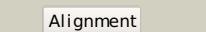
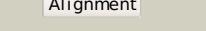
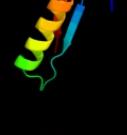
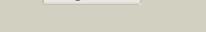
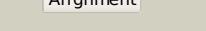
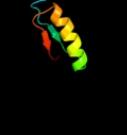
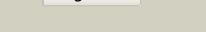
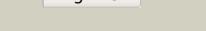
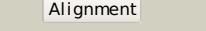


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	Q47719
Date	Thu Jan 5 12:37:11 GMT 2012
Unique Job ID	32d34449a821fb1f

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2vg3B_			98.2	25	PDB header: oxidoreductase Chain: B; PDB Molecule: metalloreductase steap3; PDBTitle: crystal structure of the membrane proximal oxidoreductase2 domain of human steap3, the dominant ferric reductase of3 the erythroid transferrin cycle
2	c3dttA_			98.0	20	PDB header: oxidoreductase Chain: A; PDB Molecule: nadp oxidoreductase; PDBTitle: crystal structure of a putative f420 dependent nadp-reductase2 (arth_0613) from arthrobacter sp. fb24 at 1.70 a resolution
3	c2rafcC_			97.8	15	PDB header: oxidoreductase Chain: C; PDB Molecule: putative dinucleotide-binding oxidoreductase; PDBTitle: crystal structure of putative dinucleotide-binding2 oxidoreductase (np_786167.1) from lactobacillus plantarum3 at 1.60 a resolution
4	d1jaya_			97.8	25	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
5	d1wdka3			78.2	13	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
6	d3cum2			71.9	17	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
7	c3d1IB_			70.3	5	PDB header: oxidoreductase Chain: B; PDB Molecule: putative nadp oxidoreductase bf3122; PDBTitle: crystal structure of putative nadp oxidoreductase bf3122 from2 bacteroides fragilis
8	c3b0vD_			69.6	19	PDB header: oxidoreductase/rna Chain: D; PDB Molecule: tRNA-dihydrouridine synthase; PDBTitle: tRNA-dihydrouridine synthase from thermus thermophilus in complex with2 tRNA
9	d1pgja2			64.4	6	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
10	d1vpda2			57.6	17	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
11	d1f0ya2			52.3	10	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain

12	c2f6rA			45.6	18	PDB header: transferase Chain: A: PDB Molecule: bifunctional coenzyme a synthase; PDBTitle: crystal structure of bifunctional coenzyme a synthase (coa synthase):2 (18044849) from mus musculus at 1.70 Å resolution
13	d1mv8a2			43.2	4	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
14	c3s5pA			40.2	26	PDB header: isomerase Chain: A: PDB Molecule: ribose 5-phosphate isomerase; PDBTitle: crystal structure of ribose-5-phosphate isomerase b rpiB from giardia2 lamblia
15	c2yv3B			37.0	19	PDB header: oxidoreductase Chain: B: PDB Molecule: aspartate-semialdehyde dehydrogenase; PDBTitle: crystal structure of aspartate semialdehyde dehydrogenase from thermus2 thermophilus hb8
16	d2cvza2			36.4	25	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
17	d1nn4a			31.8	15	Fold: Ribose/Galactose isomerase RpiB/AlsB Superfamily: Ribose/Galactose isomerase RpiB/AlsB Family: Ribose/Galactose isomerase RpiB/AlsB
18	d1vhna			31.4	16	Fold: TIM beta/alpha-barrel Superfamily: FMN-linked oxidoreductases Family: FMN-linked oxidoreductases
19	d1i36a2			28.2	8	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
20	d1yt8a4			27.5	15	Fold: Rhodanese/Cell cycle control phosphatase Superfamily: Rhodanese/Cell cycle control phosphatase Family: Multidomain sulfurtransferase (rhodanese)
21	c3he8A		not modelled	26.1	13	PDB header: isomerase Chain: A: PDB Molecule: ribose-5-phosphate isomerase; PDBTitle: structural study of clostridium thermocellum ribose-5-phosphate2 isomerase b PDB header: transferase Chain: A: PDB Molecule: adenyllyltransferase and sulfurtransferase mocs3; PDBTitle: crystal structure of human mocs3 rhodanese-like domain
22	c3i2vA		not modelled	26.0	12	Fold: Dodecin subunit-like Superfamily: D-lysine 5,6-aminomutase beta subunit KamE, N-terminal domain Family: D-lysine 5,6-aminomutase beta subunit KamE, N-terminal domain
23	d1xrsb2		not modelled	25.4	5	Fold: Aldehyde ferredoxin oxidoreductase, C-terminal domains Superfamily: Aldehyde ferredoxin oxidoreductase, C-terminal domains Family: Aldehyde ferredoxin oxidoreductase, C-terminal domains
24	d1b25a1		not modelled	22.6	19	PDB header: transferase Chain: B: PDB Molecule: putative thiosulfate sulfurtransferase; PDBTitle: crystal structure of probable thiosulfate sulfurtransferase2 cysa3 (rv3117) from mycobacterium tuberculosis: monoclinic3 form
25	c3aaxB		not modelled	21.6	15	Fold: Ribose/Galactose isomerase RpiB/AlsB Superfamily: Ribose/Galactose isomerase RpiB/AlsB Family: Ribose/Galactose isomerase RpiB/AlsB
26	d2vvpa1		not modelled	21.6	27	Fold: PurS-like Superfamily: PurS-like Family: PurS subunit of FGAM synthetase
27	d1t4aa		not modelled	21.2	8	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
28	d1umka2		not modelled	20.0	12	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases

29	d2i76a2		Alignment	not modelled	19.7	9	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
30	c2zayA		Alignment	not modelled	19.4	16	PDB header: signaling protein Chain: A: PDB Molecule: response regulator receiver protein; PDBTitle: crystal structure of response regulator from desulfuromonas2 acetoxidans
31	c2yx5A		Alignment	not modelled	19.1	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0062 protein mj1593; PDBTitle: crystal structure of methanocaldococcus jannaschii purs, one of the2 subunits of formylglycinamide ribonucleotide amidotransferase in the3 purine biosynthetic pathway
32	d3bula2		Alignment	not modelled	18.8	10	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
33	d2pgda2		Alignment	not modelled	18.5	11	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
34	d2a9pa1		Alignment	not modelled	17.1	11	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
35	d1aora1		Alignment	not modelled	17.0	15	Fold: Aldehyde ferredoxin oxidoreductase, C-terminal domains Superfamily: Aldehyde ferredoxin oxidoreductase, C-terminal domains Family: Aldehyde ferredoxin oxidoreductase, C-terminal domains
36	d1qx4a2		Alignment	not modelled	16.9	10	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
37	c3kevA		Alignment	not modelled	16.3	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: galieria sulfuraria dcun1 domain-containing protein; PDBTitle: x-ray crystal structure of a dcun1 domain-containing protein from2 galieria sulfuraria
38	c3dzba		Alignment	not modelled	15.9	2	PDB header: biosynthetic protein Chain: A: PDB Molecule: prephenate dehydrogenase; PDBTitle: crystal structure of prephenate dehydrogenase from streptococcus2 thermophilus
39	c3hpXB		Alignment	not modelled	15.9	18	PDB header: transferase Chain: B: PDB Molecule: 2-isopropylmalate synthase; PDBTitle: crystal structure of mycobacterium tuberculosis leua active site2 domain 1-425 (truncation mutant delta:426-644)
40	c1bmtB		Alignment	not modelled	15.8	13	PDB header: methyltransferase Chain: B: PDB Molecule: methionine synthase; PDBTitle: how a protein binds b12: a 3.0 angstrom x-ray structure of2 the b12-binding domains of methionine synthase
41	d1o1xa		Alignment	not modelled	15.7	20	Fold: Ribose/Galactose isomerase RpiB/AlsB Superfamily: Ribose/Galactose isomerase RpiB/AlsB Family: Ribose/Galactose isomerase RpiB/AlsB
42	c3cumA		Alignment	not modelled	15.3	13	PDB header: oxidoreductase Chain: A: PDB Molecule: probable 3-hydroxyisobutyrate dehydrogenase; PDBTitle: crystal structure of a possible 3-hydroxyisobutyrate dehydrogenase2 from pseudomonas aeruginosa pao1
43	c1wsrA		Alignment	not modelled	15.1	16	PDB header: transferase Chain: A: PDB Molecule: aminomethyltransferase; PDBTitle: crystal structure of human t-protein of glycine cleavage2 system
44	c3ch4B		Alignment	not modelled	15.1	19	PDB header: transferase Chain: B: PDB Molecule: phosphomevalonate kinase; PDBTitle: the crystal structure of human phosphomavelonate kinase at2 1.8 a resolution
45	c1b4nD		Alignment	not modelled	14.8	19	PDB header: oxidoreductase Chain: D: PDB Molecule: formaldehyde ferredoxin oxidoreductase; PDBTitle: formaldehyde ferredoxin oxidoreductase from pyrococcus furiosus,2 complexed with glutarate
46	c1aorB		Alignment	not modelled	14.6	15	PDB header: oxidoreductase Chain: B: PDB Molecule: aldehyde ferredoxin oxidoreductase; PDBTitle: structure of a hyperthermophilic tungstopterin enzyme,2 aldehyde ferredoxin oxidoreductase
47	d2bjca1		Alignment	not modelled	14.1	6	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
48	c3aerB		Alignment	not modelled	13.8	18	PDB header: oxidoreductase Chain: B: PDB Molecule: light-independent protochlorophyllide reductase subunit b; PDBTitle: structure of the light-independent protochlorophyllide reductase2 catalyzing a key reduction for greening in the dark
49	d1uf9a		Alignment	not modelled	13.4	9	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
50	d3ci0k2		Alignment	not modelled	13.4	28	Fold: SAM domain-like Superfamily: GspK insert domain-like Family: GspK insert domain-like
51	c2jrIA		Alignment	not modelled	13.0	16	PDB header: transcription Chain: A: PDB Molecule: transcriptional regulator (ntrc family); PDBTitle: solution structure of the berylliofluoride-activated ntrc4 receiver2 domain dimer
52	c3g0oA		Alignment	not modelled	12.7	7	PDB header: oxidoreductase Chain: A: PDB Molecule: 3-hydroxyisobutyrate dehydrogenase; PDBTitle: crystal structure of 3-hydroxyisobutyrate dehydrogenase2 (ygbj) from salmonella typhimurium
53	c3crnA		Alignment	not modelled	12.5	14	PDB header: signaling protein Chain: A: PDB Molecule: response regulator receiver domain protein, cheY-like;

					PDBTitle: crystal structure of response regulator receiver domain protein (cheY-2 like) from methanospirillum hungatei jf-1
54	c3pefA_	Alignment	not modelled	12.5	PDB header: oxidoreductase Chain: A: PDB Molecule: 6-phosphogluconate dehydrogenase, nad-binding; PDBTitle: crystal structure of gamma-hydroxybutyrate dehydrogenase from2 geobacter metallireducens in complex with nadp+
55	c1yb4A_	Alignment	not modelled	12.2	PDB header: oxidoreductase Chain: A: PDB Molecule: tartronic semialdehyde reductase; PDBTitle: crystal structure of the tartronic semialdehyde reductase from2 salmonella typhimurium lt2
56	c3ckyA_	Alignment	not modelled	12.1	PDB header: oxidoreductase Chain: A: PDB Molecule: 2-hydroxymethyl glutarate dehydrogenase; PDBTitle: structural and kinetic properties of a beta-hydroxyacid dehydrogenase2 involved in nicotinate fermentation
57	c2l8nA_	Alignment	not modelled	11.9	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional repressor cytR; PDBTitle: nmr structure of the cytidine repressor dna binding domain in presence2 of operator half-site dna
58	d1vhfa_	Alignment	not modelled	11.7	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
59	d1jdqa_	Alignment	not modelled	11.5	Fold: I3-like Superfamily: SirA-like Family: SirA-like
60	c2zwmA_	Alignment	not modelled	11.4	PDB header: transcription Chain: A: PDB Molecule: transcriptional regulatory protein yyCF; PDBTitle: crystal structure of yyCF receiver domain from bacillus2 subtilis
61	d2hsqg1	Alignment	not modelled	11.3	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
62	c3cfyA_	Alignment	not modelled	10.9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative luxo repressor protein; PDBTitle: crystal structure of signal receiver domain of putative luxo2 repressor protein from vibrio parahaemolyticus
63	d1uxca_	Alignment	not modelled	10.7	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
64	c3pdvF_	Alignment	not modelled	10.7	PDB header: oxidoreductase Chain: F: PDB Molecule: 3-hydroxyisobutyrate dehydrogenase family protein; PDBTitle: crystal structure of gamma-hydroxybutyrate dehydrogenase from2 geobacter sulfurreducens in complex with nadp+
65	c2is9A_	Alignment	not modelled	10.6	PDB header: transcription Chain: A: PDB Molecule: defective in cullin neddylation protein 1; PDBTitle: structure of yeast dcn-1
66	d1qpza1	Alignment	not modelled	10.6	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
67	c2gz3D_	Alignment	not modelled	10.6	PDB header: oxidoreductase Chain: D: PDB Molecule: aspartate beta-semialdehyde dehydrogenase; PDBTitle: structure of aspartate semialdehyde dehydrogenase (asadh) from2 streptococcus pneumoniae complexed with nadp and aspartate-3 semialdehyde
68	c3gl9B_	Alignment	not modelled	10.6	PDB header: signaling protein Chain: B: PDB Molecule: response regulator; PDBTitle: the structure of a histidine kinase-response regulator2 complex sheds light into two-component signaling and3 reveals a novel cis autophosphorylation mechanism
69	d2g5ca2	Alignment	not modelled	10.1	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
70	d1lcda_	Alignment	not modelled	10.1	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
71	d1efaa1	Alignment	not modelled	10.0	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
72	c1vpdA_	Alignment	not modelled	10.0	PDB header: oxidoreductase Chain: A: PDB Molecule: tartronate semialdehyde reductase; PDBTitle: x-ray crystal structure of tartronate semialdehyde reductase2 [salmonella typhimurium lt2]
73	d1dcja_	Alignment	not modelled	9.9	Fold: I3-like Superfamily: SirA-like Family: SirA-like
74	c3hdvB_	Alignment	not modelled	9.8	PDB header: transcription regulator Chain: B: PDB Molecule: response regulator; PDBTitle: crystal structure of response regulator receiver protein from2 pseudomonas putida
75	c3eodA_	Alignment	not modelled	9.7	PDB header: signaling protein Chain: A: PDB Molecule: protein hnr; PDBTitle: crystal structure of n-terminal domain of e. coli rssB
76	d2hjsa1	Alignment	not modelled	9.5	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
77	d1qkka_	Alignment	not modelled	9.4	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related

78	c3iwdC	Alignment	not modelled	9.4	13	PDB header: lyase Chain: C; PDB Molecule: s-adenosylmethionine decarboxylase; PDBTitle: t. maritima adometdc complex with 5'-deoxy-5'-dimethyl2 thioadenosine
79	d2cnnda2	Alignment	not modelled	9.4	9	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
80	c2rhmD	Alignment	not modelled	9.4	7	PDB header: unknown function Chain: D; PDB Molecule: putative kinase; PDBTitle: crystal structure of a putative kinase (caur_3907) from chloroflexus2 aurantiacus j-10-fl at 1.70 a resolution
81	c3lteH	Alignment	not modelled	9.3	9	PDB header: transcription Chain: H; PDB Molecule: response regulator; PDBTitle: crystal structure of response regulator (signal receiver domain) from2 bermanella marisrubri
82	c3hzua	Alignment	not modelled	9.3	19	PDB header: transferase Chain: A; PDB Molecule: thiosulfate sulfurtransferase ssea; PDBTitle: crystal structure of probable thiosulfate sulfurtransferase ssea2 (rhodanese) from mycobacterium tuberculosis
83	d2f1ka2	Alignment	not modelled	9.3	6	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain
84	c2yxba	Alignment	not modelled	9.2	34	PDB header: isomerase Chain: A; PDB Molecule: coenzyme b12-dependent mutase; PDBTitle: crystal structure of the methylmalonyl-coa mutase alpha-subunit from2 aeropyrum pernix
85	d1uxda	Alignment	not modelled	9.2	22	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: GalR/LacI-like bacterial regulator
86	d1xhfa1	Alignment	not modelled	9.1	14	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
87	d1m98a1	Alignment	not modelled	9.0	36	Fold: Orange carotenoid protein, N-terminal domain Superfamily: Orange carotenoid protein, N-terminal domain Family: Orange carotenoid protein, N-terminal domain
88	c2k29A	Alignment	not modelled	9.0	11	PDB header: transcription Chain: A; PDB Molecule: antitoxin relb; PDBTitle: structure of the dbd domain of e. coli antitoxin relb
89	c1zuiA	Alignment	not modelled	8.7	5	PDB header: transferase Chain: A; PDB Molecule: shikimate kinase; PDBTitle: structural basis for shikimate-binding specificity of helicobacter2 pylori shikimate kinase
90	d1fmfa	Alignment	not modelled	8.6	21	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
91	c2lcvA	Alignment	not modelled	8.5	17	PDB header: transcription regulator Chain: A; PDB Molecule: hth-type transcriptional repressor cyr; PDBTitle: structure of the cytidine repressor dna-binding domain; an alternate2 calculation
92	c2nqqA	Alignment	not modelled	8.3	21	PDB header: biosynthetic protein Chain: A; PDB Molecule: molybdopterin biosynthesis protein moea; PDBTitle: moea r137q
93	c3nhzA	Alignment	not modelled	8.2	18	PDB header: dna binding protein Chain: A; PDB Molecule: two component system transcriptional regulator mtra; PDBTitle: structure of n-terminal domain of mtra
94	c1ys4A	Alignment	not modelled	8.1	21	PDB header: oxidoreductase Chain: A; PDB Molecule: aspartate-semialdehyde dehydrogenase; PDBTitle: structure of aspartate-semialdehyde dehydrogenase from2 methanococcus jannaschii
95	c2uuyD	Alignment	not modelled	8.0	16	PDB header: cytokine Chain: D; PDB Molecule: n-pac protein; PDBTitle: structure of the cytokine-like nuclear factor n-pac
96	c3h0kA	Alignment	not modelled	8.0	6	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: upf0200 protein sso1041; PDBTitle: crystal structure of an adenylated kinase related protein from2 sulfolobus solfataricus to 3.25a
97	d1pj5a4	Alignment	not modelled	7.9	15	Fold: Folate-binding domain Superfamily: Folate-binding domain Family: Aminomethyltransferase folate-binding domain
98	c2i76B	Alignment	not modelled	7.9	3	PDB header: structural genomics, unknown function Chain: B; PDB Molecule: hypothetical protein; PDBTitle: crystal structure of protein tm1727 from thermotoga maritima
99	c2pjuD	Alignment	not modelled	7.9	15	PDB header: transcription Chain: D; PDB Molecule: propionate catabolism operon regulatory protein; PDBTitle: crystal structure of propionate catabolism operon2 regulatory protein prpr