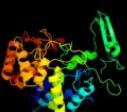
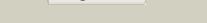
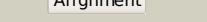


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P62601
Date	Thu Jan 5 12:07:39 GMT 2012
Unique Job ID	90476ef97260f506

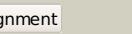
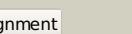
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2jg0a1			100.0	51	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Trehalase-like
2	c2jg0A_			100.0	51	PDB header: hydrolase Chain: A: PDB Molecule: periplasmic trehalase; PDBTitle: family 37 trehalase from escherichia coli in complex with 1-2 thiatrehazolin
3	c3c67B_			100.0	17	PDB header: hydrolase Chain: B: PDB Molecule: uncharacterized protein ygjk; PDBTitle: escherichia coli k12 ygjk in a complexed with glucose
4	c2z07A_			100.0	21	PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein ttha0978; PDBTitle: crystal structure of uncharacterized conserved protein from2 thermus thermophilus hb8
5	c1v7wA_			99.9	16	PDB header: transferase Chain: A: PDB Molecule: chitobiose phosphorylase; PDBTitle: crystal structure of vibrio proteolyticus chitobiose phosphorylase in2 complex with glcnac
6	c2okxB_			99.9	17	PDB header: hydrolase Chain: B: PDB Molecule: rhamnosidase b; PDBTitle: crystal structure of gh78 family rhamnosidase of bacillus sp. gl1 at2 1.9 a
7	d1v7wa1			99.9	14	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glycosyltransferase family 36 C-terminal domain
8	c3cihA_			99.9	11	PDB header: hydrolase Chain: A: PDB Molecule: putative alpha-rhamnosidase; PDBTitle: crystal structure of a putative alpha-rhamnosidase from2 bacteroides thetaiotaomicron
9	d1lf6a1			99.8	14	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Bacterial glucoamylase C-terminal domain-like
10	c2cqta_			99.8	15	PDB header: transferase Chain: A: PDB Molecule: cellobiose phosphorylase; PDBTitle: crystal structure of cellvibrio gilvus cellobiose phosphorylase2 crystallized from sodium/potassium phosphate
11	c1lf6A_			99.6	17	PDB header: hydrolase Chain: A: PDB Molecule: glucoamylase; PDBTitle: crystal structure of bacterial glucoamylase

12	d1ulva1		99.3	19	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Bacterial glucoamylase C-terminal domain-like
13	d2fbaa1		98.8	17	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glucoamylase
14	c2vn4A		98.7	16	PDB header: hydrolase Chain: A: PDB Molecule: glucoamylase; PDBTitle: glycoside hydrolase family 15 glucoamylase from hypocreaf2 jecorina
15	c1ug9A		98.7	18	PDB header: hydrolase Chain: A: PDB Molecule: glucodextranase; PDBTitle: crystal structure of glucodextranase from arthrobacter globiformis i42
16	d1gaia_		98.6	16	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glucoamylase
17	d2nvpa1		97.7	18	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: CPF0428-like
18	c2ww1B		97.6	17	PDB header: hydrolase Chain: B: PDB Molecule: putative alpha-1,2-mannosidase; PDBTitle: structure of the family gh92 inverting mannosidase bt39902 from bacteroides thetaiotaomicron vpi-5482 in complex with3 thiomannobiose
19	c3qspB		97.6	16	PDB header: hydrolase Chain: B: PDB Molecule: putative uncharacterized protein; PDBTitle: analysis of a new family of widely distributed metal-independent alpha2 mannosidases provides unique insight into the processing of n-linked3 glycans, streptococcus pneumoniae sp_2144 non-productive substrate4 complex with alpha-1,6-mannobiose
20	c2p0vA		97.5	16	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein bt3781; PDBTitle: crystal structure of bt3781 protein from bacteroides2 thetaiotaomicron, northeast structural genomics target3 btr58
21	d2p0va1		97.5	16	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: CPF0428-like
22	c2eacB		97.3	18	PDB header: hydrolase Chain: B: PDB Molecule: alpha-fucosidase; PDBTitle: crystal structure of 1,2-a-l-fucosidase from2 bifidobacterium bifidum in complex with3 deoxyfuconojirimycin
23	c2wvyA		97.1	20	PDB header: hydrolase Chain: A: PDB Molecule: alpha-1,2-mannosidase; PDBTitle: structure of the family gh92 inverting mannosidase bt21992 from bacteroides thetaiotaomicron vpi-5482
24	d1h54a1		96.9	13	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: Glycosyltransferase family 36 C-terminal domain
25	c2rdyB		94.6	12	PDB header: hydrolase Chain: B: PDB Molecule: bh0842 protein; PDBTitle: crystal structure of a putative glycoside hydrolase family2 protein from bacillus halodurans
26	c1h54B		91.8	14	PDB header: hydrolase Chain: B: PDB Molecule: maltose phosphorylase; PDBTitle: maltose phosphorylase from lactobacillus brevis
27	c3gt5A		85.8	12	PDB header: isomerase Chain: A: PDB Molecule: n-acetylglucosamine 2-epimerase; PDBTitle: crystal structure of an n-acetylglucosamine 2-epimerase family protein2 from xylella fastidiosa
28	c3bhwA		58.5	17	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of an uncharacterized protein from magnetospirillum2 magneticum
					Fold: SAM domain-like

29	d1nza	Alignment	not modelled	42.0	11	Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
30	d2afaa1	Alignment	not modelled	38.8	15	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
31	c3k7xA	Alignment	not modelled	37.1	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: lin0763 protein; PDBTitle: crystal structure of the lin0763 protein from listeria2 innocua. northeast structural genomics consortium target3 lkr23.
32	c2q07A	Alignment	not modelled	35.6	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein af0587; PDBTitle: crystal structure of af0587, a protein of unknown function
33	d1q79a3	Alignment	not modelled	33.6	12	Fold: Ferredoxin-like Superfamily: PAP/Archaeal CCA-adding enzyme, C-terminal domain Family: Poly(A) polymerase, PAP, C-terminal domain
34	c2gz6B	Alignment	not modelled	29.1	15	PDB header: isomerase Chain: B: PDB Molecule: n-acetyl-d-glucosamine 2-epimerase; PDBTitle: crystal structure of anabaena sp. ch1 n-acetyl-d-glucosamine 2-epimerase at 2.0 \AA
35	c2g2dA	Alignment	not modelled	28.9	20	PDB header: transferase Chain: A: PDB Molecule: atp:cobalamin adenosyltransferase; PDBTitle: crystal structure of a putative pduo-type atp:cobalamin2 adenosyltransferase from mycobacterium tuberculosis
36	c2qjxA	Alignment	not modelled	27.9	9	PDB header: protein binding Chain: A: PDB Molecule: protein bim1; PDBTitle: structural basis of microtubule plus end tracking by2 xmap215, clip-170 and eb1
37	d1aina	Alignment	not modelled	26.5	12	Fold: Annexin Superfamily: Annexin Family: Annexin
38	d1wu7a2	Alignment	not modelled	24.5	25	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
39	d1fp3a	Alignment	not modelled	21.9	15	Fold: alpha/alpha toroid Superfamily: Six-hairpin glycosidases Family: N-acylglucosamine (NAG) epimerase
40	c1wy1B	Alignment	not modelled	21.7	40	PDB header: transferase Chain: B: PDB Molecule: hypothetical protein ph0671; PDBTitle: crystal structure of the ph0671 protein from pyrococcus horikoshii ot3
41	d2ovra1	Alignment	not modelled	20.8	13	Fold: Skp1 dimerisation domain-like Superfamily: Skp1 dimerisation domain-like Family: Skp1 dimerisation domain-like
42	c1wyoA	Alignment	not modelled	19.8	12	PDB header: structural protein Chain: A: PDB Molecule: microtubule-associated protein rp/eb family PDBTitle: solution structure of the ch domain of human microtubule-2 associated protein rp/eb family member 3
43	d2qjza1	Alignment	not modelled	18.4	12	Fold: CH domain-like Superfamily: Calponin-homology domain, CH-domain Family: Calponin-homology domain, CH-domain
44	d2bcqa1	Alignment	not modelled	18.3	14	Fold: SAM domain-like Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
45	d1jmsa1	Alignment	not modelled	16.5	16	Fold: SAM domain-like Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
46	c3racA	Alignment	not modelled	16.0	17	PDB header: ligase Chain: A: PDB Molecule: histidine-tRNA ligase; PDBTitle: crystal structure of histidine-tRNA ligase subunit from2 alicyclobacillus acidocaldarius subsp. acidocaldarius dsm 446.
47	d1dm5a	Alignment	not modelled	15.1	11	Fold: Annexin Superfamily: Annexin Family: Annexin
48	d2fmpa1	Alignment	not modelled	14.6	19	Fold: SAM domain-like Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
49	c3lhra	Alignment	not modelled	14.3	19	PDB header: transcription regulator Chain: A: PDB Molecule: zinc finger protein 24; PDBTitle: crystal structure of the scan domain from human znf24
50	d1mcxa	Alignment	not modelled	13.6	12	Fold: Annexin Superfamily: Annexin Family: Annexin
51	c1wvtA	Alignment	not modelled	13.6	33	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein st2180; PDBTitle: crystal structure of uncharacterized protein st2180 from sulfolobus2 tokodaii
52	c3ajfA	Alignment	not modelled	13.5	22	PDB header: viral protein Chain: A: PDB Molecule: non-structural protein 3; PDBTitle: structural insights into dsrna binding and rna silencing suppression2 by ns3 protein of rice hoja blanca tenuivirus
53	d1rutx4	Alignment	not modelled	12.7	71	Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: LIM domain
54	c2idxA	Alignment	not modelled	12.0	33	PDB header: transferase Chain: A: PDB Molecule: cob(i)yrinic acid a,c-diamide PDBTitle: structure of human atp:cobalamin adenosyltransferase bound2 to atp.
55	d1iwpa	Alignment	not modelled	11.8	16	Fold: TIM beta/alpha-barrel Superfamily: Cobalamin (vitamin B12)-dependent enzymes Family: Diol dehydratase, alpha subunit

56	d1zeta2		Alignment	not modelled	11.2	20	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
57	d1xg7a_		Alignment	not modelled	10.0	13	Fold: DNA-glycosylase Superfamily: DNA-glycosylase Family: AgoG-like
58	c1kdhA_		Alignment	not modelled	9.8	14	PDB header: transferase/dna Chain: A: PDB Molecule: terminal deoxynucleotidyltransferase short PDBTitle: binary complex of murine terminal deoxynucleotidyl2 transferase with a primer single stranded dna
59	c3qsjA_		Alignment	not modelled	9.7	26	PDB header: hydrolase Chain: A: PDB Molecule: nudix hydrolase; PDBTitle: crystal structure of nudix hydrolase from alicyclobacillus2 acidocaldarius
60	d2ie7a1		Alignment	not modelled	9.7	13	Fold: Annexin Superfamily: Annexin Family: Annexin
61	c3lzzB_		Alignment	not modelled	9.7	78	PDB header: unknown function Chain: B: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structures of cupin superfamily bbdutf985 from branchiostoma2 belcheri tsingtauense in apo and gdp-bound forms
62	d1z3xa1		Alignment	not modelled	9.5	18	Fold: alpha-alpha superhelix Superfamily: ARM repeat Family: GUN4-associated domain
63	d1jq6a_		Alignment	not modelled	9.1	17	Fold: Herpes virus serine proteinase, assemblin Superfamily: Herpes virus serine proteinase, assemblin Family: Herpes virus serine proteinase, assemblin
64	d1k8kd1		Alignment	not modelled	8.9	28	Fold: Secretion chaperone-like Superfamily: Arp2/3 complex subunits Family: Arp2/3 complex subunits
65	d1hvda_		Alignment	not modelled	8.9	13	Fold: Annexin Superfamily: Annexin Family: Annexin
66	c1nj2A_		Alignment	not modelled	8.8	14	PDB header: ligase Chain: A: PDB Molecule: proline-trna synthetase; PDBTitle: crystal structure of prolyl-trna synthetase from methanothermobacter2 thermautotrophicus
67	d1avca1		Alignment	not modelled	8.8	5	Fold: Annexin Superfamily: Annexin Family: Annexin
68	c2flIA_		Alignment	not modelled	8.6	20	PDB header: replication/dna Chain: A: PDB Molecule: dna polymerase iota; PDBTitle: ternary complex of human dna polymerase iota with dna and dttp
69	c2wseE_		Alignment	not modelled	8.5	33	PDB header: photosynthesis Chain: E: PDB Molecule: photosystem i reaction center subunit iv, a, PDBTitle: improved model of plant photosystem i
70	c1w3wA_		Alignment	not modelled	8.4	10	PDB header: coagulation Chain: A: PDB Molecule: annexin a8; PDBTitle: the 2.1 angstrom resolution structure of annexin a8
71	c2bcuA_		Alignment	not modelled	8.3	14	PDB header: transferase, lyase/dna Chain: A: PDB Molecule: dna polymerase lambda; PDBTitle: dna polymerase lambda in complex with a dna duplex2 containing an unpaired damp and a tt mismatch
72	d1fs1b1		Alignment	not modelled	8.2	9	Fold: Skp1 dimerisation domain-like Superfamily: Skp1 dimerisation domain-like Family: Skp1 dimerisation domain-like
73	d1w7ba_		Alignment	not modelled	8.2	5	Fold: Annexin Superfamily: Annexin Family: Annexin
74	d1m9ia2		Alignment	not modelled	8.1	5	Fold: Annexin Superfamily: Annexin Family: Annexin
75	c3k1qB_		Alignment	not modelled	8.1	31	PDB header: virus Chain: B: PDB Molecule: vp3a, the building block protein of inner shell; PDBTitle: backbone model of an aquareovirus virion by cryo-electron2 microscopy and bioinformatics
76	d1alaa_		Alignment	not modelled	8.1	13	Fold: Annexin Superfamily: Annexin Family: Annexin
77	c2dqgD_		Alignment	not modelled	7.9	27	PDB header: cell cycle Chain: D: PDB Molecule: sfi1p; PDBTitle: crystal structure of sfi1p/cdc31p complex
78	d1nc7a_		Alignment	not modelled	7.8	47	Fold: Hypothetical protein TM1070 Superfamily: Hypothetical protein TM1070 Family: Hypothetical protein TM1070
79	d1dk2a_		Alignment	not modelled	7.7	19	Fold: SAM domain-like Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
80	d1riga1		Alignment	not modelled	7.5	28	Fold: Putative anticodon-binding domain of alanyl-tRNA synthetase (AlaRS) Superfamily: Putative anticodon-binding domain of alanyl-tRNA synthetase (AlaRS) Family: Putative anticodon-binding domain of alanyl-tRNA synthetase (AlaRS)
81	d2g4ca2		Alignment	not modelled	7.4	22	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain

82	d1fs2b1		Alignment	not modelled	7.4	9	Fold: Skp1 dimerisation domain-like Superfamily: Skp1 dimerisation domain-like Family: Skp1 dimerisation domain-like
83	c1t94B_		Alignment	not modelled	7.4	25	PDB header: replication Chain: B: PDB Molecule: polymerase (dna directed) kappa; PDBTitle: crystal structure of the catalytic core of human dna2 polymerase kappa
84	d1psea_		Alignment	not modelled	7.4	55	Fold: SH3-like barrel Superfamily: Electron transport accessory proteins Family: Photosystem I accessory protein E (PsaE)
85	c21mdA_		Alignment	not modelled	7.3	67	PDB header: transcription Chain: A: PDB Molecule: prospero homeobox protein 1; PDBTitle: minimal constraints solution nmr structure of prospero homeobox2 protein 1 from homo sapiens, northeast structural genomics consortium3 target hr4660b
86	c2ah6B_		Alignment	not modelled	7.3	33	PDB header: transferase Chain: B: PDB Molecule: bh1595, unknown conserved protein; PDBTitle: crystal structure of a putative cobalamin adenosyltransferase (bh1595)2 from bacillus halodurans c-125 at 1.60 a resolution
87	d1h6za3		Alignment	not modelled	7.2	6	Fold: ATP-grasp Superfamily: Glutathione synthetase ATP-binding domain-like Family: Pyruvate phosphate dikinase, N-terminal domain
88	d2bgxa1		Alignment	not modelled	7.2	29	Fold: PGBD-like Superfamily: PGBD-like Family: Peptidoglycan binding domain, PGBD
89	d1z7ma1		Alignment	not modelled	7.2	21	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
90	c2r7aC_		Alignment	not modelled	7.1	13	PDB header: transport protein Chain: C: PDB Molecule: bacterial heme binding protein; PDBTitle: crystal structure of a periplasmic heme binding protein2 from shigella dysenteriae
91	c3pg8B_		Alignment	not modelled	7.0	20	PDB header: transferase Chain: B: PDB Molecule: phospho-2-dehydro-3-deoxyheptonate aldolase; PDBTitle: truncated form of 3-deoxy-d-arabino-heptulosonate 7-phosphate synthase2 from thermotoga maritima
92	d1gxie_		Alignment	not modelled	7.0	48	Fold: SH3-like barrel Superfamily: Electron transport accessory proteins Family: Photosystem I accessory protein E (PsaE)
93	c1t3nB_		Alignment	not modelled	7.0	21	PDB header: replication/dna Chain: B: PDB Molecule: polymerase (dna directed) iota; PDBTitle: structure of the catalytic core of dna polymerase iota in2 complex with dna and dttp
94	c3k1qC_		Alignment	not modelled	7.0	31	PDB header: virus Chain: C: PDB Molecule: vp3b, the building block protein of inner shell; PDBTitle: backbone model of an aquareovirus virion by cryo-electron2 microscopy and bioinformatics
95	d2g07a2		Alignment	not modelled	6.9	17	Fold: Uracil-DNA glycosylase-like Superfamily: Uracil-DNA glycosylase-like Family: AF0587 domain-like
96	d1m9ia1		Alignment	not modelled	6.9	5	Fold: Annexin Superfamily: Annexin Family: Annexin
97	d1usya_		Alignment	not modelled	6.9	21	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
98	d1r8ea2		Alignment	not modelled	6.7	14	Fold: Probable bacterial effector-binding domain Superfamily: Probable bacterial effector-binding domain Family: Multidrug-binding domain of transcription activator BmrR
99	d1cfra_		Alignment	not modelled	6.5	17	Fold: Restriction endonuclease-like Superfamily: Restriction endonuclease-like Family: Cfr10I/Bse634I