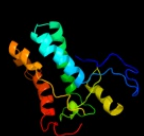
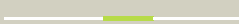
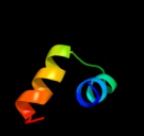
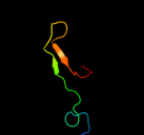
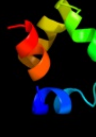
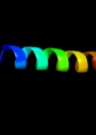
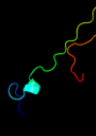
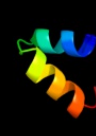


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	Q46797
Date	Thu Jan 5 12:34:17 GMT 2012
Unique Job ID	60aa7022c813e645

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1ulva1	 Alignment		97.3	25	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Bacterial glucoamylase C-terminal domain-like
2	d1lf6a1	 Alignment		97.3	19	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Bacterial glucoamylase C-terminal domain-like
3	d2fbaa1	 Alignment		95.4	16	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glucoamylase
4	c1lf6A_	 Alignment		94.9	22	PDB header: hydrolase Chain: A: PDB Molecule: glucoamylase; PDBTitle: crystal structure of bacterial glucoamylase
5	d1gaia_	 Alignment		94.1	19	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glucoamylase
6	c2vn4A_	 Alignment		93.4	18	PDB header: hydrolase Chain: A: PDB Molecule: glucoamylase; PDBTitle: glycoside hydrolase family 15 glucoamylase from hypocrea2 jecorina
7	c1ug9A_	 Alignment		62.8	36	PDB header: hydrolase Chain: A: PDB Molecule: glucodextranase; PDBTitle: crystal structure of glucodextranase from arthrobacter globiformis i42
8	c2jnhA_	 Alignment		37.3	23	PDB header: ligase Chain: A: PDB Molecule: e3 ubiquitin-protein ligase cbl-b; PDBTitle: solution structure of the uba domain from cbl-b
9	c2ov2O_	 Alignment		36.5	34	PDB header: protein binding/transferase Chain: O: PDB Molecule: serine/threonine-protein kinase pak 4; PDBTitle: the crystal structure of the human rac3 in complex with the crib2 domain of human p21-activated kinase 4 (pak4)
10	c2ae3A_	 Alignment		33.5	11	PDB header: hydrolase Chain: A: PDB Molecule: glutaryl 7-aminocephalosporanic acid acylase; PDBTitle: glutaryl 7-aminocephalosporanic acid acylase: mutational study of2 activation mechanism
11	c2odbB_	 Alignment		32.0	34	PDB header: protein binding Chain: B: PDB Molecule: serine/threonine-protein kinase pak 6; PDBTitle: the crystal structure of human cdc42 in complex with the crib domain2 of human p21-activated kinase 6 (pak6)

12	c2lioA_	Alignment		31.8	38	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: uncharacterized protein; PDBTitle: solution nmr structure of bfr322 from bacteroides fragilis, northeast2 structural genomics consortium target bfr322
13	d2ixna1	Alignment		29.4	13	Fold: PTPA-like Superfamily: PTPA-like Family: PTPA-like
14	d2g7oa1	Alignment		29.3	36	Fold: TraM-like Superfamily: TraM-like Family: TraM-like
15	d2pp6a1	Alignment		28.8	71	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: gpFII-like
16	c1e0aB_	Alignment		28.5	31	PDB header: signalling protein Chain: B; PDB Molecule: serine/threonine-protein kinase pak-alpha; PDBTitle: cdc42 complexed with the gtpase binding domain of p212 activated kinase
17	c2do6A_	Alignment		25.8	23	PDB header: ligase Chain: A; PDB Molecule: e3 ubiquitin-protein ligase cbl-b; PDBTitle: solution structure of rsgi ruh-065, a uba domain from human2 cdna
18	c2d9sA_	Alignment		25.4	23	PDB header: ligase Chain: A; PDB Molecule: cbl e3 ubiquitin protein ligase; PDBTitle: solution structure of rsgi ruh-049, a uba domain from mouse2 cdna
19	d2d5xb1	Alignment		25.3	14	Fold: Globin-like Superfamily: Globin-like Family: Globins
20	d1qj6a_	Alignment		24.0	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
21	d1wmub_	Alignment	not modelled	23.0	17	Fold: Globin-like Superfamily: Globin-like Family: Globins
22	c3k3wA_	Alignment	not modelled	22.5	16	PDB header: hydrolase Chain: A; PDB Molecule: penicillin g acylase; PDBTitle: thermostable penicillin g acylase from alcaligence faecalis2 in orthorhombic form
23	d1fhjb_	Alignment	not modelled	22.3	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
24	d1cg5b_	Alignment	not modelled	22.2	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
25	d1qpwb_	Alignment	not modelled	21.9	19	Fold: Globin-like Superfamily: Globin-like Family: Globins
26	c2z07A_	Alignment	not modelled	21.8	32	PDB header: hydrolase Chain: A; PDB Molecule: putative uncharacterized protein ttha0978; PDBTitle: crystal structure of uncharacterized conserved protein from2 thermus thermophilus hb8
27	c3bomC_	Alignment	not modelled	20.2	13	PDB header: oxygen storage/transport Chain: C; PDB Molecule: hemoglobin subunit alpha-4; PDBTitle: crystal structure of trout hemoglobin at 1.35 angstrom2 resolution
28	d2dn3b1	Alignment	not modelled	20.2	16	Fold: Globin-like Superfamily: Globin-like Family: Globins

29	d1a4fb_	Alignment	not modelled	19.3	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
30	c1ceeB_	Alignment	not modelled	18.7	13	PDB header: structural protein regulation Chain: B: PDB Molecule: wiskott-aldrich syndrome protein wasp; PDBTitle: solution structure of cdc42 in complex with the gtpase2 binding domain of wasp
31	c2cqtA_	Alignment	not modelled	18.3	15	PDB header: transferase Chain: A: PDB Molecule: cellobiose phosphorylase; PDBTitle: crystal structure of cellvibrio gilvus cellobiose phosphorylase2 crystallized from sodium/potassium phosphate
32	d2eppa1	Alignment	not modelled	18.0	67	Fold: beta-beta-alpha zinc fingers Superfamily: beta-beta-alpha zinc fingers Family: Classic zinc finger, C2H2
33	d1shrb_	Alignment	not modelled	17.1	18	Fold: Globin-like Superfamily: Globin-like Family: Globins
34	d3bj1b1	Alignment	not modelled	16.6	15	Fold: Globin-like Superfamily: Globin-like Family: Globins
35	c2zs1D_	Alignment	not modelled	16.4	14	PDB header: oxygen storage, oxygen transport Chain: D: PDB Molecule: extracellular giant hemoglobin major globin subunit b1; PDBTitle: structural basis for the heterotropic and homotropic interactions of2 invertebrate giant hemoglobin
36	d2ixma1	Alignment	not modelled	16.3	14	Fold: PTPA-like Superfamily: PTPA-like Family: PTPA-like
37	c1oqzB_	Alignment	not modelled	15.7	11	PDB header: hydrolase Chain: B: PDB Molecule: glutaryl acylase; PDBTitle: crystal structures of glutaryl 7-aminocephalosporanic acid acylase:2 insight into autoproteolytic activation
38	d2aa1b1	Alignment	not modelled	15.5	10	Fold: Globin-like Superfamily: Globin-like Family: Globins
39	c1cp9A_	Alignment	not modelled	15.3	11	PDB header: hydrolase Chain: A: PDB Molecule: penicillin amidohydrolase; PDBTitle: crystal structure of penicillin g acylase from the bro12 mutant strain of providencia rettgeri
40	c1k3rA_	Alignment	not modelled	15.2	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved protein mt0001; PDBTitle: crystal structure of the methyltransferase with a knot from2 methanobacterium thermoautotrophicum
41	d2qssb1	Alignment	not modelled	14.9	15	Fold: Globin-like Superfamily: Globin-like Family: Globins
42	d1u9da_	Alignment	not modelled	14.6	33	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: VC0714-like
43	d1fqva1	Alignment	not modelled	14.5	88	Fold: F-box domain Superfamily: F-box domain Family: F-box domain
44	c3s1jC_	Alignment	not modelled	14.5	13	PDB header: oxygen transport, oxygen storage Chain: C: PDB Molecule: hemoglobin-like flavoprotein; PDBTitle: crystal structure of acetate-bound hell's gate globin i
45	c2g62A_	Alignment	not modelled	13.8	14	PDB header: hydrolase activator Chain: A: PDB Molecule: protein phosphatase 2a, regulatory subunit b' (pr 53); PDBTitle: crystal structure of human ptpa
46	d1hbga_	Alignment	not modelled	13.5	14	Fold: Globin-like Superfamily: Globin-like Family: Globins
47	c2v5jB_	Alignment	not modelled	13.2	14	PDB header: lyase Chain: B: PDB Molecule: 2,4-dihydroxyhept-2-ene-1,7-dioic acid aldolase; PDBTitle: apo class ii aldolase hpch
48	d1h5wa_	Alignment	not modelled	13.2	21	Fold: Upper collar protein gp10 (connector protein) Superfamily: Upper collar protein gp10 (connector protein) Family: Upper collar protein gp10 (connector protein)
49	d1dxea_	Alignment	not modelled	12.8	14	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: HpcH/Hpal aldolase
50	d1i3da_	Alignment	not modelled	12.8	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
51	d3dtoa1	Alignment	not modelled	12.3	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
52	c1yhuX_	Alignment	not modelled	12.3	12	PDB header: oxygen storage/transport Chain: X: PDB Molecule: hemoglobin b2 chain; PDBTitle: crystal structure of riftia pachyptila c1 hemoglobin reveals novel2 assembly of 24 subunits.
53	c1f3mB_	Alignment	not modelled	12.2	29	PDB header: transferase Chain: B: PDB Molecule: serine/threonine-protein kinase pak-alpha; PDBTitle: crystal structure of human serine/threonine kinase pak1
54	d1hdsa_	Alignment	not modelled	12.1	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
55	c3eu8D_	Alignment	not modelled	12.1	17	PDB header: hydrolase Chain: D: PDB Molecule: putative glucoamylase; PDBTitle: crystal structure of putative glucoamylase (yp_210071.1)

					from2 bacteroides fragilis nctc 9343 at 2.12 a resolution
56	d2ixoa1	Alignment	not modelled	11.9	9 Fold: PTPA-like Superfamily: PTPA-like Family: PTPA-like
57	c2wybA	Alignment	not modelled	11.9	16 PDB header: hydrolase Chain: A: PDB Molecule: acyl-homoserine lactone acylase pvdq subunit PDBTitle: the quorum quenching n-acyl homoserine lactone acylase pvdq2 with a covalently bound dodecanoic acid
58	d1gph11	Alignment	not modelled	11.7	25 Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
59	c2gl7C	Alignment	not modelled	11.3	33 PDB header: transcription Chain: C: PDB Molecule: b-cell lymphoma 9 protein; PDBTitle: crystal structure of a beta-catenin/bcl9/tcf4 complex
60	d1hdsb	Alignment	not modelled	11.2	11 Fold: Globin-like Superfamily: Globin-like Family: Globins
61	c1cfgA	Alignment	not modelled	11.0	67 PDB header: coagulation factor Chain: A: PDB Molecule: coagulation factor viii; PDBTitle: membrane-binding peptide from the c2 domain of factor viii2 forms an amphipathic structure as determined by nmr3 spectroscopy
62	d2d5xa1	Alignment	not modelled	10.9	14 Fold: Globin-like Superfamily: Globin-like Family: Globins
63	d1spgb	Alignment	not modelled	10.8	15 Fold: Globin-like Superfamily: Globin-like Family: Globins
64	c2e67D	Alignment	not modelled	10.3	21 PDB header: structural genomics, unknown function Chain: D: PDB Molecule: hypothetical protein tthb029; PDBTitle: crystal structure of the hypothetical protein tthb029 from thermus2 thermophilus hb8
65	d1jl6a	Alignment	not modelled	10.1	13 Fold: Globin-like Superfamily: Globin-like Family: Globins
66	d2bt6a1	Alignment	not modelled	10.1	23 Fold: beta-Grasp (ubiquitin-like) Superfamily: 2Fe-2S ferredoxin-like Family: 2Fe-2S ferredoxin-related
67	c1ajna	Alignment	not modelled	9.8	13 PDB header: antibiotic resistance Chain: A: PDB Molecule: penicillin amidohydrolase; PDBTitle: penicillin acylase complexed with p-nitrophenylacetic acid
68	c1gph1	Alignment	not modelled	9.6	25 PDB header: transferase(glutamine amidotransferase) Chain: 1: PDB Molecule: glutamine phosphoribosyl-pyrophosphate amidotransferase; PDBTitle: structure of the allosteric regulatory enzyme of purine biosynthesis
69	d1izca	Alignment	not modelled	9.6	27 Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: Hpch/Hpai aldolase
70	c1izcA	Alignment	not modelled	9.6	27 PDB header: lyase Chain: A: PDB Molecule: macrophomate synthase intermolecular diels-alderase; PDBTitle: crystal structure analysis of macrophomate synthase
71	d1ecfa1	Alignment	not modelled	9.4	21 Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
72	d1a4fa	Alignment	not modelled	9.4	16 Fold: Globin-like Superfamily: Globin-like Family: Globins
73	d2dlqa3	Alignment	not modelled	9.4	50 Fold: beta-beta-alpha zinc fingers Superfamily: beta-beta-alpha zinc fingers Family: Classic zinc finger, C2H2
74	c3on0D	Alignment	not modelled	9.3	25 PDB header: dna binding protein/dna Chain: D: PDB Molecule: protein tram; PDBTitle: crystal structure of the ped208 tram-sbma complex
75	c3qz6A	Alignment	not modelled	9.3	24 PDB header: lyase Chain: A: PDB Molecule: hpch/hpai aldolase; PDBTitle: the crystal structure of hpch/hpai aldolase from desulfitobacterium2 hafniense dcb-2
76	d1qpwa	Alignment	not modelled	9.2	14 Fold: Globin-like Superfamily: Globin-like Family: Globins
77	d1spga	Alignment	not modelled	9.2	10 Fold: Globin-like Superfamily: Globin-like Family: Globins
78	c2pohA	Alignment	not modelled	9.1	27 PDB header: viral protein Chain: A: PDB Molecule: head completion protein; PDBTitle: structure of phage p22 tail needle gp26
79	c2i7gA	Alignment	not modelled	8.7	22 PDB header: oxidoreductase Chain: A: PDB Molecule: monooxygenase; PDBTitle: crystal structure of monooxygenase from agrobacterium tumefaciens
80	d1b0ba	Alignment	not modelled	8.6	13 Fold: Globin-like Superfamily: Globin-like Family: Globins
81	d2bl8a1	Alignment	not modelled	8.6	21 Fold: Bromodomain-like Superfamily: Bacteriocin immunity protein-like Family: EntA-Irn

82	d1seda_	Alignment	not modelled	8.6	26	Fold: Hypothetical protein Yhal Superfamily: Hypothetical protein Yhal Family: Hypothetical protein Yhal
83	c3pt8B_	Alignment	not modelled	8.6	7	PDB header: oxygen transport Chain: B: PDB Molecule: hemoglobin iii; PDBTitle: structure of hbii-iii-cn from lucina pectinata at ph 5.0
84	d1k3ra2	Alignment	not modelled	8.5	20	Fold: alpha/beta knot Superfamily: alpha/beta knot Family: Hypothetical protein MTH1 (MT0001), dimerisation domain
85	c1ijgE_	Alignment	not modelled	8.4	18	PDB header: viral protein Chain: E: PDB Molecule: upper collar protein; PDBTitle: structure of the bacteriophage phi29 head-tail connector2 protein
86	c3bq4G_	Alignment	not modelled	8.4	18	PDB header: viral protein Chain: G: PDB Molecule: fiber; PDBTitle: crystal structure of ad35 fiber knob
87	c2vwtA_	Alignment	not modelled	8.3	24	PDB header: lyase Chain: A: PDB Molecule: yfau, 2-keto-3-deoxy sugar aldolase; PDBTitle: crystal structure of yfau, a metal ion dependent class ii2 aldolase from escherichia coli k12 - mg-pyruvate product3 complex
88	c2d2mC_	Alignment	not modelled	7.9	17	PDB header: oxygen storage/transport Chain: C: PDB Molecule: giant hemoglobin, b2(c) globin chain; PDBTitle: structure of an extracellular giant hemoglobin of the2 gutless beard worm oligobranchia mashikoi
89	d5pnta_	Alignment	not modelled	7.8	6	Fold: Phosphotyrosine protein phosphatases I-like Superfamily: Phosphotyrosine protein phosphatases I Family: Low-molecular-weight phosphotyrosine protein phosphatases
90	d1luca_	Alignment	not modelled	7.7	33	Fold: TIM beta/alpha-barrel Superfamily: Bacterial luciferase-like Family: Bacterial luciferase (alkanal monooxygenase)
91	d2h8fb1	Alignment	not modelled	7.7	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
92	c2cwdA_	Alignment	not modelled	7.6	18	PDB header: hydrolase Chain: A: PDB Molecule: low molecular weight phosphotyrosine protein phosphatase; PDBTitle: crystal structure of tt1001 protein from thermus thermophilus hb8
93	c2dafA_	Alignment	not modelled	7.6	67	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: flj35834 protein; PDBTitle: solution structure of the novel identified ubiquitin-like2 domain in the human hypothetical protein flj35834
94	c3h87D_	Alignment	not modelled	7.5	24	PDB header: toxin/antitoxin Chain: D: PDB Molecule: putative uncharacterized protein; PDBTitle: rv0301 rv0300 toxin antitoxin complex from mycobacterium tuberculosis
95	d1v4wb_	Alignment	not modelled	7.4	11	Fold: Globin-like Superfamily: Globin-like Family: Globins
96	c3if4C_	Alignment	not modelled	7.4	33	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: integron cassette protein hfx_cass5; PDBTitle: structure from the mobile metagenome of north west arm2 sewage outfall: integron cassette protein hfx_cass5
97	c2b81D_	Alignment	not modelled	7.2	40	PDB header: oxidoreductase Chain: D: PDB Molecule: luciferase-like monooxygenase; PDBTitle: crystal structure of the luciferase-like monooxygenase from bacillus2 cereus
98	d3d1ka1	Alignment	not modelled	7.2	20	Fold: Globin-like Superfamily: Globin-like Family: Globins
99	c3huiA_	Alignment	not modelled	7.1	26	PDB header: electron transport Chain: A: PDB Molecule: ferredoxin; PDBTitle: crystal structure of the mutant a105r of [2fe-2s] ferredoxin2 in the class i cyp199a2 system from rhodospseudomonas3 palustris