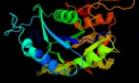
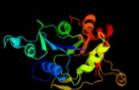
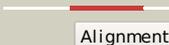
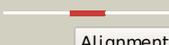
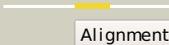
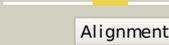
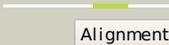
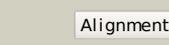
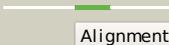
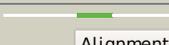


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P62517
Date	Thu Jan 5 12:07:33 GMT 2012
Unique Job ID	0f6459174bbf11ce

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2z86D_	 Alignment		99.7	19	PDB header: transferase Chain: D: PDB Molecule: chondroitin synthase; PDBTitle: crystal structure of chondroitin polymerase from2 escherichia coli strain k4 (k4cp) complexed with udp-gluc4 and udp
2	c3f1yC_	 Alignment		99.7	13	PDB header: transferase Chain: C: PDB Molecule: mannosyl-3-phosphoglycerate synthase; PDBTitle: mannosyl-3-phosphoglycerate synthase from rubrobacter xylanophilus
3	c1xhbA_	 Alignment		99.6	13	PDB header: transferase Chain: A: PDB Molecule: polypeptide n-acetylgalactosaminyltransferase 1; PDBTitle: the crystal structure of udp-galnac: polypeptide alpha-n-2 acetylgalactosaminyltransferase-t1
4	c2ffuA_	 Alignment		99.6	16	PDB header: transferase Chain: A: PDB Molecule: polypeptide n-acetylgalactosaminyltransferase 2; PDBTitle: crystal structure of human ppgalnact-2 complexed with udp2 and ea2
5	c3ckvA_	 Alignment		99.6	13	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of a mycobacterial protein
6	c2d7iA_	 Alignment		99.6	14	PDB header: transferase Chain: A: PDB Molecule: polypeptide n-acetylgalactosaminyltransferase 10; PDBTitle: crsytal structure of pp-galnac-t10 with udp, galnac and mn2+
7	d1xhba2	 Alignment		99.5	14	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Polypeptide N-acetylgalactosaminyltransferase 1, N-terminal domain
8	c3bcvA_	 Alignment		99.5	8	PDB header: transferase Chain: A: PDB Molecule: putative glycosyltransferase protein; PDBTitle: crystal structure of a putative glycosyltransferase from bacteroides2 fragilis
9	d1qg8a_	 Alignment		99.4	13	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Spore coat polysaccharide of biosynthesis protein SpsA
10	c1omxB_	 Alignment		99.1	16	PDB header: transferase Chain: B: PDB Molecule: alpha-1,4-n-acetylhexosaminyltransferase ext12; PDBTitle: crystal structure of mouse alpha-1,4-n-2 acetylhexosaminyltransferase (ext12)
11	d1omza_	 Alignment		99.1	16	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Exostosin

12	c2qgiA_	 Alignment		98.4	13	PDB header: transferase Chain: A: PDB Molecule: atp synthase subunits region orf 6; PDBTitle: the udp complex structure of the sixth gene product of the f1-atpase2 operon of rhodobacter blasticus
13	d2bo4a1	 Alignment		98.2	14	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: MGS-like
14	d1fo8a_	 Alignment		96.8	17	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: N-acetylglucosaminyltransferase I
15	c2wvmA_	 Alignment		96.3	24	PDB header: transferase Chain: A: PDB Molecule: mannosyl-3-phosphoglycerate synthase; PDBTitle: h309a mutant of mannosyl-3-phosphoglycerate synthase from2 thermus thermophilus hb27 in complex with3 gdp-alpha-d-mannose and mg(ii)
16	c2zu8A_	 Alignment		95.7	23	PDB header: transferase Chain: A: PDB Molecule: mannosyl-3-phosphoglycerate synthase; PDBTitle: crystal structure of mannosyl-3-phosphoglycerate synthase2 from pyrococcus horikoshii
17	d1pzta_	 Alignment		95.7	18	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: beta 1,4 galactosyltransferase (b4GalT1)
18	d1ga8a_	 Alignment		89.1	17	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Galactosyltransferase LgtC
19	c1ga8A_	 Alignment		89.1	17	PDB header: transferase Chain: A: PDB Molecule: galactosyl transferase lgtc; PDBTitle: crystal structure of galactosyltransferase lgtc in complex2 with donor and acceptor sugar analogs.
20	c3tztB_	 Alignment		83.4	15	PDB header: transferase Chain: B: PDB Molecule: glycosyl transferase family 8; PDBTitle: the structure of a protein in glycosyl transferase family 8 from2 anaerococcus prevotii.
21	d1vh3a_	 Alignment	not modelled	76.5	11	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Cytidylytransferase
22	c3ednB_	 Alignment	not modelled	70.4	24	PDB header: biosynthetic protein Chain: B: PDB Molecule: phenazine biosynthesis protein, phzf family; PDBTitle: crystal structure of the bacillus anthracis phenazine2 biosynthesis protein, phzf family
23	c1u0kA_	 Alignment	not modelled	67.7	19	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: gene product pa4716; PDBTitle: the structure of a predicted epimerase pa4716 from pseudomonas2 aeruginosa
24	c3lw6A_	 Alignment	not modelled	65.0	17	PDB header: transferase Chain: A: PDB Molecule: beta-4-galactosyltransferase 7; PDBTitle: crystal structure of drosophila beta1,4-galactosyltransferase-7
25	d1eyra_	 Alignment	not modelled	58.4	19	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Cytidylytransferase
26	d1i52a_	 Alignment	not modelled	57.0	14	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Cytidylytransferase
27	d1l12a_	 Alignment	not modelled	55.5	15	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Glycogenin
28	d1qy9a1	 Alignment	not modelled	54.9	21	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PhzC/PhzF-like

29	dlw77a1	Alignment	not modelled	54.1	8	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Cytidylytransferase
30	divgwa_	Alignment	not modelled	52.8	13	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Cytidylytransferase
31	c1ulwA_	Alignment	not modelled	52.4	19	PDB header: isomerase, lyase Chain: A: PDB Molecule: phenazine biosynthesis protein phzf; PDBTitle: structure and function of phenazine-biosynthesis protein phzf from2 pseudomonas fluorescens 2-79
32	clzcyA_	Alignment	not modelled	52.1	15	PDB header: transferase Chain: A: PDB Molecule: glycogenin-1; PDBTitle: apo form of a mutant of glycogenin in which asp159 is replaced by ser
33	dls7ja_	Alignment	not modelled	49.5	14	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PhzC/PhzF-like
34	clqy9B_	Alignment	not modelled	45.2	21	PDB header: unknown function Chain: B: PDB Molecule: hypothetical protein ydde; PDBTitle: crystal structure of e. coli se-met protein ydde
35	dia79a2	Alignment	not modelled	44.8	35	Fold: MutS N-terminal domain-like Superfamily: tRNA-intron endonuclease N-terminal domain-like Family: tRNA-intron endonuclease N-terminal domain-like
36	c2wawA_	Alignment	not modelled	36.4	13	PDB header: unknown function Chain: A: PDB Molecule: moba relate protein; PDBTitle: crystal structure of mycobacterium tuberculosis rv0371c2 homolog from mycobacterium sp. strain jc1
37	c2gkjA_	Alignment	not modelled	32.8	23	PDB header: isomerase Chain: A: PDB Molecule: diaminopimelate epimerase; PDBTitle: crystal structure of diaminopimelate epimerase in complex2 with an irreversible inhibitor dl-azidap
38	c3okrA_	Alignment	not modelled	28.3	13	PDB header: transferase Chain: A: PDB Molecule: 2-c-methyl-d-erythritol 4-phosphate cytidylyltransferase; PDBTitle: structure of mtb apo 2-c-methyl-d-erythritol 4-phosphate2 cytidylyltransferase (ispd)
39	dlx4pa1	Alignment	not modelled	25.4	36	Fold: Surp module (SWAP domain) Superfamily: Surp module (SWAP domain) Family: Surp module (SWAP domain)
40	clzctB_	Alignment	not modelled	23.9	18	PDB header: transferase Chain: B: PDB Molecule: glycogenin-1; PDBTitle: structure of glycogenin truncated at residue 270 in a2 complex with udp
41	c3d5nB_	Alignment	not modelled	21.1	18	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: q97w15_sulso; PDBTitle: crystal structure of the q97w15_sulso protein from2 sulfobolus solfataricus. nesg target ssr125.
42	c1ym5A_	Alignment	not modelled	18.2	17	PDB header: oxidoreductase Chain: A: PDB Molecule: hypothetical 32.6 kda protein in dap2-slt2 PDBTitle: crystal structure of yhi9, the yeast member of the2 phenazine biosynthesis phzf enzyme superfamily.
43	dlxkpc1	Alignment	not modelled	16.8	36	Fold: Secretion chaperone-like Superfamily: Type III secretory system chaperone-like Family: Type III secretory system chaperone
44	c2px7A_	Alignment	not modelled	16.1	10	PDB header: transferase Chain: A: PDB Molecule: 2-c-methyl-d-erythritol 4-phosphate PDBTitle: crystal structure of 2-c-methyl-d-erythritol 4-phosphate2 cytidylyltransferase from thermus thermophilus hb8
45	c2vshB_	Alignment	not modelled	16.0	11	PDB header: transferase Chain: B: PDB Molecule: 2-c-methyl-d-erythritol 4-phosphate PDBTitle: synthesis of cdp-activated ribitol for teichoic acid2 precursors in streptococcus pneumoniae
46	dlvyva2	Alignment	not modelled	14.7	39	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
47	dlk3ra2	Alignment	not modelled	14.6	12	Fold: alpha/beta knot Superfamily: alpha/beta knot Family: Hypothetical protein MTH1 (MT0001), dimerisation domain
48	dlvyua2	Alignment	not modelled	14.4	39	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
49	dluxoa_	Alignment	not modelled	13.7	19	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: YdeN-like
50	dlt0hb_	Alignment	not modelled	13.7	39	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
51	dlvpaa_	Alignment	not modelled	13.6	12	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Cytidylytransferase
52	dlt3la2	Alignment	not modelled	13.4	39	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
53	c2rauA_	Alignment	not modelled	13.4	12	PDB header: hydrolase Chain: A: PDB Molecule: putative esterase; PDBTitle: crystal structure of a putative lipase (np_343859.1) from sulfobolus2 solfataricus at 1.85 a resolution
54	clsneB_	Alignment	not modelled	13.3	53	PDB header: de novo protein Chain: B: PDB Molecule: tetrameric beta-beta-alpha mini-protein; PDBTitle: an oligomeric domain-swapped beta-beta-alpha mini-protein

55	c1sneA	Alignment	not modelled	13.3	53	PDB header: de novo protein Chain: A: PDB Molecule: tetrameric beta-beta-alpha mini-protein; PDBTitle: an oligomeric domain-swapped beta-beta-alpha mini-protein
56	c1k3rA	Alignment	not modelled	13.3	14	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: conserved protein mt0001; PDBTitle: crystal structure of the methyltransferase with a knot from2 methanobacterium thermoautotrophicum
57	c3okrC	Alignment	not modelled	13.1	15	PDB header: transferase Chain: C: PDB Molecule: 2-c-methyl-d-erythritol 4-phosphate cytidyltransferase; PDBTitle: structure of mtb apo 2-c-methyl-d-erythritol 4-phosphate2 cytidyltransferase (ispd)
58	c2o35A	Alignment	not modelled	12.7	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein duf1244; PDBTitle: protein of unknown function (duf1244) from sinorhizobium meliloti
59	d2o35a1	Alignment	not modelled	12.7	21	Fold: SMc04008-like Superfamily: SMc04008-like Family: SMc04008-like
60	c2qkwA	Alignment	not modelled	12.7	12	PDB header: transferase Chain: A: PDB Molecule: avirulence protein; PDBTitle: structural basis for activation of plant immunity by2 bacterial effector protein avrpto
61	d2qkwa1	Alignment	not modelled	12.7	12	Fold: immunoglobulin/albumin-binding domain-like Superfamily: Avirulence protein AvrPto Family: Avirulence protein AvrPto
62	d1lnla	Alignment	not modelled	12.3	8	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Spermidine synthase
63	c1cn3F	Alignment	not modelled	12.3	33	PDB header: viral protein Chain: F: PDB Molecule: fragment of coat protein vp2; PDBTitle: interaction of polyomavirus internal protein vp2 with major2 capsid protein vp1 and implications for participation of3 vp2 in viral entry
64	c2zviB	Alignment	not modelled	12.2	19	PDB header: isomerase Chain: B: PDB Molecule: 2,3-diketo-5-methylthiopentyl-1-phosphate PDBTitle: crystal structure of 2,3-diketo-5-methylthiopentyl-1-2 phosphate enolase from bacillus subtilis
65	c1okgA	Alignment	not modelled	11.6	22	PDB header: transferase Chain: A: PDB Molecule: possible 3-mercaptopyruvate sulfurtransferase; PDBTitle: 3-mercaptopyruvate sulfurtransferase from leishmania major
66	c1qz7B	Alignment	not modelled	11.5	43	PDB header: cell adhesion Chain: B: PDB Molecule: axin; PDBTitle: beta-catenin binding domain of axin in complex with beta-2 catenin
67	d1pvma3	Alignment	not modelled	11.3	29	Fold: Rubredoxin-like Superfamily: Hypothetical protein Ta0289 C-terminal domain Family: Hypothetical protein Ta0289 C-terminal domain
68	c3fybA	Alignment	not modelled	11.3	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein of unknown function (duf1244); PDBTitle: crystal structure of a protein of unknown function (duf1244) from2 alcanivorax borkumensis
69	c3rjoA	Alignment	not modelled	11.2	13	PDB header: hydrolase Chain: A: PDB Molecule: endoplasmic reticulum aminopeptidase 1; PDBTitle: crystal structure of erap1 peptide binding domain
70	c3bwbA	Alignment	not modelled	10.9	14	PDB header: transferase Chain: A: PDB Molecule: spermidine synthase; PDBTitle: crystal structure of the apo form of spermidine synthase from2 trypanosoma cruzi at 2.5 a resolution
71	c2vxhF	Alignment	not modelled	10.9	14	PDB header: oxidoreductase Chain: F: PDB Molecule: chlorite dismutase; PDBTitle: the crystal structure of chlorite dismutase: a detox enzyme2 producing molecular oxygen
72	c2qjwA	Alignment	not modelled	10.6	12	PDB header: hydrolase Chain: A: PDB Molecule: uncharacterized protein xcc1541; PDBTitle: crystal structure of a putative hydrolase of the alpha/beta2 superfamily (xcc1541) from xanthomonas campestris pv. campestris at3 1.35 a resolution
73	d1omha	Alignment	not modelled	10.6	7	Fold: Origin of replication-binding domain, RBD-like Superfamily: Origin of replication-binding domain, RBD-like Family: Relaxase domain
74	c1vbka	Alignment	not modelled	10.3	20	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein ph1313; PDBTitle: crystal structure of ph1313 from pyrococcus horikoshii ot3
75	c1jb0X	Alignment	not modelled	10.3	26	PDB header: photosynthesis Chain: X: PDB Molecule: photosystem i subunit psax; PDBTitle: crystal structure of photosystem i: a photosynthetic reaction center2 and core antenna system from cyanobacteria
76	d1jb0x	Alignment	not modelled	10.3	26	Fold: Single transmembrane helix Superfamily: Subunit Psax of photosystem I reaction centre Family: Subunit Psax of photosystem I reaction centre
77	d2qgra1	Alignment	not modelled	10.3	27	Fold: SH3-like barrel Superfamily: Tudor/PWWP/MBT Family: Tudor domain
78	d1a2za	Alignment	not modelled	10.2	18	Fold: Phosphorylase/hydrolase-like Superfamily: Pyrrolidone carboxyl peptidase (pyroglutamate aminopeptidase) Family: Pyrrolidone carboxyl peptidase (pyroglutamate aminopeptidase)
79	d2pbla1	Alignment	not modelled	9.8	13	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases

						Family: Carboxylesterase
80	c2j0bA_	Alignment	not modelled	9.8	17	PDB header: transferase Chain: A: PDB Molecule: beta-1,3-n-acetylglucosaminyltransferase manic fringe; PDBTitle: structure of the catalytic domain of mouse manic fringe in2 complex with udp and manganese
81	d1f2si_	Alignment	not modelled	9.7	36	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Plant inhibitors of proteinases and amylases Family: Plant inhibitors of proteinases and amylases
82	c1f2sl_	Alignment	not modelled	9.7	36	PDB header: hydrolase/hydrolase inhibitor Chain: I: PDB Molecule: trypsin inhibitor a; PDBTitle: crystal structure of the complex formed between bovine beta-2 trypsin and mcti-a, a trypsin inhibitor of squash family3 at 1.8 a resolution
83	c3tqdA_	Alignment	not modelled	9.7	18	PDB header: transferase Chain: A: PDB Molecule: 3-deoxy-manno-octulosonate cytidyltransferase; PDBTitle: structure of the 3-deoxy-d-manno-octulosonate cytidyltransferase2 (kdsb) from coxiella burnetii
84	c3nn4C_	Alignment	not modelled	9.6	11	PDB header: oxidoreductase Chain: C: PDB Molecule: chlorite dismutase; PDBTitle: structure of chlorite dismutase from candidatus nitrospira defluviu2 r173k mutant
85	c3orjA_	Alignment	not modelled	9.6	17	PDB header: sugar binding protein Chain: A: PDB Molecule: sugar-binding protein; PDBTitle: crystal structure of a sugar-binding protein (bacova_04391) from2 bacteroides ovatus at 2.16 a resolution
86	c3k6gA_	Alignment	not modelled	9.6	23	PDB header: protein binding Chain: A: PDB Molecule: telomeric repeat-binding factor 2-interacting protein 1; PDBTitle: crystal structure of rap1 and trf2 complex
87	d1uoya_	Alignment	not modelled	9.3	45	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Bubble protein Family: Bubble protein
88	d1t0tv_	Alignment	not modelled	9.3	21	Fold: Ferredoxin-like Superfamily: Dimeric alpha+beta barrel Family: Chlorite dismutase-like
89	c3l3bA_	Alignment	not modelled	9.2	16	PDB header: biosynthetic protein Chain: A: PDB Molecule: es1 family protein; PDBTitle: crystal structure of isopenoid biosynthesis protein with2 amidotransferase-like domain from ehrlichia chaffeensis at 1.90a3 resolution
90	c3dnmA_	Alignment	not modelled	9.2	18	PDB header: hydrolase Chain: A: PDB Molecule: esterase/lipase; PDBTitle: crystal structure hormone-sensitive lipase from a2 metagenome library
91	d1c2ya_	Alignment	not modelled	9.1	21	Fold: Lumazine synthase Superfamily: Lumazine synthase Family: Lumazine synthase
92	c2jobA_	Alignment	not modelled	9.1	21	PDB header: lipid binding protein Chain: A: PDB Molecule: antilipopolsaccharide factor; PDBTitle: solution structure of an antilipopolsaccharide factor from2 shrimp and its possible lipid a binding site
93	c2otnB_	Alignment	not modelled	9.0	25	PDB header: isomerase Chain: B: PDB Molecule: diaminopimelate epimerase; PDBTitle: crystal structure of the catalytically active form of diaminopimelate2 epimerase from bacillus anthracis
94	d1nxia_	Alignment	not modelled	9.0	42	Fold: Ferredoxin-like Superfamily: Hypothetical protein VC0424 Family: Hypothetical protein VC0424
95	c2qh5B_	Alignment	not modelled	9.0	5	PDB header: isomerase Chain: B: PDB Molecule: mannose-6-phosphate isomerase; PDBTitle: crystal structure of mannose-6-phosphate isomerase from helicobacter2 pylori
96	d1ecfa1	Alignment	not modelled	9.0	14	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
97	d1q0ra_	Alignment	not modelled	8.9	21	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Aclacinomycin methylesterase RdmC
98	c3pcqX_	Alignment	not modelled	8.9	26	PDB header: photosynthesis Chain: X: PDB Molecule: photosystem i 4.8k protein; PDBTitle: femtosecond x-ray protein nanocrystallography
99	c3giuA_	Alignment	not modelled	8.6	16	PDB header: hydrolase Chain: A: PDB Molecule: pyrrolidone-carboxylate peptidase; PDBTitle: 1.25 angstrom crystal structure of pyrrolidone-carboxylate peptidase2 (pcp) from staphylococcus aureus