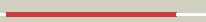
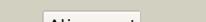
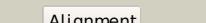


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P32170
Date	Thu Jan 5 11:49:48 GMT 2012
Unique Job ID	e491b94b05fd5204

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1d8wa			100.0	98	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: L-rhamnose isomerase
2	c3p14C			100.0	59	PDB header: isomerase Chain: C: PDB Molecule: l-rhamnose isomerase; PDBTitle: crystal structure of l-rhamnose isomerase with a novel high thermo-2 stability from bacillus halodurans
3	c2j56A			100.0	19	PDB header: isomerase, metal-binding protein Chain: A: PDB Molecule: l-rhamnose isomerase; PDBTitle: crystal structure of l-rhamnose isomerase from pseudomonas2 stutzeri with l-rhamnose
4	d1xl1ma			100.0	15	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
5	d1bxca			100.0	13	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
6	d1bxba			100.0	13	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
7	c3ktcB			100.0	14	PDB header: isomerase Chain: B: PDB Molecule: xylose isomerase; PDBTitle: crystal structure of putative sugar isomerase (yp_050048.1) from2 erwinia carotovora atroseptica scri1043 at 1.54 a resolution
8	d2glka1			100.0	15	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
9	d1muwa			100.0	15	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
10	d1qt1a			100.0	14	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
11	d1xima			100.0	17	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase

12	d1a0ea_			99.7	15	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
13	d1a0da_			99.7	15	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
14	d1a0ca_			99.7	15	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
15	c3qxbB_			98.7	13	PDB header: isomerase Chain: B: PDB Molecule: putative xylose isomerase; PDBTitle: crystal structure of a putative xylose isomerase (yp_426450.1) from <i>rhodospirillum rubrum</i> atcc 11170 at 1.90 a resolution
16	c2qw5B_			98.6	16	PDB header: isomerase Chain: B: PDB Molecule: xylose isomerase-like tim barrel; PDBTitle: crystal structure of a putative sugar phosphate isomerase/epimerase2 (ava4194) from <i>anabaena variabilis</i> atcc 29413 at 1.78 a resolution
17	c2zvrA_			98.5	14	PDB header: isomerase Chain: A: PDB Molecule: uncharacterized protein tm_0416; PDBTitle: crystal structure of a d-tagatose 3-epimerase-related2 protein from <i>thermotoga maritima</i>
18	c3cgkB_			98.5	13	PDB header: isomerase Chain: B: PDB Molecule: l-ribulose-5-phosphate 3-epimerase ulae; PDBTitle: crystal structure of l-xylulose-5-phosphate 3-epimerase ulae (form b)2 complex with zn2+ and sulfate
19	c3kwsB_			98.2	13	PDB header: isomerase Chain: B: PDB Molecule: putative sugar isomerase; PDBTitle: crystal structure of putative sugar isomerase (yp_001305149.1) from <i>2 parabacteroides distasonis</i> atcc 8503 at 1.68 a resolution
20	c2hk1D_			98.2	13	PDB header: isomerase Chain: D: PDB Molecule: d-psicose 3-epimerase; PDBTitle: crystal structure of d-psicose 3-epimerase (dpease) in the presence of 2 d-fructose
21	d1i60a_		not modelled	98.2	16	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: loll-like
22	d1xp3a1		not modelled	98.2	12	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Endonuclease IV
23	c2x7vA_		not modelled	98.1	13	PDB header: hydrolase Chain: A: PDB Molecule: probable endonuclease 4; PDBTitle: crystal structure of <i>thermotoga maritima</i> endonuclease iv in2 the presence of zinc
24	d1qtwa_		not modelled	98.0	9	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Endonuclease IV
25	c3ju2A_		not modelled	97.9	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein smc04130; PDBTitle: crystal structure of protein smc04130 from <i>sinorhizobium meliloti</i> 1021
26	d1k77a_		not modelled	97.8	13	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Hypothetical protein YgbM (EC1530)
27	c3bzjA_		not modelled	97.7	13	PDB header: hydrolase Chain: A: PDB Molecule: uv endonuclease; PDBTitle: uvde k229l
28	c2zdsB_		not modelled	97.7	11	PDB header: dna binding protein Chain: B: PDB Molecule: putative dna-binding protein; PDBTitle: crystal structure of sco6571 from <i>streptomyces coelicolor</i> 2 a3(2) PDB header: isomerase Chain: B: PDB Molecule: sugar phosphate isomerase/epimerase;

29	c3obeB	Alignment	not modelled	97.7	12	PDB header: crystal structure of a sugar phosphate isomerase/epimerase (bdi_3400)2 from parabacteroides distasonis atcc 8503 at 1.70 a resolution Chain: C: PDB Molecule: d-tagatose 3-epimerase; PDBTitle: crystal structure of d-tagatose 3-epimerase from2 pseudomonas cichorii
30	c2ou4C	Alignment	not modelled	97.5	14	PDB header: hydrolase Chain: A: PDB Molecule: endonuclease iv; PDBTitle: crystal structure of endonuclease iv from thermus thermophilus hb8
31	c3aamA	Alignment	not modelled	97.3	13	PDB header: isomerase Chain: A: PDB Molecule: ap endonuclease, family 2; PDBTitle: crystal structure of ap endonuclease, family 2 from brucella2 melitensis
32	c3ngfA	Alignment	not modelled	97.1	14	PDB header: lyase Chain: A: PDB Molecule: uncharacterized protein asbf; PDBTitle: crystal structure of the probable 3-dhs dehydratase asbf involved in2 the petrobactin synthesis from bacillus anthracis
33	c3dx5A	Alignment	not modelled	97.1	15	PDB header: isomerase Chain: A: PDB Molecule: sugar phosphate isomerase/epimerase; PDBTitle: crystal structure of sugar phosphate isomerase/epimerase2 (yp_001303399_1) from parabacteroides distasonis atcc 8503 at 1.70 a3 resolution
34	c3l23A	Alignment	not modelled	97.0	12	PDB header: isomerase Chain: A: PDB Molecule: putative sugar isomerase; PDBTitle: crystal structure of putative sugar isomerase. (yp_001305105_1) from2 parabacteroides distasonis atcc 8503 at 1.44 a resolution
35	c3lmzA	Alignment	not modelled	96.7	11	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: UxuA-like
36	d1tz9a	Alignment	not modelled	96.7	16	PDB header: biosynthetic protein Chain: A: PDB Molecule: inositol catabolism protein iole; PDBTitle: crystal structure of a putative inositol catabolism protein iole2 (iole, lp_3607) from lactobacillus plantarum wcf51 at 1.85 a3 resolution
37	c3cnyA	Alignment	not modelled	96.5	12	PDB header: lyase Chain: B: PDB Molecule: d-mannonate dehydratase; PDBTitle: crystal structure of streptococcus suis mannose2 dehydratase complexed with substrate analogue
38	c3bdkB	Alignment	not modelled	96.4	16	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: loll-like
39	d2g0wa1	Alignment	not modelled	96.0	11	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: loll-like
40	d2q02a1	Alignment	not modelled	93.5	14	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: loll-like
41	d1yx1a1	Alignment	not modelled	93.3	12	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: KguE-like
42	c3p6IA	Alignment	not modelled	89.6	11	PDB header: isomerase Chain: A: PDB Molecule: sugar phosphate isomerase/epimerase; PDBTitle: crystal structure of a sugar phosphate isomerase/epimerase (bdi_1903)2 from parabacteroides distasonis atcc 8503 at 1.85 a resolution
43	c2wvsD	Alignment	not modelled	84.8	17	PDB header: hydrolase Chain: D: PDB Molecule: alpha-l-fucosidase; PDBTitle: crystal structure of an alpha-l-fucosidase gh29 trapped2 covalent intermediate from bacteroides thetaiotaomicron in3 complex with 2-fluoro-fucosyl fluoride using an e288q4 mutant
44	d1x7fa2	Alignment	not modelled	73.7	27	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Outer surface protein, N-terminal domain
45	c2p0oA	Alignment	not modelled	70.6	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein duf871; PDBTitle: crystal structure of a conserved protein from locus ef_2437 in2 enterococcus faecalis with an unknown function
46	c1uasA	Alignment	not modelled	64.7	19	PDB header: hydrolase Chain: A: PDB Molecule: alpha-galactosidase; PDBTitle: crystal structure of rice alpha-galactosidase
47	c2vpnB	Alignment	not modelled	55.6	14	PDB header: transport Chain: B: PDB Molecule: periplasmic substrate binding protein; PDBTitle: high-resolution structure of the periplasmic ectoine-2 binding protein from teaabc trap-transporter of halomonas3 elongata
48	c2by0A	Alignment	not modelled	54.6	36	PDB header: hydrolase Chain: A: PDB Molecule: maltooligosyl trehalose trehalohydrolase; PDBTitle: is radiation damage dependent on the dose-rate used during2 macromolecular crystallography data collection
49	c3pt1A	Alignment	not modelled	50.0	30	PDB header: hydrolase Chain: A: PDB Molecule: upf0364 protein ymr027w; PDBTitle: structure of duf89 from saccharomyces cerevisiae co-crystallized with2 f6p.
50	d1ktba2	Alignment	not modelled	48.2	19	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
51	c1x7fA	Alignment	not modelled	48.0	32	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: outer surface protein; PDBTitle: crystal structure of an uncharacterized b. cereus protein
52	c2d0gA	Alignment	not modelled	45.5	20	PDB header: hydrolase Chain: A: PDB Molecule: alpha-amylase i; PDBTitle: crystal structure of thermoactinomyces vulgaris r-47 alpha-2 amylase 1 (tvai) mutant d356n/e396q complexed with p5, a3 pullulan model oligosaccharide
53	d1uasa2	Alignment	not modelled	42.1	19	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain

54	c3irmB	Alignment	not modelled	41.3	11	PDB header: hydrolase Chain: B: PDB Molecule: alpha-galactosidase 1; PDBTitle: structure of alfa-galactosidase from saccharomyces cerevisiae with2 raffinose
55	c2ya0A	Alignment	not modelled	38.2	21	PDB header: hydrolase Chain: A: PDB Molecule: putative alkaline amylopullulanase; PDBTitle: catalytic module of the multi-modular glycogen-degrading2 pneumococcal virulence factor spua
56	c3emzA	Alignment	not modelled	37.6	18	PDB header: hydrolase Chain: A: PDB Molecule: endo-1,4-beta-xylanase; PDBTitle: crystal structure of xylanase xynb from paenibacillus2 barcinonensis complexed with a conduramine derivative
57	d1kwga2	Alignment	not modelled	37.6	9	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
58	d1q2ha	Alignment	not modelled	36.9	15	Fold: Dimerisation interlock Superfamily: Phenylalanine zipper Family: Adapter protein APS, dimerisation domain
59	c3czkA	Alignment	not modelled	36.4	9	PDB header: hydrolase Chain: A: PDB Molecule: sucrose hydrolase; PDBTitle: crystal structure analysis of sucrose hydrolase(suh) e322q-2 sucrose complex
60	c3k1dA	Alignment	not modelled	34.3	18	PDB header: transferase Chain: A: PDB Molecule: 1,4-alpha-glucan-branched enzyme; PDBTitle: crystal structure of glycogen branching enzyme synonym: 1,4-alpha-d-2 glucan:1,4-alpha-d-glucan 6-glucosyl-transferase from mycobacterium3 tuberculosis h37rv
61	d2fywa1	Alignment	not modelled	33.7	26	Fold: NIF3 (NGG1p interacting factor 3)-like Superfamily: NIF3 (NGG1p interacting factor 3)-like Family: NIF3 (NGG1p interacting factor 3)-like
62	d1bf2a3	Alignment	not modelled	33.6	19	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
63	c3r66A	Alignment	not modelled	33.2	20	PDB header: viral protein/antiviral protein Chain: A: PDB Molecule: non-structural protein 1; PDBTitle: crystal structure of human isg15 in complex with ns1 n-terminal region2 from influenza virus b, northeast structural genomics consortium3 target ids hx6481, hr2873, and or2
64	d1cyga4	Alignment	not modelled	33.1	32	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
65	d1xeqa1	Alignment	not modelled	33.0	20	Fold: S15/NS1 RNA-binding domain Superfamily: S15/NS1 RNA-binding domain Family: N-terminal, RNA-binding domain of nonstructural protein NS1
66	c1h2aS	Alignment	not modelled	32.5	24	PDB header: oxidoreductase Chain: S: PDB Molecule: hydrogenase; PDBTitle: single crystals of hydrogenase from desulfovibrio vulgaris
67	c2if8B	Alignment	not modelled	32.2	16	PDB header: transferase Chain: B: PDB Molecule: inositol polyphosphate multikinase; PDBTitle: crystal structure of inositol phosphate multikinase ipk2 in complex2 with adp and mn2+ from s. cerevisiae
68	c3m07A	Alignment	not modelled	31.9	26	PDB header: unknown function Chain: A: PDB Molecule: putative alpha amylase; PDBTitle: 1.4 angstrom resolution crystal structure of putative alpha2 amylase from salmonella typhimurium.
69	c3a23A	Alignment	not modelled	31.7	17	PDB header: hydrolase Chain: A: PDB Molecule: putative secreted alpha-galactosidase; PDBTitle: crystal structure of beta-l-arabinopyranosidase complexed with d-2 galactose
70	d1jvaa2	Alignment	not modelled	31.0	32	Fold: Homing endonuclease-like Superfamily: Homing endonucleases Family: Intein endonuclease
71	d1wuis1	Alignment	not modelled	30.7	24	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nickel-iron hydrogenase, small subunit
72	c1ktbA	Alignment	not modelled	30.7	23	PDB header: hydrolase Chain: A: PDB Molecule: alpha-n-acetylgalactosaminidase; PDBTitle: the structure of alpha-n-acetylgalactosaminidase
73	d1wzaa2	Alignment	not modelled	30.5	26	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
74	c3rgwS	Alignment	not modelled	30.3	23	PDB header: oxidoreductase/oxidoreductase Chain: S: PDB Molecule: membrane-bound hydrogenase (nife) small subunit hoxk; PDBTitle: crystal structure at 1.5 a resolution of an h2-reduced, o2-tolerant2 hydrogenase from ralstonia eutropha unmasks a novel iron-sulfur3 cluster
75	c2vncB	Alignment	not modelled	29.9	25	PDB header: hydrolase Chain: B: PDB Molecule: glycogen operon protein glgx; PDBTitle: crystal structure of glycogen debranching enzyme trex from2 sulfolobus solfataricus
76	d1e3da	Alignment	not modelled	29.9	32	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nickel-iron hydrogenase, small subunit
77	d1y0na	Alignment	not modelled	28.3	19	Fold: YehU-like Superfamily: YehU-like Family: YehU-like
78	d2aaaa2	Alignment	not modelled	27.9	18	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
79	d1uoza	Alignment	not modelled	27.5	17	Fold: 7-stranded beta/alpha barrel Superfamily: Glycosyl hydrolases family 6, cellulases

						Family: Glycosyl hydrolases family 6, cellulases
80	c3myrE	Alignment	not modelled	26.9	25	PDB header: oxidoreductase Chain: E: PDB Molecule: hydrogenase (nife) small subunit hyda; PDBTitle: crystal structure of [nife] hydrogenase from allochromatium vinosum in2 its ni-a state
81	c3a5vA	Alignment	not modelled	26.9	15	PDB header: hydrolase Chain: A: PDB Molecule: alpha-galactosidase; PDBTitle: crystal structure of alpha-galactosidase i from mortierella vinacea
82	d1eh9a3	Alignment	not modelled	26.3	31	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
83	d1r46a2	Alignment	not modelled	26.3	11	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Amylase, catalytic domain
84	c2kelB	Alignment	not modelled	25.6	17	PDB header: transcription repressor Chain: B: PDB Molecule: uncharacterized protein 56b; PDBTitle: structure of the transcription regulator svtr from the2 hyperthermophilic archaeal virus sirv1
85	c2e8yA	Alignment	not modelled	25.2	14	PDB header: hydrolase Chain: A: PDB Molecule: amyx protein; PDBTitle: crystal structure of pullulanase type i from bacillus subtilis str.2 168
86	c1wzaA	Alignment	not modelled	25.1	23	PDB header: hydrolase Chain: A: PDB Molecule: alpha-amylase a; PDBTitle: crystal structure of alpha-amylase from h.orenii
87	d1tjoa	Alignment	not modelled	25.1	11	Fold: Ferritin-like Superfamily: Ferritin-like Family: Ferritin
88	d1frfs	Alignment	not modelled	24.9	32	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nickel-iron hydrogenase, small subunit
89	c3uowB	Alignment	not modelled	24.8	7	PDB header: ligase Chain: B: PDB Molecule: gmp synthetase; PDBTitle: crystal structure of pf10_0123, a gmp synthetase from plasmodium2 falciparum
90	d1yq9a1	Alignment	not modelled	24.4	24	Fold: HydA/Nqo6-like Superfamily: HydA/Nqo6-like Family: Nickel-iron hydrogenase, small subunit
91	c3qomA	Alignment	not modelled	24.2	23	PDB header: hydrolase Chain: A: PDB Molecule: 6-phospho-beta-glucosidase; PDBTitle: crystal structure of 6-phospho-beta-glucosidase from lactobacillus2 plantarum
92	c2nydB	Alignment	not modelled	23.7	13	PDB header: unknown function Chain: B: PDB Molecule: upf0135 protein sa1388; PDBTitle: crystal structure of staphylococcus aureus hypothetical protein sa1388
93	c2kebA	Alignment	not modelled	23.1	24	PDB header: dna binding protein Chain: A: PDB Molecule: dna polymerase subunit alpha b; PDBTitle: nmr solution structure of the n-terminal domain of the dna polymerase2 alpha p68 subunit
94	c1t0oA	Alignment	not modelled	22.4	15	PDB header: hydrolase Chain: A: PDB Molecule: alpha-galactosidase; PDBTitle: the structure of alpha-galactosidase from trichoderma reesei complexed2 with beta-d-galactose
95	d1z8ma1	Alignment	not modelled	22.2	12	Fold: RelE-like Superfamily: RelE-like Family: RelE-like
96	d1xyyna	Alignment	not modelled	22.0	33	Fold: Concanavalin A-like lectins/glucanases Superfamily: Concanavalin A-like lectins/glucanases Family: Xylanase/endoglucanase 11/12
97	c3civA	Alignment	not modelled	21.3	12	PDB header: hydrolase Chain: A: PDB Molecule: endo-beta-1,4-mannanase; PDBTitle: crystal structure of the endo-beta-1,4-mannanase from alicyclobacillus acidocaldarius
98	c3uj2C	Alignment	not modelled	20.9	15	PDB header: lyase Chain: C: PDB Molecule: enolase 1; PDBTitle: crystal structure of an enolase from anaerostipes caccae (efi target2 efi-502054) with bound mg and sulfate
99	c2cncA	Alignment	not modelled	20.8	10	PDB header: hydrolase Chain: A: PDB Molecule: endoxyylanase; PDBTitle: family 10 xylanase
100	c3eypB	Alignment	not modelled	20.8	15	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative alpha-l-fucosidase; PDBTitle: crystal structure of putative alpha-l-fucosidase from bacteroides2 thetaiotaomicron
101	c3d1nK	Alignment	not modelled	20.2	26	PDB header: transcription regulator/dna Chain: K: PDB Molecule: pou domain, class 6, transcription factor 1; PDBTitle: structure of human brn-5 transcription factor in complex2 with corticotrophin-releasing hormone gene promoter
102	d1xyza	Alignment	not modelled	20.0	11	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-glycanases
103	c1xyzA	Alignment	not modelled	20.0	11	PDB header: glycosyltransferase Chain: A: PDB Molecule: 1,4-beta-d-xylan-xylanohydrolase; PDBTitle: a common protein fold and similar active site in two2 distinct families of beta-glycanases