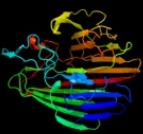
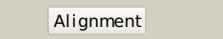
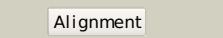
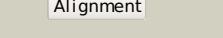
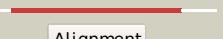


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P76584
Date	Thu Jan 5 12:24:51 GMT 2012
Unique Job ID	c23559840d2daf52

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3nreB_			100.0	99	PDB header: isomerase Chain: B; PDB Molecule: aldose 1-epimerase; PDBTitle: crystal structure of a putative aldose 1-epimerase (b2544) from escherichia coli k12 at 1.59 a resolution
2	c3os7B_			100.0	19	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
3	c3os7D_			100.0	19	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
4	c1ygaA_			100.0	15	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	d1z45a1			100.0	17	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Aldose 1-epimerase (mutarotate)
6	c3mwxA_			100.0	22	PDB header: isomerase Chain: A; PDB Molecule: aldose 1-epimerase; PDBTitle: crystal structure of a putative galactose mutarotase (bsu18360) from bacillus subtilis at 1.45 a resolution
7	c3imhB_			100.0	16	PDB header: isomerase Chain: B; PDB Molecule: galactose-1-epimerase; PDBTitle: crystal structure of galactose 1-epimerase from lactobacillus2 acidophilus ncfm
8	c3dcda_			100.0	17	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.
9	c3q1nA_			100.0	17	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	d1so0a_			100.0	20	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Aldose 1-epimerase (mutarotate)
11	d1lura_			100.0	15	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Aldose 1-epimerase (mutarotate)

12	d1nsza			100.0	16	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Aldose 1-epimerase (mutarotate)
13	c3k25B			100.0	19	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: slr1438 protein; PDBTitle: crystal structure of slr1438 protein from <i>synechocystis</i> sp. pcc 6803,2 northeast structural genomics consortium target sgr112
14	c1z45A			100.0	17	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 <i>saccharomyces3 cerevisiae</i> complexed with nad, udp-glucose, and galactose
15	c2htbB			100.0	15	PDB header: isomerase Chain: B: PDB Molecule: putative enzyme related to aldose 1-epimerase; PDBTitle: crystal structure of a putative mutarotase (yead) from <i>salmonella typhimurium</i> in monoclinic form
16	c2cisA			100.0	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
17	d1jova			100.0	20	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Hypothetical protein HI1317
18	c3ty1B			100.0	13	PDB header: isomerase Chain: B: PDB Molecule: hypothetical aldose 1-epimerase; PDBTitle: crystal structure of a hypothetical aldose 1-epimerase (kpn_04629)2 from <i>klebsiella pneumoniae</i> subsp. <i>pneumoniae</i> mgh78578 at 1.90 a3 resolution
19	c3bs6B			97.1	16	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
20	c3blcB			96.4	16	PDB header: chaperone,protein transport Chain: B: PDB Molecule: inner membrane protein oxaa; PDBTitle: crystal structure of the periplasmic domain of the <i>escherichia coli</i> 2 yidc
21	d1k1xa2		not modelled	89.8	12	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: 4-alpha-glucanotransferase, C-terminal domain
22	c2xn1B		not modelled	85.6	9	PDB header: hydrolase Chain: B: PDB Molecule: alpha-galactosidase; PDBTitle: structure of alpha-galactosidase from <i>lactobacillus acidophilus</i> ncfm2 with tris
23	c2cqta		not modelled	80.8	17	PDB header: transferase Chain: A: PDB Molecule: celllobiose phosphorylase; PDBTitle: crystal structure of <i>cellvibrio gilvus</i> celllobiose phosphorylase2 crystallized from sodium/potassium phosphate
24	c3rgbA		not modelled	74.6	17	PDB header: oxidoreductase Chain: A: PDB Molecule: methane monooxygenase subunit b2; PDBTitle: crystal structure of particulate methane monooxygenase from2 <i>methyllycoccus capsulatus</i> (bath)
25	c1yewl		not modelled	74.6	17	PDB header: oxidoreductase, membrane protein Chain: I: PDB Molecule: particulate methane monooxygenase, b subunit; PDBTitle: crystal structure of particulate methane monooxygenase
26	c2yfnA		not modelled	72.9	10	PDB header: hydrolase Chain: A: PDB Molecule: alpha-galactosidase-sucrose kinase agask; PDBTitle: galactosidase domain of alpha-galactosidase-sucrose kinase,2 agask
27	d1ejxb		not modelled	72.8	23	Fold: beta-clip Superfamily: Urease, beta-subunit Family: Urease, beta-subunit
28	d4ubpb		not modelled	68.5	23	Fold: beta-clip Superfamily: Urease, beta-subunit Family: Urease, beta-subunit

29	c3mi6A_		Alignment	not modelled	66.9	15	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.
30	c3rfrl_		Alignment	not modelled	65.4	17	PDB header: oxidoreductase Chain: I: PDB Molecule: pmob; PDBTitle: crystal structure of particulate methane monooxygenase (pmmo) from 2 methylocystis sp. strain m
31	d1jz8a4		Alignment	not modelled	61.3	13	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: beta-Galactosidase, domain 5
32	d1e9yal		Alignment	not modelled	60.0	19	Fold: beta-clip Superfamily: Urease, beta-subunit Family: Urease, beta-subunit
33	c3qgaD_		Alignment	not modelled	57.7	32	PDB header: hydrolase Chain: D: PDB Molecule: fusion of urease beta and gamma subunits; PDBTitle: 3.0 a model of iron containing urease urea2b2 from helicobacter2 mustelae
34	c1v7wA_		Alignment	not modelled	56.9	9	PDB header: transferase Chain: A: PDB Molecule: chitobiase phosphorylase; PDBTitle: crystal structure of vibrio proteolyticus chitobiase phosphorylase in2 complex with glcnac
35	d1v7wa2		Alignment	not modelled	54.8	8	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Glycosyltransferase family 36 N-terminal domain
36	c1e9za_		Alignment	not modelled	50.2	19	PDB header: hydrolase Chain: A: PDB Molecule: urease subunit alpha; PDBTitle: crystal structure of helicobacter pylori urease
37	c3isyA_		Alignment	not modelled	45.5	15	PDB header: protein binding Chain: A: PDB Molecule: intracellular proteinase inhibitor; PDBTitle: crystal structure of an intracellular proteinase inhibitor (ipi_2_bsu1130) from bacillus subtilis at 2.61 a resolution
38	c2kl8A_		Alignment	not modelled	40.2	13	PDB header: de novo protein Chain: A: PDB Molecule: or15; PDBTitle: solution nmr structure of de novo designed ferredoxin-like2 fold protein, northeast structural genomics consortium3 target or15
39	c3ndyG_		Alignment	not modelled	40.1	19	PDB header: hydrolase Chain: G: PDB Molecule: endoglucanase d; PDBTitle: the structure of the catalytic and carbohydrate binding domain of2 endoglucanase d from clostridium cellulovorans
40	c1k1yA_		Alignment	not modelled	36.9	10	PDB header: transferase Chain: A: PDB Molecule: 4-alpha-glucanotransferase; PDBTitle: crystal structure of thermococcus litoralis 4-alpha-glucanotransferase2 complexed with acarbose
41	c3qbtH_		Alignment	not modelled	33.4	22	PDB header: protein transport/hydrolase Chain: H: PDB Molecule: inositol polyphosphate 5-phosphatase ocr1-1; PDBTitle: crystal structure of ocr1 540-678 in complex with rab8a:gppnph
42	c3bgaB_		Alignment	not modelled	21.6	12	PDB header: hydrolase Chain: B: PDB Molecule: beta-galactosidase; PDBTitle: crystal structure of beta-galactosidase from bacteroides2 thetaiotaomicron vpi-5482
43	d2vzsa2		Alignment	not modelled	20.9	37	Fold: Immunoglobulin-like beta-sandwich Superfamily: beta-Galactosidase/glucuronidase domain Family: beta-Galactosidase/glucuronidase domain
44	c3obaA_		Alignment	not modelled	18.6	15	PDB header: hydrolase Chain: A: PDB Molecule: beta-galactosidase; PDBTitle: structure of the beta-galactosidase from kluyveromyces lactis
45	d1w8oa1		Alignment	not modelled	18.0	27	Fold: Immunoglobulin-like beta-sandwich Superfamily: E set domains Family: E-set domains of sugar-utilizing enzymes
46	c2x3bB_		Alignment	not modelled	12.2	27	PDB header: hydrolase Chain: B: PDB Molecule: toxic extracellular endopeptidase; PDBTitle: asap1 inactive mutant e294a, an extracellular toxic zinc2 metalloendopeptidase
47	d1f2ri_		Alignment	not modelled	12.2	33	Fold: beta-Grasp (ubiquitin-like) Superfamily: CAD & PB1 domains Family: CAD domain
48	d2exna1		Alignment	not modelled	10.8	12	Fold: MOSC N-terminal domain-like Superfamily: MOSC N-terminal domain-like Family: MOSC N-terminal domain-like
49	d1c9fa_		Alignment	not modelled	10.7	28	Fold: beta-Grasp (ubiquitin-like) Superfamily: CAD & PB1 domains Family: CAD domain
50	c2zf9D_		Alignment	not modelled	10.4	31	PDB header: structural protein Chain: D: PDB Molecule: scae cell-surface anchored scaffoldin protein; PDBTitle: crystal structure of a type iii cohesin module from the cellulosomal2 scae cell-surface anchoring scaffoldin of ruminococcus flavefaciens
51	c2p28A_		Alignment	not modelled	9.9	25	PDB header: cell adhesion Chain: A: PDB Molecule: integrin beta-2; PDBTitle: structure of the phe2 and phe3 fragments of the integrin beta2 subunit
52	c2x41A_		Alignment	not modelled	9.1	21	PDB header: hydrolase Chain: A: PDB Molecule: beta-glucosidase; PDBTitle: structure of beta-glucosidase 3b from thermotoga neapolitana2 in complex with glucose
53	c2kutA_		Alignment	not modelled	8.4	37	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution structure of gmr58a from geobacter metallireducens.2 northeast structural genomics consortium target

						gmr58a
54	d1ibxa	Alignment	not modelled	8.3	24	Fold: beta-Grasp (ubiquitin-like) Superfamily: CAD & PB1 domains Family: CAD domain
55	d1wn7a1	Alignment	not modelled	8.2	11	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: DnaQ-like 3'-5' exonuclease
56	c3qfgA	Alignment	not modelled	8.2	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: structure of a putative lipoprotein from staphylococcus aureus subsp.2 aureus ntc 8325
57	d1nkga3	Alignment	not modelled	7.9	24	Fold: Supersandwich Superfamily: Galactose mutarotase-like Family: Rhamnogalacturonase B, Rhgb, N-terminal domain
58	d1s58a	Alignment	not modelled	7.8	20	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: ssDNA viruses Family: Parvoviridae-like VP
59	c3nttA	Alignment	not modelled	7.6	28	PDB header: virus Chain: A: PDB Molecule: capsid protein; PDBTitle: structural insights of adeno-associated virus 5. a gene therapy vector2 for cystic fibrosis
60	c3cfuA	Alignment	not modelled	7.6	17	PDB header: lipoprotein Chain: A: PDB Molecule: uncharacterized lipoprotein yjha; PDBTitle: crystal structure of the yjha protein from bacillus2 subtilis. northeast structural genomics consortium target3 sr562
61	d2je8a2	Alignment	not modelled	7.4	17	Fold: Immunoglobulin-like beta-sandwich Superfamily: beta-Galactosidase/glucuronidase domain Family: beta-Galactosidase/glucuronidase domain
62	d1mspA	Alignment	not modelled	7.3	30	Fold: Immunoglobulin-like beta-sandwich Superfamily: PapD-like Family: MSP-like
63	d1ny721	Alignment	not modelled	7.2	9	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Comoviridae-like VP
64	d1jv2a2	Alignment	not modelled	7.1	19	Fold: Immunoglobulin-like beta-sandwich Superfamily: Integrin domains Family: Integrin domains
65	c3ac0B	Alignment	not modelled	7.1	22	PDB header: hydrolase Chain: B: PDB Molecule: beta-glucosidase i; PDBTitle: crystal structure of beta-glucosidase from kluyveromyces marxianus in2 complex with glucose
66	d1oelal	Alignment	not modelled	6.9	17	Fold: Cupredoxin-like Superfamily: Cupredoxins Family: Multidomain cupredoxins
67	c1ibxB	Alignment	not modelled	6.6	29	PDB header: hydrolase/hydrolase inhibitor Chain: B: PDB Molecule: chimera of igg binding protein g and dna PDBTitle: nmr structure of dff40 and dff45 n-terminal domain complex
68	d1ibxb	Alignment	not modelled	6.6	29	Fold: beta-Grasp (ubiquitin-like) Superfamily: CAD & PB1 domains Family: CAD domain
69	d1pgl21	Alignment	not modelled	6.3	15	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Comoviridae-like VP
70	c3cdzA	Alignment	not modelled	6.1	31	PDB header: blood clotting Chain: A: PDB Molecule: coagulation factor viii heavy chain; PDBTitle: crystal structure of human factor viii
71	d1exha	Alignment	not modelled	6.1	15	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: Carbohydrate-binding domain Family: Cellulose-binding domain family II
72	d1pgw21	Alignment	not modelled	6.1	15	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: Positive stranded ssRNA viruses Family: Comoviridae-like VP
73	c2r5kE	Alignment	not modelled	6.0	11	PDB header: viral protein Chain: E: PDB Molecule: major capsid protein l1; PDBTitle: pentamer structure of major capsid protein l1 of human2 papilloma virus type 11
74	c2zooA	Alignment	not modelled	5.9	10	PDB header: oxidoreductase Chain: A: PDB Molecule: probable nitrite reductase; PDBTitle: crystal structure of nitrite reductase from pseudoalteromonas2 haloplanktis tac125
75	c2l8aA	Alignment	not modelled	5.8	18	PDB header: hydrolase Chain: A: PDB Molecule: endoglucanase; PDBTitle: structure of a novel cbm3 lacking the calcium-binding site
76	c3qisA	Alignment	not modelled	5.4	25	PDB header: hydrolase/protein binding Chain: A: PDB Molecule: inositol polyphosphate 5-phosphatase ocr1-1; PDBTitle: recognition of the f&h motif by the lowe syndrome protein ocr1
77	c3mpbA	Alignment	not modelled	5.2	43	PDB header: isomerase Chain: A: PDB Molecule: sugar isomerase; PDBTitle: z5688 from e. coli o157:h7 bound to fructose
78	c2eelA	Alignment	not modelled	5.1	12	PDB header: apoptosis Chain: A: PDB Molecule: cell death activator cide-a; PDBTitle: solution structure of the cide-n domain of human cell death2 activator cide-a
79	c2aenH	Alignment	not modelled	5.1	11	PDB header: viral protein Chain: H: PDB Molecule: outer capsid protein vp4, vp8* core; PDBTitle: crystal structure of the rotavirus strain ds-1 vp8* core
						PDB header: hydrolase

80 [c1lf6A_](#)

Alignment

not modelled

5.0

10

Chain: A; **PDB Molecule:**glucoamylase;
PDB Title: crystal structure of bacterial glucoamylase