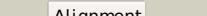
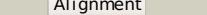
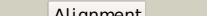
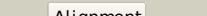
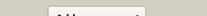
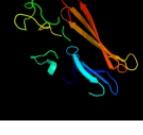


Phyre²

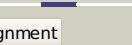
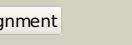
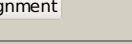
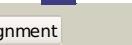
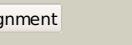
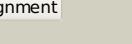
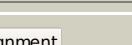
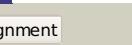
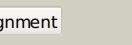
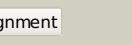
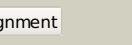
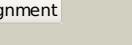
Email	i.a.kelley@imperial.ac.uk
Description	P25714
Date	Thu Jan 5 11:42:16 GMT 2012
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Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3blcB_			100.0	94	PDB header: chaperone,protein transport Chain: B; PDB Molecule: inner membrane protein oxaa; PDBTitle: crystal structure of the periplasmic domain of the escherichia coli2 yidc
2	c3bs6B_			100.0	98	PDB header: membrane protein, protein transport Chain: B; PDB Molecule: inner membrane protein oxaa; PDBTitle: 1.8 angstrom crystal structure of the periplasmic domain of2 the membrane insertase yidc
3	d1z45a1			97.7	9	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Aldose 1-epimerase (matarotase)
4	c1ygaA_			97.4	12	PDB header: isomerase Chain: A; PDB Molecule: hypothetical 37.9 kda protein in bio3-hxt17 PDBTitle: crystal structure of saccharomyces cerevisiae yn9a protein,2 new york structural genomics consortium
5	c2htbB_			97.3	8	PDB header: isomerase Chain: B; PDB Molecule: putative enzyme related to aldose 1-epimerase; PDBTitle: crystal structure of a putative mutarotase (yead) from2 salmonella typhimurium in monoclinic form
6	d1lura_			97.3	13	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Aldose 1-epimerase (matarotase)
7	c3dcda_			97.0	9	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: galactose mutarotase related enzyme; PDBTitle: x-ray structure of the galactose mutarotase related enzyme q5fkd7 from2 lactobacillus acidophilus at the resolution 1.9a. northeast3 structural genomics consortium target lar33.
8	c3nreb_			97.0	13	PDB header: isomerase Chain: B; PDB Molecule: aldose 1-epimerase; PDBTitle: crystal structure of a putative aldose 1-epimerase (b2544) from2 escherichia coli k12 at 1.59 a resolution
9	c3q1nA_			97.0	21	PDB header: isomerase Chain: A; PDB Molecule: galactose mutarotase related enzyme; PDBTitle: crystal structure of a galactose mutarotase-like protein (lse1_2598)2 from lactobacillus casei atcc 334 at 1.61 a resolution
10	c3mwxA_			96.9	13	PDB header: isomerase Chain: A; PDB Molecule: aldose 1-epimerase; PDBTitle: crystal structure of a putative galactose mutarotase (bsu18360) from2 bacillus subtilis at 1.45 a resolution
11	c1z45A_			96.6	10	PDB header: isomerase Chain: A; PDB Molecule: gal10 bifunctional protein; PDBTitle: crystal structure of the gal10 fusion protein galactose2 mutarotase/udp-galactose 4-epimerase from saccharomyces3 cerevisiae complexed with nad, udp-glucose, and galactose

12	c3imhB_			96.5	12	PDB header: isomerase Chain: B: PDB Molecule: galactose-1-epimerase; PDBTitle: crystal structure of galactose 1-epimerase from lactobacillus2 acidophilus ncfm
13	d1nsza_			96.4	13	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Aldose 1-epimerase (mutarotase)
14	d1so0a_			96.4	13	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Aldose 1-epimerase (mutarotase)
15	c2cisA_			95.7	16	PDB header: isomerase Chain: A: PDB Molecule: hexose-6-phosphate mutarotase; PDBTitle: structure-based functional annotation: yeast ymr099c codes2 for a d-hexose-6-phosphate mutarotase. complex with3 tagatose-6-phosphate
16	c3k25B_			94.1	10	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: slr1438 protein; PDBTitle: crystal structure of slr1438 protein from synechocystis sp. pcc 6803,2 northeast structural genomics consortium target sgr112
17	d3bvua2			72.7	10	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: alpha-mannosidase, C-terminal domain
18	c2yfnA_			70.9	8	PDB header: hydrolase Chain: A: PDB Molecule: alpha-galactosidase-sucrose kinase agask; PDBTitle: galactosidase domain of alpha-galactosidase-sucrose kinase,2 agask
19	c3os7D_			69.6	13	PDB header: isomerase Chain: D: PDB Molecule: galactose mutarotase-like protein; PDBTitle: crystal structure of a galactose mutarotase-like protein (ca_c0697)2 from clostridium acetobutylicum at 1.80 a resolution
20	c3os7B_			69.6	13	PDB header: isomerase Chain: B: PDB Molecule: galactose mutarotase-like protein; PDBTitle: crystal structure of a galactose mutarotase-like protein (ca_c0697)2 from clostridium acetobutylicum at 1.80 a resolution
21	d1jova_		not modelled	66.3	7	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Hypothetical protein HI1317
22	c1o7dD_		not modelled	53.8	16	PDB header: hydrolase Chain: D: PDB Molecule: lysosomal alpha-mannosidase; PDBTitle: the structure of the bovine lysosomal a-mannosidase2 suggests a novel mechanism for low ph activation
23	d1jz8a4		not modelled	52.5	8	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: beta-Galactosidase, domain 5
24	d1x9la_		not modelled	51.7	16	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: DR1885-like metal-binding protein Family: DR1885-like metal-binding protein
25	c3ty1B_		not modelled	50.1	10	PDB header: isomerase Chain: B: PDB Molecule: hypothetical aldose 1-epimerase; PDBTitle: crystal structure of a hypothetical aldose 1-epimerase (kpn_04629)2 from klebsiella pneumoniae subsp. pneumoniae mgh 78578 at 1.90 a3 resolution
26	c3mi6A_		not modelled	46.0	10	PDB header: hydrolase Chain: A: PDB Molecule: alpha-galactosidase; PDBTitle: crystal structure of the alpha-galactosidase from lactobacillus2 brevis, northeast structural genomics consortium target lbr11.
27	c2xn1B_		not modelled	42.6	11	PDB header: hydrolase Chain: B: PDB Molecule: alpha-galactosidase; PDBTitle: structure of alpha-galactosidase from lactobacillus acidophilus ncfm2 with tris
28	c3mv14_		not modelled	38.2	6	PDB header: hydrolase Chain: 4: PDB Molecule: beta-galactosidase; PDBTitle: e.coli (lacZ) beta-galactosidase (r599a) in complex with

					guanidinium
29	c1jz6C	Alignment	not modelled	31.9	PDB header: hydrolase Chain: C: PDB Molecule: beta-galactosidase; PDBTitle: e. coli (lacZ) beta-galactosidase in complex with galacto-2 tetrazole
30	d1k1xa2	Alignment	not modelled	26.0	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: 4-alpha-glucantransferase, C-terminal domain
31	d1e42a1	Alignment	not modelled	24.6	Fold: Immunoglobulin-like beta-sandwich Superfamily: Clathrin adaptor appendage domain Family: Alpha-adaptin ear subdomain-like
32	c1z65A	Alignment	not modelled	24.1	PDB header: unknown function Chain: A: PDB Molecule: prion-like protein doppel; PDBTitle: mouse doppel 1-30 peptide
33	c2rmrA	Alignment	not modelled	20.3	PDB header: transcription Chain: A: PDB Molecule: paired amphipathic helix protein sin3a; PDBTitle: solution structure of msin3a pah1 domain
34	c2ow7A	Alignment	not modelled	18.4	PDB header: hydrolase Chain: A: PDB Molecule: alpha-mannosidase 2; PDBTitle: golgi alpha-mannosidase ii complex with (1r,6s,7r,8s)-1-2 thioniabicyclo[4.3.0]nonan-7,8-diol chloride
35	c4a1qB	Alignment	not modelled	18.4	PDB header: viral protein Chain: B: PDB Molecule: orf e73; PDBTitle: solution structure of e73 protein from sulfolobus spindle-2 shaped virus ragged hills, a hyperthermophilic3 crenarchaeal virus from yellowstone national park
36	d1lva3	Alignment	not modelled	15.7	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: C-terminal fragment of elongation factor SelB
37	c3rgbA	Alignment	not modelled	13.7	PDB header: oxidoreductase Chain: A: PDB Molecule: methane monooxygenase subunit b2; PDBTitle: crystal structure of particulate methane monooxygenase from2 methylococcus capsulatus (bath)
38	c1e42A	Alignment	not modelled	13.6	PDB header: endocytosis Chain: A: PDB Molecule: ap-2 complex subunit beta; PDBTitle: beta2-adaptin appendage domain, from clathrin adaptor ap2
39	c2kmuA	Alignment	not modelled	13.0	PDB header: hydrolase Chain: A: PDB Molecule: atp-dependent dna helicase q4; PDBTitle: recql4 amino-terminal domain
40	c3r45C	Alignment	not modelled	12.5	PDB header: nuclear protein Chain: C: PDB Molecule: holliday junction recognition protein; PDBTitle: structure of a cent-a-histone h4 heterodimer in complex with chaperone2 hijurp
41	c1v7wA	Alignment	not modelled	12.1	PDB header: transferase Chain: A: PDB Molecule: chitobiase phosphorylase; PDBTitle: crystal structure of vibrio proteolyticus chitobiase phosphorylase in2 complex with glcnac
42	c1w8xP	Alignment	not modelled	11.3	PDB header: virus Chain: P: PDB Molecule: protein p16; PDBTitle: structural analysis of prd1
43	c2y69Q	Alignment	not modelled	11.1	PDB header: electron transport Chain: Q: PDB Molecule: cytochrome c oxidase subunit 4 isoform 1; PDBTitle: bovine heart cytochrome c oxidase re-refined with molecular2 oxygen
44	c2f1eA	Alignment	not modelled	10.9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein apag; PDBTitle: solution structure of apag protein
45	d1qbaa2	Alignment	not modelled	10.3	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Bacterial chitobiase, n-terminal domain
46	d1xvsA	Alignment	not modelled	10.0	Fold: Immunoglobulin-like beta-sandwich Superfamily: ApaG-like Family: ApaG-like
47	d1xq4a	Alignment	not modelled	9.9	Fold: Immunoglobulin-like beta-sandwich Superfamily: ApaG-like Family: ApaG-like
48	d1v54d	Alignment	not modelled	9.2	Fold: Single transmembrane helix Superfamily: Mitochondrial cytochrome c oxidase subunit IV Family: Mitochondrial cytochrome c oxidase subunit IV
49	c1k1yA	Alignment	not modelled	9.1	PDB header: transferase Chain: A: PDB Molecule: 4-alpha-glucantransferase; PDBTitle: crystal structure of thermococcus litoralis 4-alpha-glucantransferase2 complexed with arabinose
50	c2jo8B	Alignment	not modelled	9.0	PDB header: transferase Chain: B: PDB Molecule: serine/threonine-protein kinase 4; PDBTitle: solution structure of c-terminal domain of human mammalian2 sterile 20-like kinase 1 (mst1)
51	d1v7wa2	Alignment	not modelled	8.9	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Glycosyltransferase family 36 N-terminal domain
52	c2avuF	Alignment	not modelled	8.7	PDB header: transcription activator Chain: F: PDB Molecule: flagellar transcriptional activator flhc; PDBTitle: structure of the escherichia coli flhd complex, a22 prokaryotic heteromeric regulator of transcription
53	d2avue1	Alignment	not modelled	8.7	Fold: FlhC-like Superfamily: FlhC-like Family: FlhC-like
54	c3oq9C	Alignment	not modelled	8.6	PDB header: apoptosis Chain: C: PDB Molecule: tumor necrosis factor receptor superfamily member 6; PDBTitle: structure of the fas/fadd death domain assembly

55	c3hfdA_		Alignment	not modelled	8.6	19	PDB header: chaperone, protein transport Chain: A: PDB Molecule: nucleosome assembly protein 1; PDBTitle: nucleosome assembly protein 1 from plasmodium knowlesi
56	d2e50a1		Alignment	not modelled	8.5	16	Fold: NAP-like Superfamily: NAP-like Family: NAP-like
57	d1tzaa_		Alignment	not modelled	8.3	12	Fold: Immunoglobulin-like beta-sandwich Superfamily: ApaG-like Family: ApaG-like
58	d1s5qb_		Alignment	not modelled	8.2	15	Fold: PAH2 domain Superfamily: PAH2 domain Family: PAH2 domain
59	d2f05a1		Alignment	not modelled	7.5	18	Fold: PAH2 domain Superfamily: PAH2 domain Family: PAH2 domain
60	d1hn0a3		Alignment	not modelled	7.4	17	Fold: Hyaluronate lyase-like, C-terminal domain Superfamily: Hyaluronate lyase-like, C-terminal domain Family: Hyaluronate lyase-like, C-terminal domain
61	d1g43a_		Alignment	not modelled	7.2	13	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family III
62	c2ayuA_		Alignment	not modelled	6.9	13	PDB header: chaperone Chain: A: PDB Molecule: nucleosome assembly protein; PDBTitle: the structure of nucleosome assembly protein suggests a mechanism for2 histone binding and shuttling
63	d2ayua1		Alignment	not modelled	6.9	13	Fold: NAP-like Superfamily: NAP-like Family: NAP-like
64	c2rddB_		Alignment	not modelled	6.9	23	PDB header: membrane protein/transport protein Chain: B: PDB Molecule: upf0092 membrane protein yajc; PDBTitle: x-ray crystal structure of acrb in complex with a novel2 transmembrane helix.
65	d1cwva4		Alignment	not modelled	6.7	12	Fold: Immunoglobulin-like beta-sandwich Superfamily: Invasin/intimin cell-adhesion fragments Family: Invasin/intimin cell-adhesion fragments
66	c2kfeA_		Alignment	not modelled	6.5	22	PDB header: antimicrobial protein Chain: A: PDB Molecule: meucin-24; PDBTitle: solution structure of meucin-24
67	c2do5A_		Alignment	not modelled	6.4	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: splicing factor 3b subunit 2; PDBTitle: solution structure of the sap domain of human splicing2 factor 3b subunit 2
68	c3fs3A_		Alignment	not modelled	6.4	19	PDB header: structural genomics Chain: A: PDB Molecule: nucleosome assembly protein 1, putative; PDBTitle: crystal structure of malaria parasite nucleosome assembly protein2 (nap)
69	c2jtvA_		Alignment	not modelled	6.3	50	PDB header: structural genomics Chain: A: PDB Molecule: protein of unknown function; PDBTitle: solution structure of protein rpa3401, northeast structural genomics2 consortium target rpt7, ontario center for structural proteomics3 target rp3384
70	c2of5A_		Alignment	not modelled	6.2	14	PDB header: apoptosis Chain: A: PDB Molecule: death domain-containing protein cradd; PDBTitle: oligomeric death domain complex
71	d1w1wa_		Alignment	not modelled	5.9	11	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: ABC transporter ATPase domain-like
72	c1wsuA_		Alignment	not modelled	5.7	10	PDB header: translation/rna Chain: A: PDB Molecule: selenocysteine-specific elongation factor; PDBTitle: c-terminal domain of elongation factor selb complexed with2 seics rna
73	d1oira_		Alignment	not modelled	5.7	35	Fold: AraD/HMP-PK domain-like Superfamily: AraD/HMP-PK domain-like Family: AraD-like aldolase/epimerase
74	c1htyA_		Alignment	not modelled	5.6	11	PDB header: hydrolase Chain: A: PDB Molecule: alpha-mannosidase ii; PDBTitle: golgi alpha-mannosidase ii
75	d1flca2		Alignment	not modelled	5.6	21	Fold: Flavodoxin-like Superfamily: SGNH hydrolase Family: Esterase domain of haemagglutinin-esterase-fusion glycoprotein HEF1
76	c3obaA_		Alignment	not modelled	5.5	9	PDB header: hydrolase Chain: A: PDB Molecule: beta-galactosidase; PDBTitle: structure of the beta-galactosidase from kluyveromyces lactis
77	c3h9pB_		Alignment	not modelled	5.5	33	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative triphosphoribosyl-dephosphocoa synthase; PDBTitle: crystal structure of putative triphosphoribosyl-dephospho-coa synthase2 from archaeoglobus fulgidus
78	d1fada_		Alignment	not modelled	5.5	12	Fold: DEATH domain Superfamily: DEATH domain Family: DEATH domain, DD
79	c3cazA_		Alignment	not modelled	5.4	13	PDB header: signaling protein Chain: A: PDB Molecule: bar protein; PDBTitle: crystal structure of a bar protein from galdieria sulphuraria
80	d1ryka_		Alignment	not modelled	5.1	19	Fold: SAM domain-like Superfamily: Hypothetical protein Yjb

