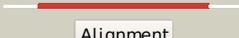
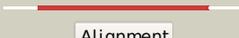
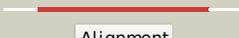
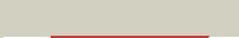
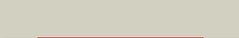
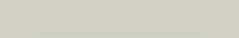
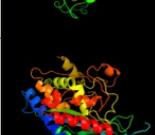
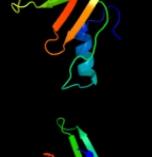
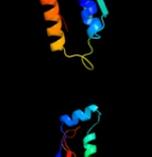
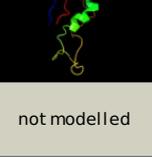


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P0A9C5
Date	Thu Jan 5 11:09:53 GMT 2012
Unique Job ID	e9961bc2c0d05e33

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1fpyE_	 Alignment		100.0	98	PDB header: ligase Chain: E; PDB Molecule: glutamine synthetase; PDBTitle: crystal structure of glutamine synthetase from salmonella2 typhimurium with inhibitor phosphinothricin
2	c3ng0A_	 Alignment		100.0	56	PDB header: ligase Chain: A; PDB Molecule: glutamine synthetase; PDBTitle: crystal structure of glutamine synthetase from synechocystis sp. pcc2 6803
3	c1htoB_	 Alignment		100.0	52	PDB header: ligase Chain: B; PDB Molecule: glutamine synthetase; PDBTitle: crystallographic structure of a relaxed glutamine synthetase from2 mycobacterium tuberculosis
4	c2j9iL_	 Alignment		100.0	28	PDB header: ligase Chain: L; PDB Molecule: glutamate-ammonia ligase domain-containing PDBTitle: lengsin is a survivor of an ancient family of class i2 glutamine synthetases in eukaryotes that has undergone3 evolutionary re-engineering for a tissue-specific role4 in the vertebrate eye lens.
5	d1f52a2	 Alignment		100.0	97	Fold: Glutamine synthetase/guanido kinase Superfamily: Glutamine synthetase/guanido kinase Family: Glutamine synthetase catalytic domain
6	d2bvca2	 Alignment		100.0	54	Fold: Glutamine synthetase/guanido kinase Superfamily: Glutamine synthetase/guanido kinase Family: Glutamine synthetase catalytic domain
7	c2qc8J_	 Alignment		100.0	26	PDB header: ligase Chain: J; PDB Molecule: glutamine synthetase; PDBTitle: crystal structure of human glutamine synthetase in complex with adp2 and methionine sulfoximine phosphate
8	c2d3aj_	 Alignment		100.0	20	PDB header: ligase Chain: J; PDB Molecule: glutamine synthetase; PDBTitle: crystal structure of the maize glutamine synthetase2 complexed with adp and methionine sulfoximine phosphate
9	c3fkyD_	 Alignment		100.0	22	PDB header: ligase Chain: D; PDB Molecule: glutamine synthetase; PDBTitle: crystal structure of the glutamine synthetase gln1deltan182 from the yeast saccharomyces cerevisiae
10	c3o6xC_	 Alignment		100.0	23	PDB header: ligase Chain: C; PDB Molecule: glutamine synthetase; PDBTitle: crystal structure of the type iii glutamine synthetase from2 bacteroides fragilis
11	d1f52a1	 Alignment		99.9	100	Fold: beta-Grasp (ubiquitin-like) Superfamily: Glutamine synthetase, N-terminal domain Family: Glutamine synthetase, N-terminal domain

12	d2bvca1	Alignment		99.9	45	Fold: beta-Grasp (ubiquitin-like) Superfamily: Glutamine synthetase, N-terminal domain Family: Glutamine synthetase, N-terminal domain
13	c1tt4B_	Alignment		99.0	24	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative cytoplasmic protein; PDBTitle: structure of np459575, a predicted glutathione synthase from2 salmonella typhi murium
14	d1tt4a_	Alignment		98.9	23	Fold: Glutamine synthetase/guaniido kinase Superfamily: Glutamine synthetase/guaniido kinase Family: Glutamate-cysteine ligase family 2 (GCS2)
15	d1r8ga_	Alignment		98.9	24	Fold: Glutamine synthetase/guaniido kinase Superfamily: Glutamine synthetase/guaniido kinase Family: Glutamate-cysteine ligase family 2 (GCS2)
16	c2gwcE_	Alignment		97.9	17	PDB header: ligase Chain: E: PDB Molecule: glutamate cysteine ligase; PDBTitle: crystal structure of plant glutamate cysteine ligase in complex with a2 transition state analogue
17	c3ln7A_	Alignment		65.2	16	PDB header: ligase Chain: A: PDB Molecule: glutathione biosynthesis bifunctional protein gshab; PDBTitle: crystal structure of a bifunctional glutathione synthetase from2 pasteurilla multocida
18	c2p6yA_	Alignment		39.3	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein vca0587; PDBTitle: x-ray structure of the protein q9km02_vibch from vibrio cholerae at2 the resolution 1.63 a. northeast structural genomics consortium3 target vcr80.
19	d1u8sa2	Alignment		27.5	5	Fold: Ferredoxin-like Superfamily: ACT-like Family: Glycine cleavage system transcriptional repressor
20	c3ln6A_	Alignment		25.6	15	PDB header: ligase Chain: A: PDB Molecule: glutathione biosynthesis bifunctional protein gshab; PDBTitle: crystal structure of a bifunctional glutathione synthetase from2 streptococcus agalactiae
21	c1a8pA_	Alignment	not modelled	24.7	23	PDB header: oxidoreductase Chain: A: PDB Molecule: nadph:ferredoxin oxidoreductase; PDBTitle: ferredoxin reductase from azotobacter vinelandii
22	c3it5B_	Alignment	not modelled	24.6	36	PDB header: hydrolase Chain: B: PDB Molecule: protease lasa; PDBTitle: crystal structure of the lasa virulence factor from pseudomonas2 aeruginosa
23	d1prt1	Alignment	not modelled	20.3	13	Fold: OB-fold Superfamily: Bacterial enterotoxins Family: Bacterial AB5 toxins, B-subunits
24	c3hwaA_	Alignment	not modelled	19.9	8	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative dna-binding protein; PDBTitle: crystal structure of putative dna-binding protein (yp_299413.1) from2 ralstonia eutropha jmp134 at 1.30 a resolution
25	c3hnaA_	Alignment	not modelled	17.2	13	PDB header: metal binding protein Chain: A: PDB Molecule: putative dna binding protein; PDBTitle: crystal structure of a putative dna binding protein (bt_1116) from2 bacteroides thetaiotaomicron vpi-5482 at 1.50 a resolution
26	c2qw5B_	Alignment	not modelled	16.9	20	PDB header: isomerase Chain: B: PDB Molecule: xylose isomerase-like tim barrel; PDBTitle: crystal structure of a putative sugar phosphate isomerase/epimerase2 (ava4194) from anabaena variabilis atcc 29413 at 1.78 a resolution
27	d1xv2a_	Alignment	not modelled	16.3	33	Fold: AF0104/ALDC/Ptd012-like Superfamily: AF0104/ALDC/Ptd012-like Family: Alpha-acetolactate decarboxylase-like
28	c2z2vA_	Alignment	not modelled	16.0	15	PDB header: oxidoreductase Chain: A: PDB Molecule: hypothetical protein ph1688;

28	c2z2vA	Alignment	not modelled	10.0	13	PDBTitle: crystal structure of l-lysine dehydrogenase from2 hyperthermophilic archaeon pyrococcus horikoshii
29	d2z1ea1	Alignment	not modelled	15.6	8	Fold: Bacillus chorismate mutase-like Superfamily: PurM N-terminal domain-like Family: PurM N-terminal domain-like
30	c2f59B	Alignment	not modelled	15.1	17	PDB header: transferase Chain: B: PDB Molecule: 6,7-dimethyl-8-ribityllumazine synthase 1; PDBTitle: lumazine synthase ribh1 from brucella abortus (gene bruab1_0785,2 swiss-prot entry q57dy1) complexed with inhibitor 5-nitro-6-(d-3 ribitylamino)-2,4(1h,3h) pyrimidinedione
31	d1z2la2	Alignment	not modelled	13.6	8	Fold: Ferredoxin-like Superfamily: Bacterial exopeptidase dimerisation domain Family: Bacterial exopeptidase dimerisation domain
32	c2gu1A	Alignment	not modelled	13.2	19	PDB header: hydrolase Chain: A: PDB Molecule: zinc peptidase; PDBTitle: crystal structure of a zinc containing peptidase from2 vibrio cholerae
33	d1a8pa2	Alignment	not modelled	13.1	23	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Reductases
34	d1ysja2	Alignment	not modelled	12.8	18	Fold: Ferredoxin-like Superfamily: Bacterial exopeptidase dimerisation domain Family: Bacterial exopeptidase dimerisation domain
35	c3r1kA	Alignment	not modelled	12.4	14	PDB header: transferase Chain: A: PDB Molecule: enhanced intracellular survival protein; PDBTitle: crystal structure of acetyltransferase eis from mycobacterium2 tuberculosis h37rv in complex with coa and an acetamide moiety
36	c1bcpH	Alignment	not modelled	11.8	13	PDB header: toxin Chain: H: PDB Molecule: pertussis toxin; PDBTitle: binary complex of pertussis toxin and atp
37	d2h6la1	Alignment	not modelled	11.8	20	Fold: AF0104/ALDC/Ptd012-like Superfamily: AF0104/ALDC/Ptd012-like Family: AF0104-like
38	d1u8sa1	Alignment	not modelled	11.6	8	Fold: Ferredoxin-like Superfamily: ACT-like Family: Glycine cleavage system transcriptional repressor
39	c2dt4A	Alignment	not modelled	11.5	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein ph0802; PDBTitle: crystal structure of pyrococcus horikoshii a plant- and prokaryote-2 conserved (ppc) protein at 1.60 resolution
40	d1d4oa	Alignment	not modelled	11.0	25	Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Transhydrogenase domain III (dIII)
41	c2jy5A	Alignment	not modelled	10.7	13	PDB header: signaling protein Chain: A: PDB Molecule: ubiquilin-1; PDBTitle: nmr structure of ubiquilin 1 uba domain
42	d1jqoa	Alignment	not modelled	10.7	20	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: Phosphoenolpyruvate carboxylase
43	c1jqoA	Alignment	not modelled	10.7	20	PDB header: lyase Chain: A: PDB Molecule: phosphoenolpyruvate carboxylase; PDBTitle: crystal structure of c4-form phosphoenolpyruvate carboxylase from2 maize
44	c1pt9B	Alignment	not modelled	10.4	25	PDB header: oxidoreductase Chain: B: PDB Molecule: nad(p) transhydrogenase, mitochondrial; PDBTitle: crystal structure analysis of the diii component of transhydrogenase2 with a thio-nicotinamide nucleotide analogue
45	d1c41a	Alignment	not modelled	10.2	7	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
46	c2hv2D	Alignment	not modelled	9.8	21	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: hypothetical protein; PDBTitle: crystal structure of conserved protein of unknown function from2 enterococcus faecalis v583 at 2.4 a resolution, probable n-3 acyltransferase
47	c2bruC	Alignment	not modelled	9.8	28	PDB header: oxidoreductase Chain: C: PDB Molecule: nad(p) transhydrogenase subunit beta; PDBTitle: complex of the domain i and domain iii of escherichia coli2 transhydrogenase
48	d1pnoa	Alignment	not modelled	9.6	33	Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Transhydrogenase domain III (dIII)
49	c2pebB	Alignment	not modelled	9.5	18	PDB header: oxidoreductase Chain: B: PDB Molecule: putative dioxygenase; PDBTitle: crystal structure of a putative dioxygenase (npun_f1925) from nostoc2 punctiforme pcc 73102 at 1.46 a resolution
50	d1owxa	Alignment	not modelled	9.4	20	Fold: Ferredoxin-like Superfamily: RNA-binding domain, RBD Family: Canonical RBD
51	c3ixzB	Alignment	not modelled	9.3	13	PDB header: hydrolase Chain: B: PDB Molecule: potassium-transporting atpase subunit beta; PDBTitle: pig gastric h+/k+ -atpase complexed with aluminium fluoride
52	c3mpoD	Alignment	not modelled	9.2	13	PDB header: hydrolase Chain: D: PDB Molecule: predicted hydrolase of the had superfamily; PDBTitle: the crystal structure of a hydrolase from lactobacillus brevis
						PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative peptidase m23;

53	c2hsiB_	Alignment	not modelled	9.2	31	PDBTitle: crystal structure of putative peptidase m23 from2 pseudomonas aeruginosa, new york structural genomics3 consortium
54	d1zpvA1	Alignment	not modelled	8.8	7	Fold: Ferredoxin-like Superfamily: ACT-like Family: SP0238-like
55	c3hZrD_	Alignment	not modelled	8.8	10	PDB header: ligase Chain: D: PDB Molecule: tryptophanyl-trna synthetase; PDBTitle: tryptophanyl-trna synthetase homolog from entamoeba histolytica
56	c3zvK_G_	Alignment	not modelled	8.7	17	PDB header: antitoxin/toxin/dna Chain: G: PDB Molecule: antitoxin of toxin-antitoxin system vapp; PDBTitle: crystal structure of vappbc2 from rickettsia felis bound to2 a dna fragment from their promoter
57	c1u8sB_	Alignment	not modelled	8.5	7	PDB header: transcription Chain: B: PDB Molecule: glycine cleavage system transcriptional PDBTitle: crystal structure of putative glycine cleavage system2 transcriptional repressor
58	c3ke2A_	Alignment	not modelled	8.5	38	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein yp_928783.1; PDBTitle: crystal structure of a duf2131 family protein (sama_2911) from2 shewanella amazonensis sb2b at 2.50 a resolution
59	d1nqua_	Alignment	not modelled	8.3	11	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
60	c3fPK_B_	Alignment	not modelled	8.2	4	PDB header: flavoprotein, oxidoreductase Chain: B: PDB Molecule: ferredoxin-nadp reductase; PDBTitle: crystal structure of ferredoxin-nadp reductase from salmonella2 typhimurium
61	d1jcb2_	Alignment	not modelled	8.2	22	Fold: Putative DNA-binding domain Superfamily: Putative DNA-binding domain Family: Domains B1 and B5 of PheRS-beta, PheT
62	d1ejba_	Alignment	not modelled	8.2	14	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
63	c2btwA_	Alignment	not modelled	8.0	22	PDB header: transferase Chain: A: PDB Molecule: alr0975 protein; PDBTitle: crystal structure of alr0975
64	c3mz2A_	Alignment	not modelled	7.7	19	PDB header: hydrolase Chain: A: PDB Molecule: glycerophosphoryl diester phosphodiesterase; PDBTitle: crystal structure of a glycerophosphoryl diester phosphodiesterase2 (bdi_3922) from parabacteroides distasonis atcc 8503 at 1.55 a3 resolution
65	d1di0a_	Alignment	not modelled	7.0	11	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
66	d1rvv1_	Alignment	not modelled	7.0	11	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
67	d1e4ia_	Alignment	not modelled	7.0	14	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Family 1 of glycosyl hydrolase
68	c2kjwA_	Alignment	not modelled	6.9	17	PDB header: ribosomal protein Chain: A: PDB Molecule: 30s ribosomal protein s6; PDBTitle: solution structure and backbone dynamics of the permutant2 p54-55
69	d2hq9a1	Alignment	not modelled	6.8	23	Fold: Split barrel-like Superfamily: FMN-binding split barrel Family: PNP-oxidase like
70	d1aq0a_	Alignment	not modelled	6.7	21	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-glycanases
71	c3bzjA_	Alignment	not modelled	6.7	9	PDB header: hydrolase Chain: A: PDB Molecule: uv endonuclease; PDBTitle: uvde k229l
72	c2vxeA_	Alignment	not modelled	6.6	21	PDB header: transcription Chain: A: PDB Molecule: cg10686-pa; PDBTitle: solution structure of the lsm domain of drosophila2 melanogaster tral (trailer hitch)
73	d2hv2a2	Alignment	not modelled	6.5	21	Fold: Acyl-CoA N-acyltransferases (Nat) Superfamily: Acyl-CoA N-acyltransferases (Nat) Family: EF1021-like
74	c2eq7C_	Alignment	not modelled	6.4	14	PDB header: oxidoreductase Chain: C: PDB Molecule: 2-oxoglutarate dehydrogenase e2 component; PDBTitle: crystal structure of lipoamide dehydrogenase from thermus thermophilus2 hb8 with psbdo
75	d1prtc1	Alignment	not modelled	6.4	20	Fold: OB-fold Superfamily: Bacterial enterotoxins Family: Bacterial AB5 toxins, B-subunits
76	d2cyua1	Alignment	not modelled	6.3	10	Fold: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Superfamily: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex Family: Peripheral subunit-binding domain of 2-oxo acid dehydrogenase complex
77	d1m5wa_	Alignment	not modelled	6.3	17	Fold: TIM beta/alpha-barrel Superfamily: Pyridoxine 5'-phosphate synthase Family: Pyridoxine 5'-phosphate synthase
						PDB header: transferase Chain: H: PDB Molecule: 6,7-dimethyl-8-ribityllumazine synthase

78	c2obxH_	Alignment	not modelled	6.1	19	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
79	c2nyiB_	Alignment	not modelled	6.0	16	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: unknown protein; PDBTitle: crystal structure of an unknown protein from galdieria2 sulphuraria
80	c3b8eB_	Alignment	not modelled	6.0	17	PDB header: hydrolase/transport protein Chain: B: PDB Molecule: sodium/potassium-transporting atpase subunit PDBTitle: crystal structure of the sodium-potassium pump
81	c3gk0H_	Alignment	not modelled	5.9	12	PDB header: transferase Chain: H: PDB Molecule: pyridoxine 5'-phosphate synthase; PDBTitle: crystal structure of pyridoxal phosphate biosynthetic2 protein from burkholderia pseudomallei
82	c3tr3A_	Alignment	not modelled	5.9	5	PDB header: unknown function Chain: A: PDB Molecule: bola; PDBTitle: structure of a bola protein homologue from coxiella burnetii
83	c3dcdgF_	Alignment	not modelled	5.8	63	PDB header: ligase/viral protein Chain: F: PDB Molecule: virion infectivity factor; PDBTitle: crystal structure of the hiv vif bc-box in complex with human elonginb2 and elonginc
84	c3n7zD_	Alignment	not modelled	5.7	10	PDB header: transferase Chain: D: PDB Molecule: acetyltransferase, gnat family; PDBTitle: crystal structure of acetyltransferase from bacillus anthracis
85	c2k6xA_	Alignment	not modelled	5.5	12	PDB header: transcription Chain: A: PDB Molecule: rna polymerase sigma factor rpod; PDBTitle: autoregulation of a group 1 bacterial sigma factor involves2 the formation of a region 1.1- induced compacted structure
86	d2cyga1	Alignment	not modelled	5.4	10	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-glycanases
87	d1gvha3	Alignment	not modelled	5.4	16	Fold: Ferredoxin reductase-like, C-terminal NADP-linked domain Superfamily: Ferredoxin reductase-like, C-terminal NADP-linked domain Family: Flavohemoglobin, C-terminal domain
88	c2k4vA_	Alignment	not modelled	5.4	20	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein pa1076; PDBTitle: solution structure of uncharacterized protein pa1076 from2 pseudomonas aeruginosa. northeast structural genomics3 consortium (nesg) target pat3, ontario center for4 structural proteomics target pa1076 .
89	d1t3ba2	Alignment	not modelled	5.4	7	Fold: Cystatin-like Superfamily: DsbC/DsbG N-terminal domain-like Family: DsbC/DsbG N-terminal domain-like
90	d2bu3a1	Alignment	not modelled	5.4	22	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Phytochelatin synthase
91	c2ig6B_	Alignment	not modelled	5.3	14	PDB header: oxidoreductase Chain: B: PDB Molecule: nimc/nima family protein; PDBTitle: crystal structure of a nimc/nima family protein (ca_c2569) from2 clostridium acetobutylicum at 1.80 a resolution
92	d1wzca1	Alignment	not modelled	5.3	23	Fold: HAD-like Superfamily: HAD-like Family: Predicted hydrolases Cof
93	d2i00a2	Alignment	not modelled	5.3	14	Fold: Acyl-CoA N-acyltransferases (Nat) Superfamily: Acyl-CoA N-acyltransferases (Nat) Family: EF1021-like
94	d1ug6a_	Alignment	not modelled	5.2	8	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Family 1 of glycosyl hydrolase
95	d1wmxB_	Alignment	not modelled	5.2	50	Fold: Galactose-binding domain-like Superfamily: Galactose-binding domain-like Family: Family 30 carbohydrate binding module, CBM30 (PKD repeat)
96	d2c0ra1	Alignment	not modelled	5.2	15	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
97	d1leeja2	Alignment	not modelled	5.2	19	Fold: Cystatin-like Superfamily: DsbC/DsbG N-terminal domain-like Family: DsbC/DsbG N-terminal domain-like
98	c1xs3A_	Alignment	not modelled	5.1	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein xc975; PDBTitle: solution structure analysis of the xc975 protein
99	d1jqna_	Alignment	not modelled	5.1	13	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: Phosphoenolpyruvate carboxylase