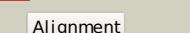
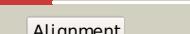
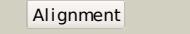
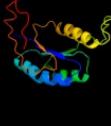
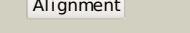
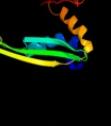
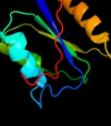
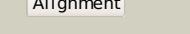
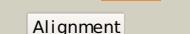


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P0AFA5
Date	Thu Jan 5 11:25:44 GMT 2012
Unique Job ID	4bf3303cb26f4f03

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2d28c1	Alignment		100.0	18	Fold: Alpha-lytic protease prodomain-like Superfamily: EspE N-terminal domain-like Family: GSII protein E N-terminal domain-like
2	c3f1yC_	Alignment		100.0	14	PDB header: transferase Chain: C: PDB Molecule: mannosyl-3-phosphoglycerate synthase; PDBTitle: mannosyl-3-phosphoglycerate synthase from rubrobacter xylanophilus
3	c1xhbA_	Alignment		99.9	12	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	d1xhba2	Alignment		99.9	14	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Poly peptide N-acetyl galactosaminyltransferase 1, N-terminal domain
5	c2z86D_	Alignment		99.9	20	PDB header: transferase Chain: D: PDB Molecule: chondroitin synthase; PDBTitle: crystal structure of chondroitin polymerase from escherichia coli strain k4 (k4cp) complexed with udp-glucua3 and udp
6	c2d7iA_	Alignment		99.9	14	PDB header: transferase Chain: A: PDB Molecule: polypeptide n-acetylgalactosaminyltransferase 10; PDBTitle: crystal structure of pp-galnac-t10 with udp, galnac and mn2+
7	c2ffuA_	Alignment		99.9	12	PDB header: transferase Chain: A: PDB Molecule: polypeptide n-acetylgalactosaminyltransferase 2; PDBTitle: crystal structure of human ppgalnact-2 complexed with udp2 and ea2
8	c3ckvA_	Alignment		99.9	15	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of a mycobacterial protein
9	c3bcvA_	Alignment		99.9	11	PDB header: transferase Chain: A: PDB Molecule: putative glycosyltransferase protein; PDBTitle: crystal structure of a putative glycosyltransferase from bacteroides2 fragilis
10	d1gq8a_	Alignment		99.9	8	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Spore coat polysaccharide biosynthesis protein SpsA
11	c1omxB_	Alignment		99.8	11	PDB header: transferase Chain: B: PDB Molecule: alpha-1,4-n-acetylhexosaminyltransferase extl2; PDBTitle: crystal structure of mouse alpha-1,4-n-2 acetylhexosaminyltransferase (extl2)

12	d1omza_			99.8	12	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Exostosin
13	c2qgiA_			99.6	11	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
14	d2bo4a1			99.3	17	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: MGS-like
15	d1pzta_			98.6	18	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: beta 1,4 galactosyltransferase (b4GalT1)
16	c3lw6A_			98.2	16	PDB header: transferase Chain: A: PDB Molecule: beta-4-galactosyltransferase 7; PDBTitle: crystal structure of drosophila beta1,4-galactosyltransferase-7
17	d1fo8a_			97.8	8	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: N-acetylglucosaminyltransferase I
18	d1p9ra_			97.0	20	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
19	c2wvmA_			95.1	21	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)
20	c2zu8A_			94.1	13	PDB header: transferase Chain: A: PDB Molecule: mannosyl-3-phosphoglycerate synthase; PDBTitle: crystal structure of mannosyl-3-phosphoglycerate synthase2 from pyrococcus horikoshii
21	c2bh1Y_		not modelled	94.0	15	PDB header: transport protein Chain: Y: PDB Molecule: general secretion pathway protein e,; PDBTitle: x-ray structure of the general secretion pathway complex of2 the n-terminal domain of epse and the cytosolic domain of3 epsl of vibrio cholerae
22	d2bh1x1		not modelled	94.0	15	Fold: Alpha-lytic protease prodomain-like Superfamily: EspE N-terminal domain-like Family: GSPII protein E N-terminal domain-like
23	c2ch4A_			89.1	10	PDB header: transferase/chemotaxis Chain: A: PDB Molecule: chemotaxis protein chea; PDBTitle: complex between bacterial chemotaxis histidine kinase chea2 domains p4 and p5 and receptor-adaptor protein chew
24	c2oaq1_		not modelled	83.3	7	PDB header: hydrolase Chain: 1: PDB Molecule: type ii secretion system protein; PDBTitle: crystal structure of the archaeal secretion atpase gspe in complex2 with phosphate
25	d1ugpa_			68.3	18	Fold: Nitrile hydratase alpha chain Superfamily: Nitrile hydratase alpha chain Family: Nitrile hydratase alpha chain
26	c1jyIC_		not modelled	65.6	14	PDB header: transferase Chain: C: PDB Molecule: ctp:phosphocholine cytidylytransferase; PDBTitle: catalytic mechanism of ctp:phosphocholine2 cytidylytransferase from streptococcus pneumoniae (licc)

27	c3qyhG		Alignment	not modelled	63.9	19	PDB header: lyase Chain: G; PDB Molecule: co-type nitrile hydratase alpha subunit; PDBTitle: crystal structure of co-type nitrile hydratase beta-h71l from pseudomonas putida.
28	c2dd4H		Alignment	not modelled	58.1	14	PDB header: hydrolase Chain: H; PDB Molecule: thiocyanate hydrolase beta subunit; PDBTitle: thiocyanate hydrolase (scnase) from thiobacillus thioparus2 recombinant apo-enzyme
29	d1ugpb		Alignment	not modelled	56.3	11	Fold: SH3-like barrel Superfamily: Electron transport accessory proteins Family: Nitrile hydratase beta chain
30	c2gamA		Alignment	not modelled	56.2	12	PDB header: transferase Chain: A; PDB Molecule: beta-1,6-n-acetylglucosaminyltransferase; PDBTitle: x-ray crystal structure of murine leukocyte-type core 2 b1,2 6-n-acetylglucosaminyltransferase (c2gnt-I) in complex3 with galb1,3galnac
31	c2qh5B		Alignment	not modelled	46.6	10	PDB header: isomerase Chain: B; PDB Molecule: mannose-6-phosphate isomerase; PDBTitle: crystal structure of mannose-6-phosphate isomerase from helicobacter2 pylori
32	c2j0bA		Alignment	not modelled	44.9	22	PDB header: transferase Chain: A; PDB Molecule: beta-1,3-n-acetylglucosaminyltransferase manc fringe; PDBTitle: structure of the catalytic domain of mouse manc fringe in2 complex with udp and manganese
33	d1v29b		Alignment	not modelled	43.6	10	Fold: SH3-like barrel Superfamily: Electron transport accessory proteins Family: Nitrile hydratase beta chain
34	d1v29a		Alignment	not modelled	42.2	14	Fold: Nitrile hydratase alpha chain Superfamily: Nitrile hydratase alpha chain Family: Nitrile hydratase alpha chain
35	c2dxbR		Alignment	not modelled	39.3	8	PDB header: hydrolase Chain: R; PDB Molecule: thiocyanate hydrolase subunit gamma; PDBTitle: recombinant thiocyanate hydrolase comprising partially-modified cobalt2 centers
36	c2xmhB		Alignment	not modelled	39.0	14	PDB header: transferase Chain: B; PDB Molecule: ctp-inositol-1-phosphate cytidylyltransferase; PDBTitle: the x-ray structure of ctp:inositol-1-phosphate2 cytidylyltransferase from archaeoglobus fulgidus
37	c2xzmd		Alignment	not modelled	37.0	16	PDB header: ribosome Chain: D; PDB Molecule: ribosomal protein s4 containing protein; PDBTitle: crystal structure of the eukaryotic 40s ribosomal2 subunit in complex with initiation factor 1. this file3 contains the 40s subunit and initiation factor for4 molecule 1
38	d2qdyb1		Alignment	not modelled	36.3	14	Fold: SH3-like barrel Superfamily: Electron transport accessory proteins Family: Nitrile hydratase beta chain
39	d1fxoa		Alignment	not modelled	35.6	10	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: glucose-1-phosphate thymidyltransferase
40	d1jyka		Alignment	not modelled	34.8	13	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Cytidyltransferase
41	c3kvhA		Alignment	not modelled	30.9	22	PDB header: rna binding protein Chain: A; PDB Molecule: protein syndesmos; PDBTitle: crystal structure of human protein syndesmos (nudt16-like protein)
42	d1fuoa		Alignment	not modelled	30.0	17	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
43	c1w57A		Alignment	not modelled	30.0	16	PDB header: transferase Chain: A; PDB Molecule: ispd/ispf bifunctional enzyme; PDBTitle: structure of the bifunctional ispdf from campylobacter2 jejuni containing zn
44	c3jvvA		Alignment	not modelled	28.7	9	PDB header: ab binding protein Chain: A; PDB Molecule: twitching mobility protein; PDBTitle: crystal structure of p. aeruginosa pilt with bound amp-pcp
45	d1vh3a		Alignment	not modelled	28.4	11	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Cytidyltransferase
46	d1v82a		Alignment	not modelled	27.1	13	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: 1,3-glucuronyltransferase
47	d1kyqa2		Alignment	not modelled	26.6	18	Fold: Siroheme synthase middle domains-like Superfamily: Siroheme synthase middle domains-like Family: Siroheme synthase middle domains-like
48	c3brkX		Alignment	not modelled	26.1	13	PDB header: transferase Chain: X; PDB Molecule: glucose-1-phosphate adenyllyltransferase; PDBTitle: crystal structure of adp-glucose pyrophosphorylase from2 agrobacterium tumefaciens
49	d1lm5a		Alignment	not modelled	25.4	10	Fold: beta-hairpin-alpha-hairpin repeat Superfamily: Plakin repeat Family: Plakin repeat
50	d2p12a1		Alignment	not modelled	25.0	14	Fold: FomD barrel-like Superfamily: FomD-like Family: FomD-like
51	c3fesB		Alignment	not modelled	24.1	10	PDB header: atp binding protein Chain: B; PDB Molecule: atp-dependent clp endopeptidase; PDBTitle: crystal structure of the atp-dependent clp protease clpc from2 clostridium difficile PDB header: transferase

52	c2x5sB	Alignment	not modelled	23.6	11	Chain: B: PDB Molecule: mannose-1-phosphate guanylyltransferase; PDBTitle: crystal structure of t. maritima gdp-mannose2 pyrophosphorylase in apo state.
53	d1lvwa	Alignment	not modelled	23.2	16	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: glucose-1-phosphate thymidyltransferase
54	d1jswa	Alignment	not modelled	23.2	24	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
55	d1j3ua	Alignment	not modelled	21.7	23	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
56	d2qdya1	Alignment	not modelled	21.6	11	Fold: Nitrile hydratase alpha chain Superfamily: Nitrile hydratase alpha chain Family: Nitrile hydratase alpha chain
57	d2oqoa1	Alignment	not modelled	21.3	22	Fold: Lysozyme-like Superfamily: Lysozyme-like Family: PBP transglycosylase domain-like
58	c2d0jd	Alignment	not modelled	20.7	14	PDB header: transferase Chain: D: PDB Molecule: galactosylgalactosylxylosylprotein 3-beta- PDBTitle: crystal structure of human glcats apo form
59	c3mwmA	Alignment	not modelled	19.0	20	PDB header: transcription Chain: A: PDB Molecule: putative metal uptake regulation protein; PDBTitle: graded expression of zinc-responsive genes through two regulatory2 zinc-binding sites in zur
60	c1chmA	Alignment	not modelled	19.0	21	PDB header: creatinase Chain: A: PDB Molecule: creatine amidinohydrolase; PDBTitle: enzymatic mechanism of creatine amidinohydrolase as deduced2 from crystal structures
61	d1zq1c3	Alignment	not modelled	16.8	15	Fold: Glutamine synthetase/guanido kinase Superfamily: Glutamine synthetase/guanido kinase Family: GatB/GatE catalytic domain-like
62	d1dgna	Alignment	not modelled	15.8	22	Fold: DEATH domain Superfamily: DEATH domain Family: Caspase recruitment domain, CARD
63	c2nz7A	Alignment	not modelled	15.7	15	PDB header: apoptosis Chain: A: PDB Molecule: caspase recruitment domain-containing protein 4; PDBTitle: crystal structure analysis of caspase-recruitment domain2 (card) of nod1
64	d2jera1	Alignment	not modelled	15.7	16	Fold: Pentein, beta/alpha-propeller Superfamily: Pentein Family: Porphyromonas-type peptidylarginine deiminase
65	c2jerG	Alignment	not modelled	15.3	16	PDB header: hydrolase Chain: G: PDB Molecule: agmatine deiminase; PDBTitle: agmatine deiminase of enterococcus faecalis catalyzing its2 reaction.
66	c3bjrA	Alignment	not modelled	15.2	5	PDB header: hydrolase Chain: A: PDB Molecule: putative carboxylesterase; PDBTitle: crystal structure of a putative carboxylesterase (Ip_1002) from2 lactobacillus plantarum wcf51 at 2.09 a resolution
67	d1yp2a2	Alignment	not modelled	15.0	13	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: glucose-1-phosphate thymidyltransferase
68	c1hsjA	Alignment	not modelled	15.0	13	PDB header: transcription/sugar binding protein Chain: A: PDB Molecule: fusion protein consisting of staphylococcus PDBTitle: sarr mbp fusion structure
69	d1z05a1	Alignment	not modelled	14.8	9	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: ROK associated domain
70	c1yfmA	Alignment	not modelled	14.7	28	PDB header: lyase Chain: A: PDB Molecule: fumarase; PDBTitle: recombinant yeast fumarase
71	d1yfma	Alignment	not modelled	14.7	28	Fold: L-aspartase-like Superfamily: L-aspartase-like Family: L-aspartase/fumarase
72	c3qz9D	Alignment	not modelled	14.4	20	PDB header: lyase Chain: D: PDB Molecule: co-type nitrile hydratase beta subunit; PDBTitle: crystal structure of co-type nitrile hydratase beta-y215f from2 pseudomonas putida.
73	d1u20a1	Alignment	not modelled	14.0	18	Fold: Nudix Superfamily: Nudix Family: MutT-like
74	c1legpA	Alignment	not modelled	13.8	24	PDB header: proteinase inhibitor Chain: A: PDB Molecule: eglin-c; PDBTitle: proteinase inhibitor eglin c with hydrolysed reactive center
75	d2ewoa1	Alignment	not modelled	13.7	9	Fold: Pentein, beta/alpha-propeller Superfamily: Pentein Family: Porphyromonas-type peptidylarginine deiminase
76	c3hzsA	Alignment	not modelled	13.6	14	PDB header: transferase Chain: A: PDB Molecule: monofunctional glycosyltransferase; PDBTitle: s. aureus monofunctional glycosyltransferase (mtga)in complex with2 moenomycin
77	d1xkna	Alignment	not modelled	13.3	9	Fold: Pentein, beta/alpha-propeller Superfamily: Pentein Family: Porphyromonas-type peptidylarginine deiminase
78	clex1A	Alignment	not modelled	13.3	18	PDB header: hydrolase Chain: A: PDB Molecule: protein (beta-d-glucan exohydrolase isoenzyme exo1);

					PDBTitle: beta-d-glucan exohydrolase from barley
79	d3crda_	Alignment	not modelled	12.8	Fold: DEATH domain Superfamily: DEATH domain Family: Caspase recruitment domain, CARD
80	d2f2ab2	Alignment	not modelled	12.4	Fold: Glutamine synthetase/guanido kinase Superfamily: Glutamine synthetase/guanido kinase Family: GatB/GatE catalytic domain-like
81	c2jciaA_	Alignment	not modelled	12.4	PDB header: drug-binding protein Chain: A: PDB Molecule: penicillin-binding protein 1b; PDBTitle: structural insights into the catalytic mechanism and the2 role of streptococcus pneumoniae pbp1b
82	d1zbra1	Alignment	not modelled	12.1	Fold: Pentein, beta/alpha-propeller Superfamily: Pentein Family: Porphyromonas-type peptidylarginine deiminase
83	c2wawA_	Alignment	not modelled	11.9	PDB header: unknown function Chain: A: PDB Molecule: moba relate protein; PDBTitle: crystal structure of mycobacterium tuberculosis rv0371c2 homolog from mycobacterium sp. strain jc1
84	d2h80a1	Alignment	not modelled	11.6	Fold: SAM domain-like Superfamily: SAM/Pointed domain Family: Variant SAM domain
85	c1s1hO_	Alignment	not modelled	11.5	PDB header: ribosome Chain: O: PDB Molecule: 40s ribosomal protein s13; PDBTitle: structure of the ribosomal 80s-eef2-sordarin complex from2 yeast obtained by docking atomic models for rna and protein3 components into a 11.7 a cryo-em map. this file, 1s1h,4 contains 40s subunit. the 60s ribosomal subunit is in file5 1s1.
86	d2oi6a2	Alignment	not modelled	11.0	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: UDP-glucose pyrophosphorylase
87	d1iina_	Alignment	not modelled	10.9	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: glucose-1-phosphate thymidyltransferase
88	c2xnsC_	Alignment	not modelled	10.8	PDB header: hydrolase/peptide Chain: C: PDB Molecule: regulator of g-protein signaling 14; PDBTitle: crystal structure of human g alpha i1 bound to a designed helical2 peptide derived from the goloco motif of rgs14
89	c2d7cD_	Alignment	not modelled	10.0	PDB header: protein transport Chain: D: PDB Molecule: rab11 family-interacting protein 3; PDBTitle: crystal structure of human rab11 in complex with fip3 rab-2 binding domain
90	d2pnwa1	Alignment	not modelled	9.7	Fold: Double psi beta-barrel Superfamily: Barwin-like endoglucanases Family: MLTA-like
91	c2gszE_	Alignment	not modelled	9.2	PDB header: protein transport Chain: E: PDB Molecule: twitching motility protein pilt; PDBTitle: structure of a. aeolicus pilt with 6 monomers per2 asymmetric unit
92	d1mc3a_	Alignment	not modelled	9.0	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: glucose-1-phosphate thymidyltransferase
93	c2o03A_	Alignment	not modelled	8.7	PDB header: gene regulation Chain: A: PDB Molecule: probable zinc uptake regulation protein furb; PDBTitle: crystal structure of furb from m. tuberculosis- a zinc uptake2 regulator
94	d1mzba_	Alignment	not modelled	8.7	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: FUR-like
95	d1g5ta_	Alignment	not modelled	8.5	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
96	c3udiA_	Alignment	not modelled	8.5	PDB header: penicillin-binding protein/antibiotic Chain: A: PDB Molecule: penicillin-binding protein 1a; PDBTitle: crystal structure of acinetobacter baumannii pbp1a in complex with2 penicillin g
97	d1vkpa_	Alignment	not modelled	8.5	Fold: Pentein, beta/alpha-propeller Superfamily: Pentein Family: Porphyromonas-type peptidylarginine deiminase
98	c3hxkB_	Alignment	not modelled	8.5	PDB header: hydrolase Chain: B: PDB Molecule: sugar hydrolase; PDBTitle: crystal structure of a sugar hydrolase (yeeb) from2 lactococcus lactis, northeast structural genomics3 consortium target kr108
99	c1yshE_	Alignment	not modelled	8.4	PDB header: structural protein/rna Chain: E: PDB Molecule: 40s ribosomal protein s13; PDBTitle: localization and dynamic behavior of ribosomal protein I30e