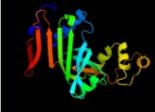
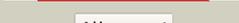
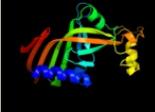


# Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P0AF17
Date	Thu Jan 5 11:26:27 GMT 2012
Unique Job ID	d340bdb4a266f76d

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	<a href="#">d2a2ja1</a>	 Alignment		100.0	41	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
2	<a href="#">c2a2jA_</a>	 Alignment		100.0	41	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> pyridoxamine 5'-phosphate oxidase; <b>PDBTitle:</b> crystal structure of a putative pyridoxine 5'-phosphate oxidase2 (rv2607) from mycobacterium tuberculosis
3	<a href="#">d1nrga_</a>	 Alignment		100.0	43	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
4	<a href="#">c1nrgA_</a>	 Alignment		100.0	43	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> pyridoxine 5'-phosphate oxidase; <b>PDBTitle:</b> structure and properties of recombinant human pyridoxine-5'-phosphate2 oxidase
5	<a href="#">d1dnla_</a>	 Alignment		100.0	98	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
6	<a href="#">d1ci0a_</a>	 Alignment		100.0	40	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
7	<a href="#">d1t9ma_</a>	 Alignment		100.0	31	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
8	<a href="#">d1ty9a_</a>	 Alignment		100.0	31	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
9	<a href="#">c2i51B_</a>	 Alignment		100.0	16	<b>PDB header:</b> flavoprotein <b>Chain:</b> B: <b>PDB Molecule:</b> uncharacterized conserved protein of cog5135; <b>PDBTitle:</b> crystal structure of a pyridoxamine 5'-phosphate oxidase-related, fmn2 binding protein (npun_f5749) from nostoc punctiforme pcc 73102 at3 1.40 a resolution
10	<a href="#">c2ou5B_</a>	 Alignment		100.0	18	<b>PDB header:</b> flavoprotein <b>Chain:</b> B: <b>PDB Molecule:</b> pyridoxamine 5'-phosphate oxidase-related, fmn-binding; <b>PDBTitle:</b> crystal structure of a pyridoxamine 5'-phosphate oxidase-related fmn-2 binding protein (jann_0254) from jannaschia sp. ccs1 at 1.60 a3 resolution
11	<a href="#">d2i02a1</a>	 Alignment		99.9	22	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like

12	<a href="#">c2re7A_</a>	Alignment		99.9	19	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of a pyridoxamine 5'-phosphate oxidase related2 protein (psyc_0186) from psychrobacter arcticus 273-4 at 2.50 a3 resolution
13	<a href="#">c2hhzA_</a>	Alignment		99.9	21	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> pyridoxamine 5'-phosphate oxidase-related; <b>PDBTitle:</b> crystal structure of a pyridoxamine 5'-phosphate oxidase-related2 protein (ssuidraft_2804) from streptococcus suis 89/1591 at 2.00 a3 resolution
14	<a href="#">d2hq7a1</a>	Alignment		99.9	16	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
15	<a href="#">c3dmbA_</a>	Alignment		99.9	14	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> putative general stress protein 26 with a pnp-oxidase like <b>PDBTitle:</b> crystal structure of a putative general stress family protein2 (xcc2264) from xanthomonas campestris pv. campestris at 2.30 a3 resolution
16	<a href="#">d2fhqa1</a>	Alignment		99.9	17	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
17	<a href="#">c3ec6A_</a>	Alignment		99.9	20	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> general stress protein 26; <b>PDBTitle:</b> crystal structure of the general stress protein 26 from bacillus2 anthracis str. sterne
18	<a href="#">c2ig6B_</a>	Alignment		99.9	18	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> ni mc/nima family protein; <b>PDBTitle:</b> crystal structure of a ni mc/nima family protein (ca_c2569) from2 clostridium acetobutylicum at 1.80 a resolution
19	<a href="#">c2iabB_</a>	Alignment		99.9	22	<b>PDB header:</b> unknown function <b>Chain:</b> B: <b>PDB Molecule:</b> hypothetical protein; <b>PDBTitle:</b> crystal structure of a protein with fmn-binding split barrel fold2 (np_828636.1) from streptomyces avermitilis at 2.00 a resolution
20	<a href="#">d1vl7a_</a>	Alignment		99.8	24	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
21	<a href="#">c3db0B_</a>	Alignment	not modelled	99.8	19	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> lin2891 protein; <b>PDBTitle:</b> crystal structure of putative pyridoxamine 5'-phosphate oxidase2 (np_472219.1) from listeria innocua at 2.00 a resolution
22	<a href="#">c2qeaB_</a>	Alignment	not modelled	99.8	18	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> putative general stress protein 26; <b>PDBTitle:</b> crystal structure of a putative general stress protein 26 (jann_0955)2 from jannaschia sp. ccs1 at 2.46 a resolution
23	<a href="#">d2asfa1</a>	Alignment	not modelled	99.8	17	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
24	<a href="#">c3f7eB_</a>	Alignment	not modelled	99.7	17	<b>PDB header:</b> unknown function <b>Chain:</b> B: <b>PDB Molecule:</b> pyridoxamine 5'-phosphate oxidase-related, fmn- <b>PDBTitle:</b> msmeg_3380 f420 reductase
25	<a href="#">d1rfea_</a>	Alignment	not modelled	99.7	22	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
26	<a href="#">c2htdB_</a>	Alignment	not modelled	99.7	18	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> predicted flavin-nucleotide-binding protein from cog3576 <b>PDBTitle:</b> crystal structure of a putative pyridoxamine 5'-phosphate oxidase2 (ldb0262) from lactobacillus delbrueckii subsp. at 1.60 a resolution
27	<a href="#">d1w9aa_</a>	Alignment	not modelled	99.6	13	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
28	<a href="#">d2htia1</a>	Alignment	not modelled	99.6	21	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
						<b>PDB header:</b> fmn-binding protein

29	<a href="#">c2htiA</a>	Alignment	not modelled	99.6	21	<b>Chain:</b> A: <b>PDB Molecule:</b> bh0577 protein; <b>PDBTitle:</b> crystal structure of a flavin-nucleotide-binding protein (bh_0577)2 from bacillus halodurans at 2.50 a resolution
30	<a href="#">c2q9kA</a>	Alignment	not modelled	99.6	17	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of a putative oxidoreductase (exig_1997) from2 exiguobacterium sibiricum 255-15 at 1.59 a resolution
31	<a href="#">d2fg9a1</a>	Alignment	not modelled	99.5	15	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
32	<a href="#">d1flma</a>	Alignment	not modelled	99.4	18	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
33	<a href="#">c3gasA</a>	Alignment	not modelled	99.4	15	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> heme oxygenase; <b>PDBTitle:</b> crystal structure of helicobacter pylori heme oxygenase hugz2 in complex with heme
34	<a href="#">d2arza1</a>	Alignment	not modelled	99.4	17	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
35	<a href="#">d2hq9a1</a>	Alignment	not modelled	99.3	22	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
36	<a href="#">c3dnhB</a>	Alignment	not modelled	99.3	15	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> B: <b>PDB Molecule:</b> uncharacterized protein atu2129; <b>PDBTitle:</b> the crystal structure of the protein atu2129 (unknown function) from2 agrobacterium tumefaciens str. c58
37	<a href="#">c3fkhB</a>	Alignment	not modelled	99.2	16	<b>PDB header:</b> oxidoreductase <b>Chain:</b> B: <b>PDB Molecule:</b> putative pyridoxamine 5'-phosphate oxidase; <b>PDBTitle:</b> crystal structure of putative pyridoxamine 5'-phosphate oxidase2 (np_601736.1) from corynebacterium glutamicum atcc 13032 kitasato at3 2.51 a resolution
38	<a href="#">c3cp3A</a>	Alignment	not modelled	99.1	11	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of conserved protein of unknown function dip18742 from corynebacterium diphtheriae
39	<a href="#">d2fura1</a>	Alignment	not modelled	98.8	16	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
40	<a href="#">c3ba3A</a>	Alignment	not modelled	98.8	17	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> pyridoxamine 5'-phosphate oxidase-like protein; <b>PDBTitle:</b> crystal structure of pyridoxamine 5'-phosphate oxidase-like protein2 (np_783940.1) from lactobacillus plantarum at 1.55 a resolution
41	<a href="#">d1xhna1</a>	Alignment	not modelled	98.6	14	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
42	<a href="#">d2vpaa1</a>	Alignment	not modelled	98.4	23	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> PNP-oxidase like
43	<a href="#">c2o15B</a>	Alignment	not modelled	98.3	13	<b>PDB header:</b> transcription regulator <b>Chain:</b> B: <b>PDB Molecule:</b> pai 2 protein; <b>PDBTitle:</b> crystal structure of a protease synthase and sporulation negative2 regulatory protein pai 2 from bacillus stearothermophilus
44	<a href="#">c3h96B</a>	Alignment	not modelled	96.8	8	<b>PDB header:</b> flavoprotein <b>Chain:</b> B: <b>PDB Molecule:</b> f420-h2 dependent reductase a; <b>PDBTitle:</b> msmeg_3358 f420 reductase
45	<a href="#">d2ptfa1</a>	Alignment	not modelled	91.0	18	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> MTH863-like
46	<a href="#">c2ptfB</a>	Alignment	not modelled	89.2	18	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> B: <b>PDB Molecule:</b> uncharacterized protein mth_863; <b>PDBTitle:</b> crystal structure of protein mth_863 from methanobacterium2 thermoautotrophicum bound to fmn
47	<a href="#">c3b5mD</a>	Alignment	not modelled	63.5	18	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> D: <b>PDB Molecule:</b> uncharacterized protein; <b>PDBTitle:</b> crystal structure of conserved uncharacterized protein from2 rhodospirillum rubrum
48	<a href="#">d2imla1</a>	Alignment	not modelled	50.7	12	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> MTH863-like
49	<a href="#">c3fgeA</a>	Alignment	not modelled	48.0	8	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> putative flavin reductase with split barrel domain; <b>PDBTitle:</b> crystal structure of putative flavin reductase with split barrel2 domain (yp_750721.1) from shewanella frigidimarina ncimb 400 at 1.743 a resolution
50	<a href="#">c3bjqA</a>	Alignment	not modelled	42.7	13	<b>PDB header:</b> viral protein <b>Chain:</b> A: <b>PDB Molecule:</b> phage-related protein; <b>PDBTitle:</b> crystal structure of a phage-related protein (bb3626) from bordetella2 bronchiseptica rb50 at 2.05 a resolution
51	<a href="#">c3psqA</a>	Alignment	not modelled	41.8	10	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical exported protein; <b>PDBTitle:</b> crystal structure of spy0129, a streptococcus pyogenes class b sortase2 involved in pilus biogenesis
52	<a href="#">d1ejea</a>	Alignment	not modelled	40.1	22	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> NADH:FMN oxidoreductase-like
53	<a href="#">d1usca</a>	Alignment	not modelled	37.8	12	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> NADH:FMN oxidoreductase-like

54	<a href="#">c3bnkB</a>	Alignment	not modelled	32.4	13	<b>PDB header:</b> electron transport <b>Chain:</b> B: <b>PDB Molecule:</b> flavoredoxin; <b>PDBTitle:</b> x-ray crystal structure of flavoredoxin from methanosarcina2 acetivorans
55	<a href="#">c3e4vA</a>	Alignment	not modelled	29.1	11	<b>PDB header:</b> flavoprotein <b>Chain:</b> A: <b>PDB Molecule:</b> nadh:fmn oxidoreductase like protein; <b>PDBTitle:</b> crystal structure of nadh:fmn oxidoreductase like protein in complex2 with fmn (yp_544701.1) from methylobacillus flagellatus kt at 1.40 a3 resolution
56	<a href="#">d1rz0a</a>	Alignment	not modelled	28.8	11	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> NADH:FMN oxidoreductase-like
57	<a href="#">c2d5mA</a>	Alignment	not modelled	24.0	10	<b>PDB header:</b> electron transport <b>Chain:</b> A: <b>PDB Molecule:</b> flavoredoxin; <b>PDBTitle:</b> flavoredoxin of desulfovibrio vulgaris (miyazaki f)
58	<a href="#">d1qwza</a>	Alignment	not modelled	19.1	17	<b>Fold:</b> Sortase <b>Superfamily:</b> Sortase <b>Family:</b> Sortase
59	<a href="#">d1eoqa</a>	Alignment	not modelled	17.4	23	<b>Fold:</b> Acyl carrier protein-like <b>Superfamily:</b> Retrovirus capsid dimerization domain-like <b>Family:</b> Retrovirus capsid protein C-terminal domain
60	<a href="#">d1ikpa1</a>	Alignment	not modelled	17.2	33	<b>Fold:</b> Concanavalin A-like lectins/glucanases <b>Superfamily:</b> Concanavalin A-like lectins/glucanases <b>Family:</b> Exotoxin A, N-terminal domain
61	<a href="#">c3bk5A</a>	Alignment	not modelled	14.7	16	<b>PDB header:</b> structural genomics, unknown function <b>Chain:</b> A: <b>PDB Molecule:</b> putative outer membrane lipoprotein-sorting protein; <b>PDBTitle:</b> crystal structure of putative outer membrane lipoprotein-sorting2 protein domain from vibrio parahaemolyticus
62	<a href="#">c3pftA</a>	Alignment	not modelled	14.7	8	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> flavin reductase; <b>PDBTitle:</b> crystal structure of untagged c54a mutant flavin reductase (dszd) in2 complex with fmn from mycobacterium goodii
63	<a href="#">c2kp7A</a>	Alignment	not modelled	9.7	44	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> crossover junction endonuclease mus81; <b>PDBTitle:</b> solution nmr structure of the mus81 n-terminal hhh.2 northeast structural genomics consortium target mmt1a
64	<a href="#">c3rbjB</a>	Alignment	not modelled	8.5	8	<b>PDB header:</b> hydrolase <b>Chain:</b> B: <b>PDB Molecule:</b> sortase family protein; <b>PDBTitle:</b> crystal structure of the lid-mutant of streptococcus agalactiae2 sortase c1
65	<a href="#">d1qbaa1</a>	Alignment	not modelled	8.1	27	<b>Fold:</b> Immunoglobulin-like beta-sandwich <b>Superfamily:</b> E set domains <b>Family:</b> E-set domains of sugar-utilizing enzymes
66	<a href="#">d2oqza1</a>	Alignment	not modelled	8.0	23	<b>Fold:</b> Sortase <b>Superfamily:</b> Sortase <b>Family:</b> Sortase
67	<a href="#">d1i0ra</a>	Alignment	not modelled	7.8	7	<b>Fold:</b> Split barrel-like <b>Superfamily:</b> FMN-binding split barrel <b>Family:</b> NADH:FMN oxidoreductase-like
68	<a href="#">c2khxA</a>	Alignment	not modelled	7.2	12	<b>PDB header:</b> gene regulation,nuclear protein <b>Chain:</b> A: <b>PDB Molecule:</b> ribonuclease 3; <b>PDBTitle:</b> drosha double-stranded rna binding motif
69	<a href="#">c2xwgA</a>	Alignment	not modelled	7.2	13	<b>PDB header:</b> hydrolase <b>Chain:</b> A: <b>PDB Molecule:</b> sortase; <b>PDBTitle:</b> crystal structure of sortase c-1 from actinomyces oris (formerly2 actinomyces naeslundii)
70	<a href="#">d1wiia</a>	Alignment	not modelled	7.1	12	<b>Fold:</b> Rubredoxin-like <b>Superfamily:</b> Zinc beta-ribbon <b>Family:</b> Putative zinc binding domain
71	<a href="#">c3rh7A</a>	Alignment	not modelled	6.9	18	<b>PDB header:</b> oxidoreductase <b>Chain:</b> A: <b>PDB Molecule:</b> hypothetical oxidoreductase; <b>PDBTitle:</b> crystal structure of a hypothetical oxidoreductase (sma0793) from2 sinorhizobium meliloti 1021 at 3.00 a resolution
72	<a href="#">c2zyzA</a>	Alignment	not modelled	5.8	14	<b>PDB header:</b> splicing <b>Chain:</b> A: <b>PDB Molecule:</b> putative uncharacterized protein pae0789; <b>PDBTitle:</b> pyrobaculum aerophilum splicing endonuclease
73	<a href="#">c1ikqA</a>	Alignment	not modelled	5.4	33	<b>PDB header:</b> transferase <b>Chain:</b> A: <b>PDB Molecule:</b> exotoxin a; <b>PDBTitle:</b> pseudomonas aeruginosa exotoxin a, wild type
74	<a href="#">d1qrjbl</a>	Alignment	not modelled	5.3	24	<b>Fold:</b> Acyl carrier protein-like <b>Superfamily:</b> Retrovirus capsid dimerization domain-like <b>Family:</b> Retrovirus capsid protein C-terminal domain
75	<a href="#">d1ng5a</a>	Alignment	not modelled	5.1	18	<b>Fold:</b> Sortase <b>Superfamily:</b> Sortase <b>Family:</b> Sortase