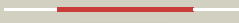
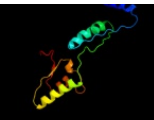
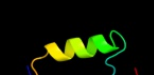
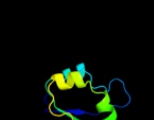


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P0AFC7
Date	Thu Jan 5 11:25:56 GMT 2012
Unique Job ID	ab3a17b74251631a

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2fug6l	 Alignment		100.0	51	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nqo6-like
2	d1frfs_	 Alignment		99.9	20	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nickel-iron hydrogenase, small subunit
3	d1e3da_	 Alignment		99.9	19	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nickel-iron hydrogenase, small subunit
4	d1wuis1	 Alignment		99.9	19	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nickel-iron hydrogenase, small subunit
5	c1h2aS_	 Alignment		99.9	20	PDB header: oxidoreductase Chain: S: PDB Molecule: hydrogenase; PDBTitle: single crystals of hydrogenase from desulfovibrio vulgaris
6	c3rgwS_	 Alignment		99.8	25	PDB header: oxidoreductase/oxidoreductase Chain: S: PDB Molecule: membrane-bound hydrogenase (nife) small subunit hoxk; PDBTitle: crystal structure at 1.5 a resolution of an h2-reduced, o2-tolerant2 hydrogenase from ralstonia eutropha unmasks a novel iron-sulfur3 cluster
7	d1yq9a1	 Alignment		99.8	17	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nickel-iron hydrogenase, small subunit
8	c3myrE_	 Alignment		99.8	21	PDB header: oxidoreductase Chain: E: PDB Molecule: hydrogenase (nife) small subunit hyda; PDBTitle: crystal structure of [nife] hydrogenase from allochromatium vinosum in2 its ni-a state
9	d1cc1s_	 Alignment		99.8	22	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nickel-iron hydrogenase, small subunit
10	c2wpaA_	 Alignment		99.8	21	PDB header: oxidoreductase Chain: A: PDB Molecule: periplasmic [nifese] hydrogenase, small subunit; PDBTitle: structure of the oxidised, as-isolated nifese hydrogenase2 from d. vulgaris hildenborough
11	c2v4jA_	 Alignment		87.7	14	PDB header: oxidoreductase Chain: A: PDB Molecule: sulfite reductase, dissimilatory-type subunit PDBTitle: the crystal structure of desulfovibrio vulgaris2 dissimilatory sulfite reductase bound to dsrC provides3 novel insights into the mechanism of sulfate respiration

12	c2z1dA_	Alignment		74.9	16	PDB header: metal binding protein Chain: A: PDB Molecule: hydrogenase expression/formation protein hypd; PDBTitle: crystal structure of [nife] hydrogenase maturation protein, hypd from2 thermococcus kodakaraensis
13	c1zj8B_	Alignment		72.7	24	PDB header: oxidoreductase Chain: B: PDB Molecule: probable ferredoxin-dependent nitrite reductase nira; PDBTitle: structure of mycobacterium tuberculosis nira protein
14	c3c7bA_	Alignment		69.2	17	PDB header: oxidoreductase Chain: A: PDB Molecule: sulfite reductase, dissimilatory-type subunit alpha; PDBTitle: structure of the dissimilatory sulfite reductase from archaeoglobus2 fulgidus
15	d2dl da2	Alignment		68.7	12	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
16	d1ygya2	Alignment		52.4	17	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
17	c2akjA_	Alignment		49.6	16	PDB header: oxidoreductase Chain: A: PDB Molecule: ferredoxin--nitrite reductase, chloroplast; PDBTitle: structure of spinach nitrite reductase
18	c3rl4A_	Alignment		48.0	8	PDB header: hydrolase Chain: A: PDB Molecule: metallophosphoesterase mpped2; PDBTitle: rat metallophosphodiesterase mpped2 g252h mutant
19	d1j4aa2	Alignment		41.4	11	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
20	c3trhl_	Alignment		36.9	18	PDB header: lyase Chain: I: PDB Molecule: phosphoribosylaminoimidazole carboxylase PDBTitle: structure of a phosphoribosylaminoimidazole carboxylase catalytic2 subunit (pure) from coxiella burnetii
21	c3ca8B_	Alignment	not modelled	35.7	23	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: protein ydcf; PDBTitle: crystal structure of escherichia coli ydcf, an s-adenosyl-l-methionine2 utilizing enzyme
22	c2d0iC_	Alignment	not modelled	35.3	20	PDB header: oxidoreductase Chain: C: PDB Molecule: dehydrogenase; PDBTitle: crystal structure ph0520 protein from pyrococcus horikoshii ot3
23	d1mx3a2	Alignment	not modelled	34.2	16	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
24	c3fhcB_	Alignment	not modelled	33.8	12	PDB header: transport protein/hydrolase Chain: B: PDB Molecule: atp-dependent rna helicase ddx19b; PDBTitle: crystal structure of human dbp5 in complex with nup214
25	c3c7bE_	Alignment	not modelled	31.8	18	PDB header: oxidoreductase Chain: E: PDB Molecule: sulfite reductase, dissimilatory-type subunit beta; PDBTitle: structure of the dissimilatory sulfite reductase from archaeoglobus2 fulgidus
26	c5aopA_	Alignment	not modelled	29.1	16	PDB header: oxidoreductase Chain: A: PDB Molecule: sulfite reductase hemoprotein; PDBTitle: sulfite reductase structure reduced with crii edta, 5-coordinate2 siroheme, siroheme feii, [4fe-4s] +1
27	c2d3yA_	Alignment	not modelled	28.9	15	PDB header: hydrolase Chain: A: PDB Molecule: uracil-dna glycosylase; PDBTitle: crystal structure of uracil-dna glycosylase from thermophilus2 hb8
28	c2v4jE_	Alignment	not modelled	28.4	14	PDB header: oxidoreductase Chain: E: PDB Molecule: sulfite reductase, dissimilatory-type subunit PDBTitle: the crystal structure of desulfovibrio vulgaris2

						dissimilatory sulfite reductase bound to dsrC provides3 novel insights into the mechanism of sulfate respiration
29	d1e5da1	Alignment	not modelled	28.0	18	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Flavodoxin-related
30	d2naca2	Alignment	not modelled	26.6	17	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
31	d1m1la_	Alignment	not modelled	23.8	29	Fold: Suppressor of Fused, N-terminal domain Superfamily: Suppressor of Fused, N-terminal domain Family: Suppressor of Fused, N-terminal domain
32	c1ychD_	Alignment	not modelled	23.8	18	PDB header: oxidoreductase Chain: D: PDB Molecule: nitric oxide reductase; PDBTitle: x-ray crystal structures of moorella thermoacetica fpr.2 novel diiron site structure and mechanistic insights into3 a scavenging nitric oxide reductase
33	c3mglA_	Alignment	not modelled	23.5	23	PDB header: transport protein Chain: A: PDB Molecule: sulfate permease family protein; PDBTitle: crystal structure of permease family protein from vibrio2 cholerae
34	d2cv4a1	Alignment	not modelled	22.3	13	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
35	d1sqsa_	Alignment	not modelled	20.7	11	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Hypothetical protein SP1951
36	c2d16B_	Alignment	not modelled	20.1	24	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: hypothetical protein ph1918; PDBTitle: crystal structure of ph1918 protein from pyrococcus horikoshii ot3
37	d2dl da1	Alignment	not modelled	19.9	12	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Formate/glycerate dehydrogenases, NAD-domain
38	c2pi1C_	Alignment	not modelled	19.6	19	PDB header: oxidoreductase Chain: C: PDB Molecule: d-lactate dehydrogenase; PDBTitle: crystal structure of d-lactate dehydrogenase from aquifex2 aeolicus complexed with nad and lactic acid
39	c2gn0A_	Alignment	not modelled	19.1	10	PDB header: lyase Chain: A: PDB Molecule: threonine dehydratase catabolic; PDBTitle: crystal structure of dimeric biodegradative threonine deaminase (tdcb)2 from salmonella typhimurium at 1.7 a resolution (triclinic form with3 one complete subunit built in alternate conformation)
40	d1fmfa_	Alignment	not modelled	17.7	16	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
41	c1m46B_	Alignment	not modelled	16.3	33	PDB header: cell cycle protein Chain: B: PDB Molecule: iq4 motif from myo2p, a class v myosin; PDBTitle: crystal structure of mlc1p bound to iq4 of myo2p, a class v2 myosin
42	c3ikbB_	Alignment	not modelled	15.8	19	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized conserved protein; PDBTitle: the structure of a conserved protein from streptococcus2 mutans ua159.
43	d1j4aa1	Alignment	not modelled	15.6	12	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Formate/glycerate dehydrogenases, NAD-domain
44	c2afvB_	Alignment	not modelled	14.5	19	PDB header: isomerase Chain: B: PDB Molecule: cobalamin biosynthesis precorrin isomerase; PDBTitle: the crystal structure of putative precorrin isomerase cbic2 in cobalamin biosynthesis
45	c2gewA_	Alignment	not modelled	14.0	25	PDB header: oxidoreductase Chain: A: PDB Molecule: cholesterol oxidase; PDBTitle: atomic resolution structure of cholesterol oxidase @ ph 9.02 (streptomyces sp. sa-coo)
46	c2r47C_	Alignment	not modelled	13.2	25	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: uncharacterized protein mth_862; PDBTitle: crystal structure of mth_862 protein of unknown function from2 methanothermobacter thermautotrophicus
47	d1xm7a_	Alignment	not modelled	12.8	12	Fold: Metallo-dependent phosphatases Superfamily: Metallo-dependent phosphatases Family: Hypothetical protein aq 1666
48	c3nm5B_	Alignment	not modelled	12.4	6	PDB header: hydrolase Chain: B: PDB Molecule: mta/sah nucleosidase; PDBTitle: helicobacter pylori mtan complexed with formycin a
49	c2nacA_	Alignment	not modelled	12.3	14	PDB header: oxidoreductase(aldehyde(d),nad+(a)) Chain: A: PDB Molecule: nad-dependent formate dehydrogenase; PDBTitle: high resolution structures of holo and apo formate dehydrogenase
50	c3rggD_	Alignment	not modelled	12.3	28	PDB header: lyase Chain: D: PDB Molecule: phosphoribosylaminoimidazole carboxylase, pure protein; PDBTitle: crystal structure of treponema denticola pure bound to air
51	c1e5dA_	Alignment	not modelled	12.2	14	PDB header: oxidoreductase Chain: A: PDB Molecule: rubredoxin:oxygen oxidoreductase; PDBTitle: rubredoxin oxygen:oxidoreductase (roo) from anaerobe2 desulfovibrio gigas
52	d2fug71	Alignment	not modelled	12.0	71	Fold: N domain of copper amine oxidase-like Superfamily: Frataxin/Nqo15-like Family: Nqo15-like
53	d2ac7a1	Alignment	not modelled	11.3	17	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases

					Family: Purine and uridine phosphorylases
54	d2fcla1	Alignment	not modelled	10.9	33 Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: TM1012-like
55	d2f7wa1	Alignment	not modelled	10.7	15 Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
56	d1f2va_	Alignment	not modelled	10.5	20 Fold: Flavodoxin-like Superfamily: Precorrin-8X methylmutase CbiC/CobH Family: Precorrin-8X methylmutase CbiC/CobH
57	d2zcta1	Alignment	not modelled	10.4	23 Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
58	c3oetF_	Alignment	not modelled	10.4	23 PDB header: oxidoreductase Chain: F: PDB Molecule: erythronate-4-phosphate dehydrogenase; PDBTitle: d-erythronate-4-phosphate dehydrogenase complexed with nad
59	c3aerC_	Alignment	not modelled	10.4	13 PDB header: oxidoreductase Chain: C: PDB Molecule: light-independent protochlorophyllide reductase subunit n; PDBTitle: structure of the light-independent protochlorophyllide reductase2 catalyzing a key reduction for greening in the dark
60	c3bsfB_	Alignment	not modelled	10.4	14 PDB header: hydrolase Chain: B: PDB Molecule: at4g34840; PDBTitle: crystal structure of the mta/sah nucleosidase
61	c1geaA_	Alignment	not modelled	10.4	56 PDB header: neuropeptide Chain: A: PDB Molecule: pituitary adenylate cyclase activating PDBTitle: receptor-bound conformation of pacap21
62	c3bl6A_	Alignment	not modelled	10.3	17 PDB header: hydrolase Chain: A: PDB Molecule: 5'-methylthioadenosine nucleosidase/s- PDBTitle: crystal structure of staphylococcus aureus 5'-2 methylthioadenosine/s-adenosylhomocysteine nucleosidase in3 complex with formycin a
63	d1jysa_	Alignment	not modelled	10.3	17 Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases
64	c1coyA_	Alignment	not modelled	9.8	15 PDB header: oxidoreductase(oxygen receptor) Chain: A: PDB Molecule: cholesterol oxidase; PDBTitle: crystal structure of cholesterol oxidase complexed with a2 steroid substrate. implications for fad dependent alcohol3 oxidases
65	d1fyja_	Alignment	not modelled	9.7	71 Fold: S15/NS1 RNA-binding domain Superfamily: S15/NS1 RNA-binding domain Family: a tRNA synthase domain
66	d1zj8a3	Alignment	not modelled	9.6	24 Fold: Nitrite and sulphite reductase 4Fe-4S domain-like Superfamily: Nitrite and sulphite reductase 4Fe-4S domain-like Family: Nitrite and sulphite reductase 4Fe-4S domain-like
67	d1k9sa_	Alignment	not modelled	9.6	12 Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases
68	c3eeiA_	Alignment	not modelled	9.3	14 PDB header: hydrolase Chain: A: PDB Molecule: 5-methylthioadenosine nucleosidase/s- PDBTitle: crystal structure of 5'-methylthioadenosine/s-2 adenosylhomocysteine nucleosidase from neisseria3 meningitidis in complex with methylthio-immucillin-a
69	d1ycga1	Alignment	not modelled	9.3	16 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Flavodoxin-related
70	c3orsD_	Alignment	not modelled	9.1	19 PDB header: isomerase,biosynthetic protein Chain: D: PDB Molecule: n5-carboxyaminoimidazole ribonucleotide mutase; PDBTitle: crystal structure of n5-carboxyaminoimidazole ribonucleotide mutase2 from staphylococcus aureus
71	c1q14A_	Alignment	not modelled	9.0	45 PDB header: hydrolase Chain: A: PDB Molecule: hst2 protein; PDBTitle: structure and autoregulation of the yeast hst2 homolog of sir2
72	c3k1yE_	Alignment	not modelled	9.0	13 PDB header: oxidoreductase Chain: E: PDB Molecule: oxidoreductase; PDBTitle: x-ray structure of oxidoreductase from corynebacterium2 diphtheriae. orthorombic crystal form, northeast structural3 genomics consortium target cdr100d
73	c3e7dC_	Alignment	not modelled	8.8	12 PDB header: isomerase Chain: C: PDB Molecule: cobh, precorrin-8x methylmutase; PDBTitle: crystal structure of precorrin-8x methyl mutase cbic/cobh from2 brucella melitensis
74	d1j8fa_	Alignment	not modelled	8.7	45 Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Sir2 family of transcriptional regulators
75	d2i9be3	Alignment	not modelled	8.6	83 Fold: Snake toxin-like Superfamily: Snake toxin-like Family: Extracellular domain of cell surface receptors
76	d2fd6u3	Alignment	not modelled	8.6	83 Fold: Snake toxin-like Superfamily: Snake toxin-like Family: Extracellular domain of cell surface receptors
77	c3dkbA_	Alignment	not modelled	8.5	16 PDB header: hydrolase Chain: A: PDB Molecule: tumor necrosis factor, alpha-induced protein 3; PDBTitle: crystal structure of a20, 2.5 angstrom
78	c2dg2D_	Alignment	not modelled	8.4	24 PDB header: protein binding Chain: D: PDB Molecule: apolipoprotein a-i binding protein; PDBTitle: crystal structure of mouse apolipoprotein a-i binding2 protein

79	c2ipiD_	Alignment	not modelled	8.4	16	PDB header: oxidoreductase Chain: D: PDB Molecule: aclacinomycin oxidoreductase (aknox); PDBTitle: crystal structure of aclacinomycin oxidoreductase
80	d1qwra_	Alignment	not modelled	8.3	24	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Type I phosphomannose isomerase
81	c3tl6B_	Alignment	not modelled	8.1	16	PDB header: transferase Chain: B: PDB Molecule: purine nucleoside phosphorylase; PDBTitle: crystal structure of purine nucleoside phosphorylase from entamoeba2 histolytica
82	d3cxeb1	Alignment	not modelled	8.1	83	Fold: 4-helical cytokines Superfamily: 4-helical cytokines Family: Short-chain cytokines
83	d1sc6a2	Alignment	not modelled	7.6	12	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
84	d1914a2	Alignment	not modelled	7.5	17	Fold: Signal recognition particle alu RNA binding heterodimer, SRP9/14 Superfamily: Signal recognition particle alu RNA binding heterodimer, SRP9/14 Family: Signal recognition particle alu RNA binding heterodimer, SRP9/14
85	c2rmzA_	Alignment	not modelled	7.5	43	PDB header: cell adhesion Chain: A: PDB Molecule: integrin beta-3; PDBTitle: bicelle-embedded integrin beta3 transmembrane segment
86	d1qmva_	Alignment	not modelled	7.3	26	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Glutathione peroxidase-like
87	d1vhwa_	Alignment	not modelled	7.2	10	Fold: Phosphorylase/hydrolase-like Superfamily: Purine and uridine phosphorylases Family: Purine and uridine phosphorylases
88	c3oj0A_	Alignment	not modelled	7.1	19	PDB header: oxidoreductase Chain: A: PDB Molecule: glutamyl-trna reductase; PDBTitle: crystal structure of glutamyl-trna reductase from thermoplasma2 volcanium (nucleotide binding domain)
89	c3klbA_	Alignment	not modelled	7.1	18	PDB header: flavoprotein Chain: A: PDB Molecule: putative flavoprotein; PDBTitle: crystal structure of putative flavoprotein in complex with fmn2 (yp_213683.1) from bacteroides fragilis nctc 9343 at 1.75 a3 resolution
90	c3iauA_	Alignment	not modelled	7.1	14	PDB header: lyase Chain: A: PDB Molecule: threonine deaminase; PDBTitle: the structure of the processed form of threonine deaminase isoform 22 from solanum lycopersicum
91	d1pwha_	Alignment	not modelled	7.1	17	Fold: Tryptophan synthase beta subunit-like PLP-dependent enzymes Superfamily: Tryptophan synthase beta subunit-like PLP-dependent enzymes Family: Tryptophan synthase beta subunit-like PLP-dependent enzymes
92	d1ygya1	Alignment	not modelled	7.1	12	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Formate/glycerate dehydrogenases, NAD-domain
93	c3edoA_	Alignment	not modelled	7.1	23	PDB header: flavoprotein Chain: A: PDB Molecule: putative trp repressor binding protein; PDBTitle: crystal structure of flavoprotein in complex with fmn2 (yp_193882.1) from lactobacillus acidophilus ncfm at 1.203 a resolution
94	c2j6iC_	Alignment	not modelled	7.0	22	PDB header: oxidoreductase Chain: C: PDB Molecule: formate dehydrogenase; PDBTitle: candida boidinii formate dehydrogenase (fdh) c-terminal2 mutant
95	c3ibqA_	Alignment	not modelled	7.0	21	PDB header: transferase Chain: A: PDB Molecule: pyridoxal kinase; PDBTitle: crystal structure of pyridoxal kinase from lactobacillus2 plantarum in complex with atp
96	c1zosE_	Alignment	not modelled	7.0	19	PDB header: hydrolase Chain: E: PDB Molecule: 5'-methylthioadenosine / s-adenosylhomocysteine PDBTitle: structure of 5'-methylthioadenosine/s-adenosylhomocysteine2 nucleosidase from s. pneumoniae with a transition-state3 inhibitor mt-imma
97	c3l3bA_	Alignment	not modelled	7.0	18	PDB header: biosynthetic protein Chain: A: PDB Molecule: es1 family protein; PDBTitle: crystal structure of isoprenoid biosynthesis protein with2 amidotransferase-like domain from ehrlichia chaffeensis at 1.90a3 resolution
98	c3iz6E_	Alignment	not modelled	6.9	10	PDB header: ribosome Chain: E: PDB Molecule: 40s ribosomal protein s2 (s5p); PDBTitle: localization of the small subunit ribosomal proteins into a 5.5 a2 cryo-em map of triticum aestivum translating 80s ribosome
99	d1rutx2	Alignment	not modelled	6.8	19	Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: LIM domain