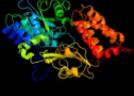
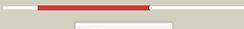
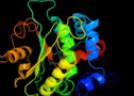
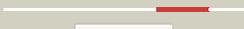
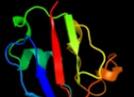
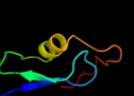
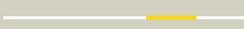
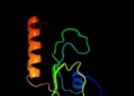
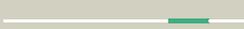
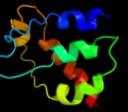


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P31979
Date	Thu Jan 5 11:48:55 GMT 2012
Unique Job ID	6055bc112678ce3b

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2fugA_	 Alignment		100.0	46	PDB header: oxidoreductase Chain: A; PDB Molecule: nadh-quinone oxidoreductase chain 1; PDBTitle: crystal structure of the hydrophilic domain of respiratory complex i2 from thermus thermophilus
2	d2fug12	 Alignment		100.0	54	Fold: Nqo1 FMN-binding domain-like Superfamily: Nqo1 FMN-binding domain-like Family: Nqo1 FMN-binding domain-like
3	d2fug11	 Alignment		100.0	32	Fold: Bromodomain-like Superfamily: Nqo1C-terminal domain-like Family: Nqo1C-terminal domain-like
4	d2fug13	 Alignment		99.9	43	Fold: beta-Grasp (ubiquitin-like) Superfamily: Nqo1 middle domain-like Family: Nqo1 middle domain-like
5	c2w8iG_	 Alignment		93.2	18	PDB header: membrane protein Chain: G; PDB Molecule: putative outer membrane lipoprotein wza; PDBTitle: crystal structure of wza24-345.
6	c2j58G_	 Alignment		91.9	18	PDB header: membrane protein Chain: G; PDB Molecule: outer membrane lipoprotein wza; PDBTitle: the structure of wza
7	c1c4cA_	 Alignment		78.1	11	PDB header: oxidoreductase Chain: A; PDB Molecule: protein (fe-only hydrogenase); PDBTitle: binding of exogenously added carbon monoxide at the active site of the fe-only hydrogenase (cpi) from clostridium3 pasteurianum
8	c3p42D_	 Alignment		65.8	13	PDB header: unknown function Chain: D; PDB Molecule: predicted protein; PDBTitle: structure of gfcc (ymcb), protein encoded by the e. coli group 42 capsule operon
9	d2bs2b1	 Alignment		46.1	20	Fold: Globin-like Superfamily: alpha-helical ferredoxin Family: Fumarate reductase/Succinate dehydrogenase iron-sulfur protein, C-terminal domain
10	c3swrA_	 Alignment		44.3	36	PDB header: transferase Chain: A; PDB Molecule: dna (cytosine-5)-methyltransferase 1; PDBTitle: structure of human dnmt1 (601-1600) in complex with sinefungin
11	c2b76N_	 Alignment		43.9	16	PDB header: oxidoreductase Chain: N; PDB Molecule: fumarate reductase iron-sulfur protein; PDBTitle: e. coli quinol fumarate reductase frda e49q mutation

12	c2bs2E_	Alignment		42.1	20	PDB header: oxidoreductase Chain: E: PDB Molecule: quinol-fumarate reductase iron-sulfur subunit b; PDBTitle: quinol:fumarate reductase from wolinella succinogenes
13	d1kf6b1	Alignment		41.3	17	Fold: Globin-like Superfamily: alpha-helical ferredoxin Family: Fumarate reductase/Succinate dehydrogenase iron-sulfur protein, C-terminal domain
14	c3bqgB_	Alignment		37.7	7	PDB header: lipid binding protein Chain: B: PDB Molecule: proactivator polypeptide; PDBTitle: crystal structure of human saposin d (triclinic)
15	c1ffuA_	Alignment		36.7	17	PDB header: hydrolase Chain: A: PDB Molecule: cuts, iron-sulfur protein of carbon monoxide PDBTitle: carbon monoxide dehydrogenase from hydrogenophaga2 pseudoflava which lacks the mo-pyranopterin moiety of the3 molybdenum cofactor
16	c2h89B_	Alignment		36.0	18	PDB header: oxidoreductase Chain: B: PDB Molecule: succinate dehydrogenase ip subunit; PDBTitle: avian respiratory complex ii with malonate bound
17	c3bl5E_	Alignment		35.9	19	PDB header: hydrolase Chain: E: PDB Molecule: queuosine biosynthesis protein quec; PDBTitle: crystal structure of quec from bacillus subtilis: an enzyme2 involved in preq1 biosynthesis
18	d1nkla_	Alignment		35.3	12	Fold: Saposin-like Superfamily: Saposin Family: NKL-like
19	c3pt6B_	Alignment		32.4	36	PDB header: transferase/dna Chain: B: PDB Molecule: dna (cytosine-5)-methyltransferase 1; PDBTitle: crystal structure of mouse dnmt1(650-1602) in complex with dna
20	d1zxia1	Alignment		28.2	21	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
21	d1of9a_	Alignment	not modelled	28.2	13	Fold: Saposin-like Superfamily: Saposin Family: Ameobapore A
22	c3thdD_	Alignment	not modelled	25.2	26	PDB header: hydrolase Chain: D: PDB Molecule: beta-galactosidase; PDBTitle: crystal structure of human beta-galactosidase in complex with 1-2 deoxygalactonojirimycin
23	d1n62a1	Alignment	not modelled	24.3	20	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
24	c3cf4A_	Alignment	not modelled	23.2	23	PDB header: oxidoreductase Chain: A: PDB Molecule: acetyl-coa decarboxylase/synthase alpha subunit; PDBTitle: structure of the codh component of the m. barkeri acds complex
25	c1dgiA_	Alignment	not modelled	22.6	14	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde oxidoreductase; PDBTitle: crystal structure of the aldehyde oxidoreductase from2 desulfovibrio desulfuricans atcc 27774
26	c3d3aA_	Alignment	not modelled	22.3	26	PDB header: hydrolase Chain: A: PDB Molecule: beta-galactosidase; PDBTitle: crystal structure of a beta-galactosidase from bacteroides2 thetaiotaomicron
27	c1w59B_	Alignment	not modelled	21.7	27	PDB header: cell division Chain: B: PDB Molecule: cell division protein ftsz homolog 1; PDBTitle: ftsz dimer, empty (m. jannaschii)
28	c3b9jI_	Alignment	not modelled	21.6	22	PDB header: oxidoreductase Chain: I: PDB Molecule: xanthine oxidase; PDBTitle: structure of xanthine oxidase with 2-hydroxy-6-methylpurine

29	d2gtga1	Alignment	not modelled	20.0	12	Fold: Saposin-like Superfamily: Saposin Family: NKL-like
30	d1nekb1	Alignment	not modelled	19.9	14	Fold: Globin-like Superfamily: alpha-helical ferredoxin Family: Fumarate reductase/Succinate dehydrogenase iron-sulfur protein, C-terminal domain
31	d1t3qa1	Alignment	not modelled	18.7	21	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
32	d1v97a1	Alignment	not modelled	18.4	22	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
33	c2he3A	Alignment	not modelled	18.0	9	PDB header: oxidoreductase Chain: A: PDB Molecule: glutathione peroxidase 2; PDBTitle: crystal structure of the selenocysteine to cysteine mutant of human2 glutathione peroxidase 2 (gpX2)
34	d1o8xa	Alignment	not modelled	18.0	22	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
35	d1z6na1	Alignment	not modelled	17.9	28	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Thioltransferase
36	c1n60D	Alignment	not modelled	17.7	20	PDB header: oxidoreductase Chain: D: PDB Molecule: carbon monoxide dehydrogenase small chain; PDBTitle: crystal structure of the cu,mo-co dehydrogenase (codh); cyanide-2 inactivated form
37	c3eubj	Alignment	not modelled	16.8	22	PDB header: oxidoreductase Chain: J: PDB Molecule: xanthine dehydrogenase/oxidase; PDBTitle: crystal structure of desulfo-xanthine oxidase with xanthine
38	d1ujsa	Alignment	not modelled	16.1	26	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
39	d2pg3a1	Alignment	not modelled	16.1	44	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
40	d1deca	Alignment	not modelled	16.1	36	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Leech antihemostatic proteins Family: Hirudin-like
41	c1nekB	Alignment	not modelled	15.9	18	PDB header: oxidoreductase/electron transport Chain: B: PDB Molecule: succinate dehydrogenase iron-sulfur protein; PDBTitle: complex ii (succinate dehydrogenase) from e. coli with2 ubiquinone bound
42	d1l9la	Alignment	not modelled	15.6	6	Fold: Saposin-like Superfamily: Saposin Family: NKL-like
43	c1rm6F	Alignment	not modelled	15.5	20	PDB header: oxidoreductase Chain: F: PDB Molecule: 4-hydroxybenzoyl-coa reductase gamma subunit; PDBTitle: structure of 4-hydroxybenzoyl-coa reductase from thauera2 aromatica
44	d1uufa1	Alignment	not modelled	15.1	55	Fold: GroES-like Superfamily: GroES-like Family: Alcohol dehydrogenase-like, N-terminal domain
45	d1i5ga	Alignment	not modelled	15.0	25	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
46	d1jqoa	Alignment	not modelled	14.8	35	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: Phosphoenolpyruvate carboxylase
47	c1jqoA	Alignment	not modelled	14.8	35	PDB header: lyase Chain: A: PDB Molecule: phosphoenolpyruvate carboxylase; PDBTitle: crystal structure of c4-form phosphoenolpyruvate carboxylase from2 maize
48	c3nsjA	Alignment	not modelled	14.6	24	PDB header: immune system Chain: A: PDB Molecule: perforin-1; PDBTitle: the x-ray crystal structure of lymphocyte perforin
49	d1rm6c1	Alignment	not modelled	14.2	18	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
50	c3o2qB	Alignment	not modelled	13.6	20	PDB header: hydrolase Chain: B: PDB Molecule: rna polymerase ii subunit a c-terminal domain phosphatase PDBTitle: crystal structure of the human symplekin-ssu72-ctd phosphopeptide2 complex
51	c3l23A	Alignment	not modelled	13.6	10	PDB header: isomerase Chain: A: PDB Molecule: sugar phosphate isomerase/epimerase; PDBTitle: crystal structure of sugar phosphate isomerase/epimerase2 (yp_001303399.1) from parabacteroides distasonis atcc 8503 at 1.70 a3 resolution
52	c2w3rG	Alignment	not modelled	13.4	15	PDB header: oxidoreductase Chain: G: PDB Molecule: xanthine dehydrogenase; PDBTitle: crystal structure of xanthine dehydrogenase (desulfo form)2 from rhodobacter capsulatus in complex with hypoxanthine
53	d1ejba	Alignment	not modelled	13.0	24	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
54	c2ds8A	Alignment	not modelled	12.9	35	PDB header: metal binding protein, protein binding Chain: A: PDB Molecule: atp-dependent clp protease atp-binding subunit

						PDBTitle: structure of the zbd-xb complex PDB header: transferase Chain: L: PDB Molecule: 6,7-dimethyl-8-ribityllumazine synthase; PDBTitle: crystal structure of lumazine synthase from salmonella typhimurium lt2
55	c3mk3L_	Alignment	not modelled	12.9	21	
56	c3qmhA_	Alignment	not modelled	12.8	64	PDB header: dna binding protein/dna Chain: A: PDB Molecule: cpg-binding protein; PDBTitle: structural basis of selective binding of non-methylated cpg islands2 (dna-tcga) by the cxxc domain of cfp1
57	d1c2ya_	Alignment	not modelled	12.7	11	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
58	c2jviA_	Alignment	not modelled	12.7	64	PDB header: transcription Chain: A: PDB Molecule: zinc finger protein hrx; PDBTitle: solution structure of mll cxxc domain
59	c3fdfA_	Alignment	not modelled	12.5	26	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: fr253; PDBTitle: crystal structure of the serine phosphatase of rna2 polymerase ii ctd (ssu72 superfamily) from drosophila3 melanogaster. orthorhombic crystal form. northeast4 structural genomics consortium target fr253.
60	c3ogrA_	Alignment	not modelled	12.1	27	PDB header: hydrolase Chain: A: PDB Molecule: beta-galactosidase; PDBTitle: complex structure of beta-galactosidase from trichoderma reesei with2 galactose
61	d1ffva1	Alignment	not modelled	11.8	17	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
62	d1cdoa1	Alignment	not modelled	11.8	36	Fold: GroES-like Superfamily: GroES-like Family: Alcohol dehydrogenase-like, N-terminal domain
63	c1t3qD_	Alignment	not modelled	11.7	21	PDB header: oxidoreductase Chain: D: PDB Molecule: quinoline 2-oxidoreductase small subunit; PDBTitle: crystal structure of quinoline 2-oxidoreductase from pseudomonas2 putida 86
64	c2l3xA_	Alignment	not modelled	11.7	21	PDB header: protein binding Chain: A: PDB Molecule: ablim2 protein; PDBTitle: villin head piece domain of human ablim2
65	d1rvv1_	Alignment	not modelled	11.7	17	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
66	c2bm0A_	Alignment	not modelled	11.1	15	PDB header: elongation factor Chain: A: PDB Molecule: elongation factor g; PDBTitle: ribosomal elongation factor g (ef-g) fusidic acid resistant2 mutant t84a
67	c2kvqA_	Alignment	not modelled	11.0	26	PDB header: transcription Chain: A: PDB Molecule: zinc finger and btb domain-containing protein 32; PDBTitle: structure of the three-cys2his2 domain of mouse testis zinc2 finger protein
68	d2fa8a1	Alignment	not modelled	11.0	20	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Selenoprotein W-related
69	c3hrdH_	Alignment	not modelled	10.7	22	PDB header: oxidoreductase Chain: H: PDB Molecule: nicotinate dehydrogenase small fes subunit; PDBTitle: crystal structure of nicotinate dehydrogenase
70	c3p04B_	Alignment	not modelled	10.6	20	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized bcr; PDBTitle: crystal structure of the bcr protein from corynebacterium glutamicum.2 northeast structural genomics consortium target cgr8
71	c2j2sA_	Alignment	not modelled	10.6	64	PDB header: transcription regulation Chain: A: PDB Molecule: zinc finger protein hrx; PDBTitle: solution structure of the nonmethyl-cpg-binding cxxc domain2 of the leukaemia-associated mll histone methyltransferase
72	d1yu5x1	Alignment	not modelled	10.3	13	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
73	c2ojlB_	Alignment	not modelled	10.2	20	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of q7waf1_borpa from bordetella parapertussis.2 northeast structural genomics target bpr68.
74	c1ovxB_	Alignment	not modelled	10.2	35	PDB header: metal binding protein Chain: B: PDB Molecule: atp-dependent clp protease atp-binding subunit clpx; PDBTitle: nmr structure of the e. coli clpx chaperone zinc binding domain dimer
75	d2ds5a1	Alignment	not modelled	10.2	35	Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: ClpX chaperone zinc binding domain
76	d1nqua_	Alignment	not modelled	10.2	15	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
77	d2vapa1	Alignment	not modelled	10.1	26	Fold: Tubulin nucleotide-binding domain-like Superfamily: Tubulin nucleotide-binding domain-like Family: Tubulin, GTPase domain
78	c3o2sB_	Alignment	not modelled	9.9	20	PDB header: hydrolase Chain: B: PDB Molecule: rna polymerase ii subunit a c-terminal domain phosphatase PDBTitle: crystal structure of the human symplekin-ssu72 complex
79	c2p0gB_	Alignment	not modelled	9.7	20	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: selenoprotein w-related protein; PDBTitle: crystal structure of selenoprotein w-related protein from2 vibrio cholerae. northeast structural genomics target vcr75

80	c1xc6A_	Alignment	not modelled	9.6	27	PDB header: hydrolase Chain: A: PDB Molecule: beta-galactosidase; PDBTitle: native structure of beta-galactosidase from penicillium sp. in complex2 with galactose
81	d1mmca_	Alignment	not modelled	9.6	0	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Plant lectins/antimicrobial peptides Family: Antimicrobial peptide 2, AC-AMP2
82	c1ogpD_	Alignment	not modelled	9.3	20	PDB header: oxidoreductase Chain: D: PDB Molecule: sulfite oxidase; PDBTitle: the crystal structure of plant sulfite oxidase provides2 insight into sulfite oxidation in plants and animals
83	d1lbu2_	Alignment	not modelled	8.9	12	Fold: Hedgehog/DD-peptidase Superfamily: Hedgehog/DD-peptidase Family: Muramoyl-pentapeptide carboxypeptidase
84	d1c41a_	Alignment	not modelled	8.8	17	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
85	d1v9wa_	Alignment	not modelled	8.8	28	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Txn15-like
86	d1o73a_	Alignment	not modelled	8.7	27	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
87	c2obkE_	Alignment	not modelled	8.5	20	PDB header: structural genomics, unknown function Chain: E: PDB Molecule: selw/selw/selw selenoprotein domain; PDBTitle: x-ray structure of the putative se binding protein from pseudomonas2 fluorescens. northeast structural genomics consortium target plr6.
88	c3p04A_	Alignment	not modelled	8.5	20	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized bcr; PDBTitle: crystal structure of the bcr protein from corynebacterium glutamicum.2 northeast structural genomics consortium target cgr8
89	d1qzpa_	Alignment	not modelled	8.5	18	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
90	c2h9gS_	Alignment	not modelled	8.4	25	PDB header: immune system/apoptosis Chain: S: PDB Molecule: tumor necrosis factor receptor superfamily member 10b PDBTitle: crystal structure of phage derived fab bdf1 with human death receptor2 5 (dr5)
91	c3fkfC_	Alignment	not modelled	8.4	13	PDB header: oxidoreductase Chain: C: PDB Molecule: thiol-disulfide oxidoreductase; PDBTitle: thiol-disulfide oxidoreductase from bacteroides fragilis nctc 9343
92	c1zr6A_	Alignment	not modelled	8.3	12	PDB header: oxidoreductase Chain: A: PDB Molecule: glucooiligosaccharide oxidase; PDBTitle: the crystal structure of an acremonium strictum glucooiligosaccharide2 oxidase reveals a novel flavinylation
93	c2obxH_	Alignment	not modelled	8.1	15	PDB header: transferase Chain: H: PDB Molecule: 6,7-dimethyl-8-ribityllumazine synthase 1; PDBTitle: lumazine synthase ribh2 from mesorhizobium loti (gene ml17281, swiss-2 prot entry q986n2) complexed with inhibitor 5-nitro-6-(d-3 ribitylamino)-2,4(1h,3h) pyrimidinedione
94	c3dexA_	Alignment	not modelled	8.1	28	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: sav_2001; PDBTitle: crystal structure of sav_2001 protein from streptomyces2 avermitilis, northeast structural genomics consortium3 target svr107.
95	c1zlgA_	Alignment	not modelled	8.0	31	PDB header: hormone/growth factor Chain: A: PDB Molecule: anosmin 1; PDBTitle: solution structure of the extracellular matrix protein2 anosmin-1
96	d2fzwa1	Alignment	not modelled	7.9	36	Fold: GroES-like Superfamily: GroES-like Family: Alcohol dehydrogenase-like, N-terminal domain
97	d1di0a_	Alignment	not modelled	7.8	17	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
98	c3l0aA_	Alignment	not modelled	7.8	50	PDB header: hydrolase Chain: A: PDB Molecule: putative exonuclease; PDBTitle: crystal structure of putative exonuclease (rer070207002219) from2 eubacterium rectale at 2.19 a resolution
99	d2f9wa1	Alignment	not modelled	7.7	23	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: CoaX-like