.02	0.41
1:A:4023:ILE:HD13	1:A:4023:ILE:HG21	1.70	0.41
1:B:2091:MET:HE3	1:B:2149:ARG:NH1	2.35	0.41
1:B:3645:SER:CB	1:B:3890:GLN:NE2	2.80	0.41
1:A:1534:PHE:HD2	1:A:1537:PHE:CE2	2.38	0.41
1:A:2095:ASP:CG	1:A:2149:ARG:HH21	2.23	0.41
1:A:2339:ILE:HG23	1:A:2353:LEU:HD23	2.03	0.41
1:A:2929:ALA:O	1:A:2933:VAL:HG22	2.21	0.41
1:A:3612:ASP:C	1:A:3615:VAL:HG22	2.41	0.41
1:A:3951:SER:HB2	1:A:4002:LYS:HD2	2.02	0.41
1:A:54:LEU:HA	1:A:55:PRO:HA	1.83	0.41
1:B:2493:LYS:HA	1:B:2493:LYS:HD2	1.81	0.41
1:B:3464:ARG:O	1:B:3467:SER:O	2.37	0.41
1:B:3519:VAL:CG1	1:B:3521:ASN:HD21	2.33	0.41
1:B:2220:CYS:SG	2:B:5400:ATP:N1	2.89	0.41
1:A:1660:VAL:HG13	1:A:1728:TRP:CH2	2.55	0.41
1:A:1727:LEU:O	1:A:1731:VAL:HG23	2.20	0.41
1:A:1744:LEU:HD22	1:A:1760:PHE:CD2	2.54	0.41
1:A:1826:PHE:HE2	1:A:1831:LEU:CB	2.05	0.41
1:A:1951:HIS:HD2	1:A:2021:ILE:HD12	1.84	0.41
1:A:2378:VAL:HG11	1:A:2392:ILE:HD12	2.02	0.41
1:A:2474:LEU:HB3	1:A:2526:ILE:HG22	2.01	0.41
1:A:2754:GLY:HA3	1:A:2886:HIS:ND1	2.36	0.41
1:A:3995:GLY:HA2	1:A:3998:ILE:CD1	2.50	0.41
1:B:1469:LEU:HD13	1:B:1523:LEU:HD21	2.01	0.41
1:B:1593:ASN:HD21	1:B:1621:THR:CB	2.31	0.41
1:B:1838:ILE:HD11	1:B:1845:GLY:N	2.35	0.41
1:B:2866:LEU:HD12	1:B:2867:LEU:H	1.84	0.41
1:B:3311:LYS:HG2	1:B:3315:LYS:NZ	2.35	0.41
1:B:3832:SER:O	1:B:3836:GLY:N	2.49	0.41
1:B:3939:ILE:HG23	1:B:3950:PHE:HE2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1495:THR:HB	1:A:1498:GLU:HB2	2.01	0.41
1:A:1579:ILE:HG13	1:A:1598:LEU:HD11	2.02	0.41
1:A:2476:LYS:HB3	1:A:2482:LEU:HB2	2.02	0.41
1:A:2640:THR:HG23	1:A:2643:SER:H	1.85	0.41
1:A:2821:ASN:O	1:A:2823:LEU:HD13	2.21	0.41
1:A:3786:PHE:CD1	1:A:3893:ASP:HB2	2.56	0.41
1:A:3692:LYS:HG3	1:A:3898:GLU:HG3	2.02	0.41
1:A:1726:LEU:HD13	1:A:3984:GLN:HB3	2.01	0.41
1:B:1375:LYS:O	1:B:1379:LYS:HG2	2.21	0.41
1:B:1626:CYS:HB2	1:B:1643:TYR:CD2	2.56	0.41
1:B:2982:VAL:HG12	1:B:2983:GLY:N	2.35	0.41
1:B:3896:VAL:HG12	1:B:3898:GLU:HG2	2.02	0.41
1:A:3886:ALA:N	1:A:3887:PRO:CD	2.81	0.41
1:A:2765:GLY:CA	3:A:5402:ADP:O2A	2.59	0.41
1:B:1578:PHE:HB3	1:B:1595:LYS:HB2	2.02	0.41
1:B:1706:LEU:CD1	1:B:1936:ILE:HG12	2.51	0.41
1:B:2285:GLU:CB	1:B:2412:ARG:NH2	2.83	0.41
1:B:2788:ARG:H	1:B:3459:ASP:HB2	1.85	0.41
1:B:3950:PHE:HE1	1:B:4006:VAL:HB	1.86	0.41
1:B:2732:MET:CG	3:B:5402:ADP:C6	3.02	0.41
1:A:1409:LEU:O	1:A:1413:VAL:HG23	2.20	0.41
1:A:1744:LEU:CD2	1:A:1760:PHE:CD2	3.03	0.41
1:A:2131:THR:HG22	1:A:2176:LEU:CD2	2.50	0.41
1:A:2728:LEU:HB2	1:A:2771:ARG:HH12	1.86	0.41
1:A:2982:VAL:HG12	1:A:2983:GLY:H	1.85	0.41
1:A:3971:VAL:HA	1:A:3974:THR:HG22	2.03	0.41
1:B:1697:LYS:O	1:B:1701:LEU:HG	2.20	0.41
1:B:1926:SER:HB3	1:B:1970:LEU:HD12	1.97	0.41
1:B:3304:GLU:O	1:B:3305:ARG:C	2.59	0.41
1:B:3409:ASP:HB3	1:B:3518:PHE:CB	2.47	0.41
1:B:3757:ILE:HD11	1:B:4074:GLU:HG2	2.02	0.41
1:B:3826:GLN:HB2	1:B:3854:TYR:CZ	2.56	0.41
1:A:1540:LEU:HD11	1:A:1548:ILE:HD11	1.99	0.41
1:A:1822:CYS:SG	1:A:1850:PHE:HA	2.61	0.41
1:A:2226:ILE:HG23	1:A:2288:VAL:CG2	2.46	0.41
1:A:3338:ASN:H	1:A:3341:GLU:HB2	1.83	0.41
1:A:3464:ARG:O	1:A:3467:SER:O	2.38	0.41
1:A:3544:LYS:O	1:A:3548:LEU:HB2	2.21	0.41
1:A:3566:LEU:HD23	1:A:3587:LEU:HD11	2.02	0.41
1:A:3645:SER:HB3	1:A:3890:GLN:HE21	1.86	0.41
1:A:3948:HIS:NE2	1:A:4072:ASN:CG	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1612:ASP:HA	1:B:1615:ILE:HG12	2.02	0.41
1:B:1838:ILE:HD11	1:B:1845:GLY:HA3	2.03	0.41
1:B:2099:ASN:HD22	1:B:2151:TRP:HE1	1.68	0.41
1:B:2590:GLU:N	1:B:2591:PRO:HD2	2.36	0.41
1:B:4065:LEU:HD11	1:B:4070:ILE:CD1	2.45	0.41
1:A:1462:ASN:HB2	1:A:1465:ILE:CG2	2.42	0.41
1:A:2084:TRP:CZ3	1:A:2085:LYS:HG3	2.56	0.41
1:A:2488:GLU:CG	1:A:2491:LEU:HD12	2.48	0.41
1:A:2485:PHE:CZ	1:A:2534:ALA:HB2	2.56	0.41
1:A:3528:ARG:HH11	1:A:3650:LEU:HD11	1.86	0.41
1:A:3703:PHE:HE2	1:A:3719:VAL:HG21	1.86	0.41
1:B:1830:VAL:HG23	1:B:1833:ARG:NH2	2.36	0.41
1:B:2782:VAL:HB	1:B:2815:LEU:HD12	2.02	0.41
1:A:1664:LEU:HD21	1:A:1715:LEU:HD22	2.03	0.41
1:A:2266:PHE:CD1	1:A:2326:LEU:HD21	2.53	0.41
1:A:2408:LEU:HD13	1:A:2432:LEU:HD21	2.03	0.41
1:A:2985:ASN:N	1:A:2986:PRO:CD	2.84	0.41
1:A:3817:GLY:H	1:A:3821:ASN:CB	2.34	0.41
1:A:2257:PHE:CD1	1:A:2262:LEU:HD11	2.56	0.40
1:A:2332:GLY:HA2	1:A:2335:GLN:CG	2.50	0.40
1:A:2819:GLU:HB3	1:A:2891:ILE:HG22	2.03	0.40
1:B:2225:LYS:HD2	1:B:2281:PHE:CZ	2.55	0.40
1:B:2299:ARG:HA	1:B:2302:PHE:CD2	2.56	0.40
1:B:2320:ARG:NH1	1:B:2406:ASP:OD2	2.40	0.40
1:B:2766:LYS:HD2	1:B:2890:THR:HG22	2.02	0.40
1:B:3629:PHE:O	1:B:3633:GLU:HB2	2.20	0.40
1:B:3833:LYS:HZ3	1:B:3862:THR:HG21	1.85	0.40
1:B:3839:ILE:HG22	1:B:3871:PHE:HE1	1.86	0.40
1:A:1392:LEU:HD21	1:A:1487:THR:HG21	2.02	0.40
1:A:1479:LEU:HD11	1:A:1515:SER:HB3	2.02	0.40
1:A:1702:LEU:HD23	1:A:1702:LEU:HA	1.91	0.40
1:A:2060:PHE:HZ	1:A:2193:LEU:HD21	1.86	0.40
1:A:2380:LEU:HD12	1:A:2380:LEU:C	2.42	0.40
1:A:3458:PHE:HD2	1:A:3506:PRO:HG2	1.86	0.40
1:A:3844:ILE:HD11	1:A:3855:LEU:HD22	2.03	0.40
1:A:3946:VAL:HB	1:A:3947:PRO:HA	2.03	0.40
1:B:1939:PHE:O	1:B:1940:GLU:HB3	2.21	0.40
1:B:2151:TRP:CE3	1:B:2193:LEU:HD11	2.54	0.40
1:A:1637:GLU:C	1:A:1686:LYS:HZ2	2.20	0.40
1:A:3566:LEU:HD13	1:A:3570:LEU:HD12	2.03	0.40
1:B:2306:ASP:HB2	1:B:2309:SER:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2494:LEU:HB2	1:B:2499:SER:N	2.37	0.40
1:B:2575:TYR:HD1	1:B:2578:ILE:HD11	1.85	0.40
1:B:2757:MET:CB	1:B:2889:PHE:HB2	2.52	0.40
1:B:3767:PHE:HB3	1:B:3769:VAL:HG23	2.03	0.40
1:A:1703:VAL:HG21	1:A:1768:ARG:HB2	2.03	0.40
1:A:3509:LEU:HD12	1:A:3513:VAL:HG21	1.97	0.40
1:B:2572:GLU:CG	1:B:2590:GLU:HG3	2.51	0.40
1:B:2751:GLN:H	1:B:2751:GLN:HG2	1.74	0.40
1:B:2755:HIS:HB3	1:B:2912:CYS:SG	2.62	0.40
1:B:2972:PHE:CE2	1:B:3329:ILE:HG12	2.57	0.40
1:B:3939:ILE:HG22	1:B:3956:PHE:CE2	2.57	0.40
1:A:3519:VAL:HG13	1:A:3521:ASN:ND2	2.35	0.40
1:A:3528:ARG:HD2	1:A:3650:LEU:HD11	2.03	0.40
1:A:3570:LEU:HD23	1:A:3580:ASN:CG	2.42	0.40
1:A:3848:LEU:HD12	1:A:3884:LEU:HD12	2.04	0.40
1:B:1495:THR:HB	1:B:1498:GLU:CG	2.51	0.40
1:B:2276:LEU:HD13	1:B:2417:CYS:SG	2.62	0.40
1:B:2542:GLY:O	1:B:2544:ILE:HD12	2.21	0.40
1:B:2832:ASN:OD1	1:B:2907:ALA:HB3	2.21	0.40
1:B:3406:PHE:CZ	1:B:3505:ILE:HG21	2.57	0.40
1:B:3772:TRP:HZ3	1:B:3780:ASN:ND2	2.18	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [\(i\)](#)

### 5.3.1 Protein backbone [\(i\)](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	2640/2695 (98%)	2503 (95%)	121 (5%)	16 (1%)	27 66
1	B	2640/2695 (98%)	2506 (95%)	116 (4%)	18 (1%)	24 63
All	All	5280/5390 (98%)	5009 (95%)	237 (4%)	34 (1%)	27 66

All (34) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	24	GLU
1	A	1391	GLY
1	A	2369	SER
1	A	3309	THR
1	B	1391	GLY
1	B	2761	ALA
1	B	3306	TRP
1	A	212	GLY
1	A	1633	GLY
1	B	2763	ARG
1	B	2764	THR
1	B	2990	GLY
1	B	3482	GLY
1	A	2562	PRO
1	A	2990	GLY
1	A	3980	ILE
1	A	115	GLU
1	A	2513	GLN
1	A	2519	PRO
1	A	3809	GLU
1	B	66	GLN
1	B	2519	PRO
1	B	3402	ASP
1	A	66	GLN
1	B	2562	PRO
1	A	3482	GLY
1	B	1366	VAL
1	B	3462	ILE
1	B	3980	ILE
1	B	1633	GLY
1	B	2028	PRO
1	B	1470	PRO
1	B	2141	ILE
1	A	1470	PRO

### 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	2218/2453 (90%)	2128 (96%)	90 (4%)	33	67
1	B	2218/2453 (90%)	2133 (96%)	85 (4%)	36	69
All	All	4436/4906 (90%)	4261 (96%)	175 (4%)	35	69

All (175) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1383	TYR
1	A	1422	LYS
1	A	1463	LEU
1	A	1486	ILE
1	A	1504	ASN
1	A	1553	LYS
1	A	1635	ASP
1	A	1694	VAL
1	A	1794	PHE
1	A	1802	LYS
1	A	1818	VAL
1	A	1832	SER
1	A	1903	ASN
1	A	1929	ILE
1	A	1936	ILE
1	A	1959	LYS
1	A	2064	GLN
1	A	2075	LYS
1	A	2078	CYS
1	A	2080	LYS
1	A	2122	THR
1	A	2154	PHE
1	A	2155	ASP
1	A	2202	THR
1	A	2239	ASN
1	A	2246	LEU
1	A	2276	LEU
1	A	2285	GLU
1	A	2323	LEU
1	A	2346	PHE
1	A	2428	MET
1	A	2472	THR
1	A	2474	LEU
1	A	2476	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	2566	SER
1	A	2681	LEU
1	A	2694	LEU
1	A	2785	LYS
1	A	2829	GLU
1	A	2843	LEU
1	A	2856	LEU
1	A	2865	LEU
1	A	2873	LEU
1	A	2961	ILE
1	A	3023	LYS
1	A	3304	GLU
1	A	3305	ARG
1	A	3306	TRP
1	A	3307	LEU
1	A	3312	GLN
1	A	3316	THR
1	A	3355	LYS
1	A	3372	THR
1	A	3386	LYS
1	A	3391	LEU
1	A	3400	SER
1	A	3439	ARG
1	A	3483	ASP
1	A	3534	LEU
1	A	3536	GLU
1	A	3538	ASN
1	A	3557	LEU
1	A	3559	LEU
1	A	3567	LEU
1	A	3578	LEU
1	A	3598	GLU
1	A	3601	LEU
1	A	3673	GLU
1	A	3717	GLU
1	A	3729	SER
1	A	3737	THR
1	A	3794	VAL
1	A	3799	LYS
1	A	3802	GLU
1	A	3805	LYS
1	A	3811	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	3844	ILE
1	A	3871	PHE
1	A	3899	ASP
1	A	3900	ILE
1	A	3906	THR
1	A	3940	THR
1	A	3943	THR
1	A	3952	LYS
1	A	3960	ASP
1	A	3980	ILE
1	A	3982	TRP
1	A	4040	GLU
1	A	4064	GLN
1	A	4068	GLU
1	B	1399	ASP
1	B	1421	TYR
1	B	1455	LEU
1	B	1475	LYS
1	B	1486	ILE
1	B	1491	PHE
1	B	1493	LEU
1	B	1525	THR
1	B	1689	LYS
1	B	1794	PHE
1	B	1832	SER
1	B	1936	ILE
1	B	1939	PHE
1	B	1971	ARG
1	B	2003	LEU
1	B	2035	VAL
1	B	2064	GLN
1	B	2109	LEU
1	B	2155	ASP
1	B	2202	THR
1	B	2222	ILE
1	B	2239	ASN
1	B	2255	ASP
1	B	2295	ILE
1	B	2310	LEU
1	B	2346	PHE
1	B	2351	GLN
1	B	2357	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	2387	ARG
1	B	2395	ILE
1	B	2428	MET
1	B	2476	LYS
1	B	2563	SER
1	B	2566	SER
1	B	2574	TYR
1	B	2587	SER
1	B	2613	SER
1	B	2664	LYS
1	B	2689	ILE
1	B	2694	LEU
1	B	2702	LEU
1	B	2757	MET
1	B	2829	GLU
1	B	2833	THR
1	B	2843	LEU
1	B	2853	LEU
1	B	2873	LEU
1	B	2967	ASN
1	B	3001	LYS
1	B	3012	GLU
1	B	3329	ILE
1	B	3360	TYR
1	B	3372	THR
1	B	3391	LEU
1	B	3400	SER
1	B	3401	GLN
1	B	3502	SER
1	B	3510	ARG
1	B	3531	ASP
1	B	3534	LEU
1	B	3536	GLU
1	B	3538	ASN
1	B	3565	ARG
1	B	3567	LEU
1	B	3605	GLU
1	B	3618	TYR
1	B	3729	SER
1	B	3737	THR
1	B	3744	LEU
1	B	3811	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	3813	ILE
1	B	3831	LYS
1	B	3871	PHE
1	B	3876	THR
1	B	3899	ASP
1	B	3906	THR
1	B	3917	THR
1	B	3943	THR
1	B	3958	ASP
1	B	3960	ASP
1	B	3980	ILE
1	B	3982	TRP
1	B	4004	LEU
1	B	4021	LEU
1	B	4040	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (65) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	1533	GLN
1	A	1605	GLN
1	A	1622	GLN
1	A	1745	ASN
1	A	1851	ASN
1	A	1864	ASN
1	A	1873	GLN
1	A	1899	ASN
1	A	1951	HIS
1	A	1965	HIS
1	A	2068	GLN
1	A	2099	ASN
1	A	2228	HIS
1	A	2274	HIS
1	A	2282	ASN
1	A	2335	GLN
1	A	2383	HIS
1	A	2409	ASN
1	A	2536	ASN
1	A	2598	HIS
1	A	2634	ASN
1	A	2683	ASN
1	A	2688	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	2753	GLN
1	A	3323	ASN
1	A	3338	ASN
1	A	3420	ASN
1	A	3521	ASN
1	A	3588	ASN
1	A	3685	GLN
1	A	3780	ASN
1	A	3890	GLN
1	A	4020	ASN
1	A	4031	GLN
1	A	4077	GLN
1	B	1449	GLN
1	B	1501	HIS
1	B	1622	GLN
1	B	1646	GLN
1	B	1736	GLN
1	B	1899	ASN
1	B	1951	HIS
1	B	2068	GLN
1	B	2099	ASN
1	B	2228	HIS
1	B	2282	ASN
1	B	2293	HIS
1	B	2383	HIS
1	B	2409	ASN
1	B	2536	ASN
1	B	2601	ASN
1	B	2634	ASN
1	B	2688	ASN
1	B	2753	GLN
1	B	3323	ASN
1	B	3338	ASN
1	B	3497	HIS
1	B	3521	ASN
1	B	3624	HIS
1	B	3780	ASN
1	B	3783	ASN
1	B	3868	HIS
1	B	3890	GLN
1	B	4020	ASN
1	B	4077	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 10 ligands modelled in this entry, 2 are monoatomic - leaving 8 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
2	ATP	A	5400	-	27,33,33	1.07	2 (7%)	27,52,52	1.87	4 (14%)
3	ADP	A	5401	-	25,29,29	1.25	2 (8%)	25,45,45	1.67	6 (24%)
3	ADP	A	5402	-	25,29,29	1.03	1 (4%)	25,45,45	2.01	4 (16%)
4	SO4	A	5403	-	4,4,4	0.43	0	6,6,6	0.73	0
2	ATP	B	5400	-	27,33,33	1.04	1 (3%)	27,52,52	1.86	5 (18%)
3	ADP	B	5401	-	25,29,29	1.19	1 (4%)	25,45,45	2.02	6 (24%)
3	ADP	B	5402	-	25,29,29	1.03	1 (4%)	25,45,45	1.87	4 (16%)
4	SO4	B	5403	-	4,4,4	0.43	0	6,6,6	0.45	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
2	ATP	A	5400	-	-	0/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	ADP	A	5401	-	-	0/12/32/32	0/3/3/3
3	ADP	A	5402	-	-	0/12/32/32	0/3/3/3
4	SO4	A	5403	-	-	0/0/0/0	0/0/0/0
2	ATP	B	5400	-	-	0/18/38/38	0/3/3/3
3	ADP	B	5401	-	-	0/12/32/32	0/3/3/3
3	ADP	B	5402	-	-	0/12/32/32	0/3/3/3
4	SO4	B	5403	-	-	0/0/0/0	0/0/0/0

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	5400	ATP	C8-N9	-2.11	1.34	1.36
3	A	5401	ADP	C2-N3	2.63	1.36	1.32
2	A	5400	ATP	C5-C4	2.99	1.47	1.40
3	A	5402	ADP	C5-C4	3.03	1.47	1.40
2	B	5400	ATP	C5-C4	3.07	1.47	1.40
3	B	5402	ADP	C5-C4	3.24	1.47	1.40
3	B	5401	ADP	C5-C4	3.27	1.47	1.40
3	A	5401	ADP	C5-C4	3.60	1.48	1.40

All (29) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	5402	ADP	N3-C2-N1	-7.30	122.61	128.86
3	B	5401	ADP	N3-C2-N1	-7.01	122.86	128.86
3	B	5402	ADP	N3-C2-N1	-6.52	123.28	128.86
2	B	5400	ATP	N3-C2-N1	-5.95	123.77	128.86
2	A	5400	ATP	N3-C2-N1	-5.91	123.80	128.86
3	A	5401	ADP	N3-C2-N1	-5.05	124.55	128.86
3	B	5401	ADP	PA-O3A-PB	-3.76	119.99	132.63
3	B	5402	ADP	PA-O3A-PB	-3.58	120.58	132.63
2	A	5400	ATP	PB-O3B-PG	-3.57	120.64	132.63
2	A	5400	ATP	PA-O3A-PB	-3.53	120.76	132.63
2	B	5400	ATP	PB-O3B-PG	-3.52	120.80	132.63
2	B	5400	ATP	PA-O3A-PB	-3.34	121.41	132.63
3	A	5402	ADP	PA-O3A-PB	-3.23	121.78	132.63
3	A	5402	ADP	C4-C5-N7	-2.98	106.53	109.41
2	A	5400	ATP	C4-C5-N7	-2.93	106.58	109.41
2	B	5400	ATP	C4-C5-N7	-2.92	106.59	109.41
3	A	5401	ADP	PA-O3A-PB	-2.88	122.95	132.63
3	B	5402	ADP	C4-C5-N7	-2.53	106.97	109.41
3	B	5401	ADP	C4-C5-N7	-2.31	107.18	109.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	5401	ADP	C4-C5-N7	-2.25	107.23	109.41
3	B	5401	ADP	O2'-C2'-C3'	-2.02	105.35	111.83
3	A	5401	ADP	O2A-PA-O1A	2.05	122.58	112.14
3	B	5401	ADP	C2-N1-C6	2.06	122.24	118.75
3	B	5401	ADP	C4'-O4'-C1'	2.18	112.10	109.83
2	B	5400	ATP	O3G-PG-O2G	2.19	116.24	107.59
3	B	5402	ADP	O3B-PB-O2B	2.21	116.31	107.59
3	A	5401	ADP	N6-C6-N1	2.21	123.16	118.57
3	A	5401	ADP	C2'-C3'-C4'	2.51	107.43	102.62
3	A	5402	ADP	C4'-O4'-C1'	2.68	112.62	109.83

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

8 monomers are involved in 89 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	5400	ATP	6	0
3	A	5401	ADP	11	0
3	A	5402	ADP	17	0
4	A	5403	SO4	2	0
2	B	5400	ATP	22	0
3	B	5401	ADP	6	0
3	B	5402	ADP	23	0
4	B	5403	SO4	2	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	2650/2695 (98%)	0.60	296 (11%) <b>5</b> <b>6</b>	88, 185, 310, 500	1 (0%)
1	B	2650/2695 (98%)	0.70	256 (9%) <b>8</b> <b>9</b>	96, 180, 317, 500	1 (0%)
All	All	5300/5390 (98%)	0.65	552 (10%) <b>6</b> <b>8</b>	88, 183, 311, 500	2 (0%)

All (552) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	49	LEU	35.4
1	B	33	GLU	29.6
1	B	83	GLY	28.0
1	B	69	ALA	26.8
1	A	131	MET	25.1
1	B	91	ILE	24.1
1	B	199	ALA	23.9
1	B	198	ILE	23.4
1	B	66	GLN	22.9
1	B	84	CYS	22.1
1	B	16	THR	21.6
1	B	92	SER	19.4
1	A	1460	GLY	18.9
1	B	52	PRO	18.7
1	B	15	PRO	18.6
1	B	35	ASP	17.5
1	B	4	LEU	15.5
1	B	155	TYR	15.3
1	A	132	PHE	15.2
1	B	189	ASP	15.1
1	B	34	ARG	14.9
1	B	200	TRP	14.9
1	B	152	PHE	14.2
1	B	50	GLU	13.9

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Mol	Chain	Res	Type	RSRZ
1	B	95	GLU	13.5
1	B	14	GLN	13.1
1	B	68	MET	13.1
1	A	1459	LEU	13.0
1	B	17	ARG	12.4
1	B	32	TYR	12.3
1	B	186	PRO	11.9
1	B	88	ARG	11.8
1	B	89	ALA	11.7
1	B	87	GLU	11.6
1	B	18	LEU	11.1
1	B	48	GLY	10.4
1	A	143	ASN	10.3
1	A	27	TYR	10.2
1	B	149	HIS	10.0
1	B	5	GLY	9.8
1	B	65	THR	9.7
1	B	151	ASP	9.6
1	B	90	GLU	9.5
1	A	31	LEU	9.4
1	A	3580	ASN	9.0
1	B	171	ALA	8.8
1	A	1483	TYR	8.6
1	B	1483	TYR	8.4
1	B	194	SER	8.3
1	A	42	ASN	8.3
1	A	108	ILE	8.2
1	B	168	CYS	8.1
1	B	36	GLU	8.0
1	A	3575	GLY	7.9
1	B	193	LYS	7.7
1	A	3581	ASP	7.7
1	B	45	PHE	7.6
1	B	70	ILE	7.6
1	B	73	TYR	7.6
1	A	115	GLU	7.5
1	B	53	ASN	7.4
1	A	210	GLY	7.4
1	A	28	GLU	7.3
1	A	202	LEU	7.3
1	B	11	GLY	7.2
1	B	6	TYR	7.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	B	19	LEU	7.2
1	B	3580	ASN	7.2
1	A	40	TRP	7.1
1	B	96	GLY	7.1
1	B	8	LYS	7.1
1	A	35	ASP	7.0
1	A	148	THR	6.8
1	A	3578	LEU	6.8
1	B	3	ILE	6.7
1	A	3979	ASN	6.7
1	A	1549	ILE	6.7
1	A	2364	ASP	6.5
1	B	72	ARG	6.3
1	A	1500	ILE	6.3
1	A	134	ASP	6.2
1	B	143	ASN	6.2
1	A	2687	GLY	6.2
1	B	174	LYS	6.1
1	A	2362	ALA	6.0
1	A	173	PRO	6.0
1	A	2942	ASP	6.0
1	B	2941	THR	5.9
1	A	1504	ASN	5.9
1	A	29	GLU	5.9
1	B	3567	LEU	5.9
1	B	94	LEU	5.9
1	B	55	PRO	5.9
1	A	1458	ILE	5.9
1	B	190	LYS	5.9
1	A	1445	TRP	5.9
1	B	3300	THR	5.8
1	A	1490	ALA	5.7
1	B	172	PHE	5.7
1	A	150	PRO	5.7
1	A	130	LYS	5.7
1	A	1390	SER	5.7
1	B	169	LEU	5.7
1	A	3306	TRP	5.6
1	B	1669	PHE	5.6
1	A	1548	ILE	5.6
1	B	2938	MET	5.6
1	A	54	LEU	5.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	B	13	VAL	5.5
1	B	1459	LEU	5.5
1	B	3575	GLY	5.4
1	B	3735	LYS	5.3
1	B	2368	PHE	5.3
1	B	30	HIS	5.3
1	A	1392	LEU	5.3
1	B	61	ASP	5.2
1	A	3579	GLU	5.2
1	A	3577	MET	5.1
1	B	98	VAL	5.0
1	A	2302	PHE	5.0
1	B	7	TRP	5.0
1	A	41	ARG	5.0
1	A	1368	GLU	5.0
1	B	10	LYS	4.9
1	B	85	PRO	4.9
1	A	1389	SER	4.9
1	B	2	PRO	4.9
1	A	1558	VAL	4.9
1	A	3980	ILE	4.8
1	A	2363	ASN	4.8
1	A	1383	TYR	4.7
1	B	39	LYS	4.7
1	A	1434	LYS	4.7
1	B	184	ALA	4.7
1	A	64	LEU	4.6
1	A	2248	LYS	4.6
1	B	3741	ASN	4.6
1	B	137	CYS	4.6
1	A	2808	LEU	4.6
1	A	3562	LEU	4.5
1	B	134	ASP	4.5
1	A	89	ALA	4.5
1	A	116	THR	4.5
1	A	1879	ILE	4.5
1	A	63	LYS	4.5
1	B	2121	ALA	4.5
1	A	3576	ASN	4.5
1	A	90	GLU	4.4
1	B	187	GLN	4.4
1	A	3555	TYR	4.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	A	133	GLU	4.4
1	A	1388	HIS	4.4
1	B	3024	LEU	4.3
1	B	74	ILE	4.3
1	A	81	LEU	4.3
1	A	144	GLY	4.3
1	A	216	PRO	4.3
1	A	129	LEU	4.2
1	A	32	TYR	4.2
1	B	67	SER	4.2
1	B	192	LEU	4.1
1	B	1394	LEU	4.1
1	B	3542	GLN	4.1
1	B	1458	ILE	4.1
1	A	2854	ASN	4.1
1	B	24	GLU	4.1
1	B	86	LYS	4.1
1	A	3301	PHE	4.1
1	A	75	ALA	4.1
1	B	154	LEU	4.0
1	B	3734	PRO	4.0
1	B	3016	PHE	4.0
1	B	153	MET	4.0
1	A	1493	LEU	4.0
1	A	209	PHE	4.0
1	A	3583	LEU	4.0
1	B	3304	GLU	3.9
1	B	1727	LEU	3.9
1	A	3739	ASP	3.9
1	B	3573	SER	3.9
1	A	1492	GLN	3.9
1	B	3763	PHE	3.9
1	A	3017	VAL	3.9
1	B	1485	MET	3.9
1	B	3303	LYS	3.9
1	A	1452	TRP	3.9
1	B	145	ASP	3.9
1	B	3585	VAL	3.8
1	A	2941	THR	3.8
1	A	3564	LYS	3.8
1	B	202	LEU	3.8
1	B	4035	GLN	3.8

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Mol	Chain	Res	Type	RSRZ
1	A	1479	LEU	3.8
1	A	1546	LEU	3.8
1	B	31	LEU	3.8
1	B	1945	LEU	3.8
1	B	64	LEU	3.7
1	A	3591	LYS	3.7
1	B	9	ILE	3.7
1	A	86	LYS	3.7
1	B	1	SER	3.7
1	A	1644	ILE	3.7
1	A	1394	LEU	3.7
1	A	142	LEU	3.7
1	B	2172	ASP	3.7
1	B	42	ASN	3.7
1	A	1572	ILE	3.6
1	B	3703	PHE	3.6
1	A	4034	LEU	3.6
1	B	1502	ILE	3.6
1	A	2852	LEU	3.6
1	A	147	VAL	3.6
1	B	1383	TYR	3.6
1	A	19	LEU	3.6
1	A	1602	ILE	3.6
1	A	2676	THR	3.6
1	A	1378	TRP	3.6
1	B	2364	ASP	3.6
1	B	1705	TYR	3.6
1	B	3020	GLY	3.5
1	A	1530	GLN	3.5
1	A	2916	TRP	3.5
1	A	3920	ILE	3.5
1	A	211	GLY	3.5
1	B	1762	TYR	3.5
1	A	2965	VAL	3.5
1	B	3617	GLU	3.5
1	A	3024	LEU	3.5
1	A	1550	GLY	3.5
1	A	2937	PRO	3.5
1	A	3589	ASN	3.4
1	A	138	HIS	3.4
1	A	2574	TYR	3.4
1	B	63	LYS	3.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	B	1456	TYR	3.4
1	A	1738	ASN	3.4
1	A	1401	LEU	3.4
1	A	151	ASP	3.4
1	B	135	ARG	3.4
1	A	3570	LEU	3.4
1	B	3569	GLU	3.4
1	A	72	ARG	3.4
1	B	3919	LYS	3.4
1	A	1472	GLU	3.4
1	A	1489	ARG	3.3
1	B	3571	ASN	3.3
1	A	1391	GLY	3.3
1	A	2371	PHE	3.3
1	A	171	ALA	3.3
1	B	3579	GLU	3.3
1	A	18	LEU	3.3
1	A	2870	GLU	3.2
1	B	44	LYS	3.2
1	A	87	GLU	3.2
1	A	1441	ILE	3.2
1	A	2029	LEU	3.2
1	A	2611	LEU	3.2
1	B	1445	TRP	3.2
1	B	148	THR	3.2
1	A	3561	ASN	3.2
1	A	16	THR	3.2
1	B	23	LEU	3.2
1	B	3566	LEU	3.2
1	B	3543	ARG	3.2
1	B	131	MET	3.2
1	A	1607	TRP	3.1
1	B	3984	GLN	3.1
1	B	3572	ASN	3.1
1	A	3551	LEU	3.1
1	A	1597	GLU	3.1
1	A	88	ARG	3.1
1	A	109	ALA	3.1
1	A	57	TYR	3.1
1	A	1636	ILE	3.1
1	A	1565	MET	3.1
1	A	2918	GLY	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	B	1767	GLU	3.0
1	A	1581	GLY	3.0
1	B	3873	MET	3.0
1	B	1898	LEU	3.0
1	A	2368	PHE	3.0
1	B	3028	VAL	3.0
1	A	3584	MET	3.0
1	B	4052	THR	3.0
1	A	3019	VAL	3.0
1	B	82	GLY	3.0
1	A	2179	PRO	3.0
1	A	2303	GLN	3.0
1	B	3568	GLU	3.0
1	B	1549	ILE	3.0
1	A	137	CYS	3.0
1	B	132	PHE	2.9
1	A	4029	ILE	2.9
1	B	51	PHE	2.9
1	B	2173	ASN	2.9
1	A	3425	LYS	2.9
1	B	3927	TYR	2.9
1	A	1578	PHE	2.9
1	B	3715	TYR	2.9
1	A	33	GLU	2.9
1	B	1513	ILE	2.9
1	A	3436	PHE	2.9
1	A	1486	ILE	2.9
1	A	2582	VAL	2.9
1	B	1486	ILE	2.9
1	A	2130	PHE	2.9
1	B	2942	ASP	2.9
1	B	185	ILE	2.9
1	B	1590	LEU	2.9
1	B	1449	GLN	2.9
1	A	2359	ILE	2.8
1	B	1441	ILE	2.8
1	B	3577	MET	2.8
1	B	1460	GLY	2.8
1	A	2361	ILE	2.8
1	B	1452	TRP	2.8
1	B	2022	PHE	2.8
1	B	188	ILE	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	A	3554	GLU	2.8
1	A	3484	HIS	2.8
1	A	2249	LEU	2.8
1	A	3868	HIS	2.8
1	A	2091	MET	2.8
1	B	1937	MET	2.8
1	A	3020	GLY	2.8
1	A	3309	THR	2.8
1	A	3594	ALA	2.8
1	A	1519	ILE	2.8
1	B	3564	LYS	2.8
1	A	1760	PHE	2.7
1	A	2938	MET	2.7
1	A	2943	PHE	2.7
1	A	4033	LEU	2.7
1	A	4036	GLN	2.7
1	B	3744	LEU	2.7
1	A	1526	PHE	2.7
1	A	3026	GLU	2.7
1	B	3581	ASP	2.7
1	B	3934	TRP	2.7
1	A	2689	ILE	2.7
1	A	1505	PHE	2.7
1	A	3313	PHE	2.7
1	A	92	SER	2.7
1	B	60	GLY	2.7
1	B	3025	ASN	2.7
1	B	3747	LEU	2.7
1	A	3446	PHE	2.7
1	B	1719	SER	2.7
1	A	1562	MET	2.7
1	B	3017	VAL	2.7
1	B	3853	THR	2.7
1	A	2190	PHE	2.6
1	B	75	ALA	2.6
1	B	1596	ILE	2.6
1	B	1683	LEU	2.6
1	B	144	GLY	2.6
1	A	94	LEU	2.6
1	A	1497	ILE	2.6
1	A	1456	TYR	2.6
1	A	76	ASP	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	B	1476	PHE	2.6
1	B	1905	ARG	2.6
1	A	3025	ASN	2.6
1	A	3567	LEU	2.6
1	B	191	TYR	2.6
1	A	2739	VAL	2.6
1	B	1952	PHE	2.6
1	A	2838	ALA	2.6
1	B	2024	SER	2.6
1	B	3582	GLU	2.6
1	B	3576	ASN	2.6
1	A	3873	MET	2.5
1	B	3867	GLU	2.5
1	A	2853	LEU	2.5
1	A	1476	PHE	2.5
1	B	1505	PHE	2.5
1	B	3618	TYR	2.5
1	A	1469	LEU	2.5
1	A	2581	LEU	2.5
1	A	146	HIS	2.5
1	A	3865	ALA	2.5
1	B	3026	GLU	2.5
1	B	3726	LEU	2.5
1	B	1480	THR	2.5
1	B	1415	MET	2.5
1	A	2121	ALA	2.5
1	B	3019	VAL	2.5
1	B	3686	PHE	2.5
1	A	36	GLU	2.5
1	A	3847	SER	2.5
1	B	3904	LEU	2.5
1	A	3305	ARG	2.5
1	A	4035	GLN	2.5
1	A	11	GLY	2.5
1	B	1864	ASN	2.5
1	A	96	GLY	2.5
1	A	1898	LEU	2.5
1	A	2607	TYR	2.5
1	A	2682	PRO	2.5
1	A	3014	GLN	2.5
1	A	1590	LEU	2.4
1	A	2681	LEU	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	B	3587	LEU	2.4
1	B	156	ASP	2.4
1	B	1672	TYR	2.4
1	B	1760	PHE	2.4
1	A	1506	ASP	2.4
1	A	1559	SER	2.4
1	A	2656	PHE	2.4
1	A	200	TRP	2.4
1	A	1669	PHE	2.4
1	A	1705	TYR	2.4
1	A	1423	ILE	2.4
1	A	62	VAL	2.4
1	B	1850	PHE	2.4
1	B	3557	LEU	2.4
1	A	2844	PHE	2.4
1	A	2024	SER	2.4
1	A	3415	ILE	2.4
1	B	175	LEU	2.4
1	A	1494	ASP	2.4
1	A	3028	VAL	2.4
1	B	197	TYR	2.4
1	A	10	LYS	2.4
1	A	1640	VAL	2.4
1	B	3565	ARG	2.4
1	A	3326	ILE	2.4
1	B	1572	ILE	2.4
1	A	2129	LEU	2.4
1	B	2014	PHE	2.4
1	A	3357	ALA	2.4
1	B	3555	TYR	2.4
1	A	2038	LEU	2.4
1	A	3875	MET	2.3
1	A	3007	TYR	2.3
1	A	2782	VAL	2.3
1	A	2876	TRP	2.3
1	B	2943	PHE	2.3
1	A	1426	GLN	2.3
1	A	2385	VAL	2.3
1	A	22	TYR	2.3
1	B	1423	ILE	2.3
1	A	2444	ASN	2.3
1	B	4092	MET	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	A	71	ILE	2.3
1	B	1953	LEU	2.3
1	B	1589	VAL	2.3
1	B	2302	PHE	2.3
1	A	3593	GLU	2.3
1	B	3562	LEU	2.3
1	B	3839	ILE	2.3
1	A	93	MET	2.3
1	A	3559	LEU	2.3
1	A	2367	SER	2.3
1	A	3021	LEU	2.3
1	B	47	LEU	2.3
1	B	1664	LEU	2.3
1	A	73	TYR	2.3
1	A	2912	CYS	2.3
1	B	1666	THR	2.3
1	B	2122	THR	2.3
1	A	2366	LEU	2.3
1	A	2022	PHE	2.3
1	A	2977	TYR	2.3
1	B	3768	PHE	2.3
1	A	2856	LEU	2.2
1	B	2962	ARG	2.2
1	A	3542	GLN	2.2
1	A	2470	GLY	2.2
1	A	2314	ILE	2.2
1	A	3563	GLU	2.2
1	B	1942	SER	2.2
1	B	3415	ILE	2.2
1	B	3948	HIS	2.2
1	A	2150	ILE	2.2
1	A	2940	PHE	2.2
1	A	61	ASP	2.2
1	A	2874	TYR	2.2
1	B	3589	ASN	2.2
1	B	3847	SER	2.2
1	B	3725	VAL	2.2
1	A	2784	PRO	2.2
1	B	2990	GLY	2.2
1	A	3590	LEU	2.2
1	B	2795	PHE	2.2
1	A	2686	LEU	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	B	1668	GLN	2.2
1	A	2962	ARG	2.2
1	A	1588	GLU	2.2
1	A	1762	TYR	2.2
1	B	3841	LEU	2.2
1	B	2021	ILE	2.2
1	A	1474	SER	2.2
1	B	1605	GLN	2.2
1	A	3899	ASP	2.2
1	A	43	LYS	2.2
1	A	1540	LEU	2.2
1	A	2310	LEU	2.2
1	B	2006	LEU	2.2
1	B	2190	PHE	2.2
1	B	1500	ILE	2.2
1	A	3884	LEU	2.1
1	B	1546	LEU	2.1
1	A	3869	GLU	2.1
1	B	3923	VAL	2.1
1	A	149	HIS	2.1
1	A	1509	LEU	2.1
1	A	1935	GLN	2.1
1	A	2603	CYS	2.1
1	A	3994	TYR	2.1
1	A	1603	GLN	2.1
1	B	4045	LEU	2.1
1	A	1537	PHE	2.1
1	A	1428	CYS	2.1
1	B	1603	GLN	2.1
1	A	2999	LEU	2.1
1	B	3390	PHE	2.1
1	A	4019	ASP	2.1
1	A	2106	THR	2.1
1	A	2252	LEU	2.1
1	A	3426	THR	2.1
1	A	3557	LEU	2.1
1	B	1420	TYR	2.1
1	A	3480	GLU	2.1
1	B	3027	SER	2.1
1	B	2295	ILE	2.1
1	B	3958	ASP	2.1
1	A	2673	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
1	B	3895	PHE	2.1
1	B	1386	ILE	2.1
1	A	2292	VAL	2.1
1	A	2170	LEU	2.1
1	A	2474	LEU	2.1
1	A	2237	LEU	2.1
1	B	1828	TYR	2.0
1	A	2304	ASN	2.0
1	B	2989	PRO	2.0
1	A	1566	PHE	2.0
1	A	2257	PHE	2.0
1	B	3657	PHE	2.0
1	A	1612	ASP	2.0
1	A	1412	LEU	2.0
1	A	2592	PHE	2.0
1	A	2599	LEU	2.0
1	A	1850	PHE	2.0
1	A	1481	SER	2.0
1	B	3816	LEU	2.0
1	A	3786	PHE	2.0
1	A	3325	ILE	2.0
1	B	1412	LEU	2.0
1	A	1645	PHE	2.0
1	B	3406	PHE	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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( $\text{\AA}^2$ )	Q<0.9
5	MG	A	5404	1/1	0.77	0.17	97,97,97,97	0
3	ADP	B	5402	27/27	0.87	0.33	108,145,183,194	0
3	ADP	A	5401	27/27	0.89	0.28	126,146,191,198	0
5	MG	B	5404	1/1	0.90	0.30	107,107,107,107	0
2	ATP	B	5400	31/31	0.91	0.27	124,160,195,221	0
4	SO4	B	5403	5/5	0.91	0.16	139,143,171,171	0
4	SO4	A	5403	5/5	0.92	0.23	101,136,142,145	0
3	ADP	A	5402	27/27	0.93	0.25	134,176,208,218	0
2	ATP	A	5400	31/31	0.94	0.31	122,147,224,246	0
3	ADP	B	5401	27/27	0.94	0.27	98,121,138,153	0

## 6.5 Other polymers [\(i\)](#)

There are no such residues in this entry.