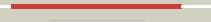
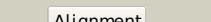
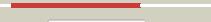
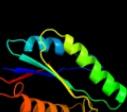
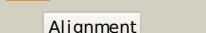
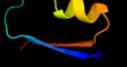
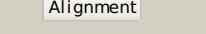
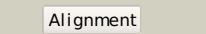
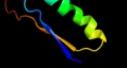
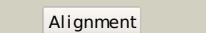
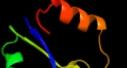
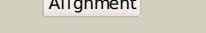
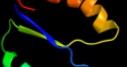
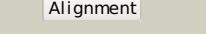
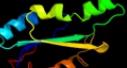
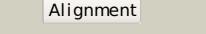
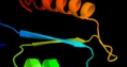
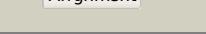
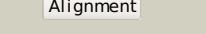
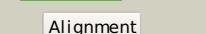
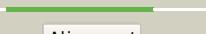
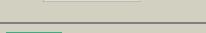


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P71311
Date	Thu Jan 5 12:12:46 GMT 2012
Unique Job ID	cf46ee13cd9398d0

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2ixdB_			100.0	26	PDB header: hydrolase Chain: B; PDB Molecule: lmbE-related protein; PDBTitle: crystal structure of the putative deacetylase bc1534 from2 bacillus cereus
2	d1uana_			100.0	27	Fold: LmbE-like Superfamily: LmbE-like Family: LmbE-like
3	c3dfiA_			100.0	29	PDB header: hydrolase Chain: A; PDB Molecule: pseudoaglycone deacetylase dbv21; PDBTitle: the crystal structure of antimicrobial reagent a40926 pseudoaglycone2 deacetylase dbv21
4	c1q7tA_			100.0	25	PDB header: hydrolase Chain: A; PDB Molecule: hypothetical protein rv1170; PDBTitle: rv1170 (mshb) from mycobacterium tuberculosis
5	c3dfmA_			100.0	29	PDB header: hydrolase Chain: A; PDB Molecule: teicoplanin pseudoaglycone deacetylase orf2; PDBTitle: the crystal structure of the zinc inhibited form of2 teicoplanin deacetylase orf2
6	d1q74a_			100.0	27	Fold: LmbE-like Superfamily: LmbE-like Family: LmbE-like
7	c1t9gR_			91.6	13	PDB header: oxidoreductase, electron transport Chain: R; PDB Molecule: electron transfer flavoprotein alpha-subunit, PDBTitle: structure of the human mcad:etf complex
8	c3eywA_			91.0	13	PDB header: transport protein Chain: A; PDB Molecule: c-terminal domain of glutathione-regulated potassium-efflux PDBTitle: crystal structure of the c-terminal domain of e. coli kefc in complex2 with keff
9	d1efva1			90.9	13	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits
10	d1qrda_			84.6	19	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase
11	d1dxqa_			84.4	16	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase

12	d1d4aa			81.5	22	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase	
13	d2gwx1			81.4	16	Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Quinone reductase	
14	c2r60A			80.7	26	PDB header: transferase Chain: A: PDB Molecule: glycosyl transferase, group 1; PDBTitle: structure of apo sucrose phosphate synthase (sps) of2 halothermothrix orenii	
15	c1f8sA			75.0	26	PDB header: oxidoreductase Chain: A: PDB Molecule: l-amino acid oxidase; PDBTitle: crystal structure of l-amino acid oxidase from calluselasma2 rhodostoma, complexed with three molecules of o-aminobenzoate.	
16	c3f2vA			72.2	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: general stress protein 14; PDBTitle: crystal structure of the general stress protein 142 (tde0354) in complex with fmn from treponema denticola,3 northeast structural genomics consortium target tdr58.	
17	c3ha2B			71.9	11	PDB header: oxidoreductase Chain: B: PDB Molecule: nadph-quinone reductase; PDBTitle: crystal structure of protein (nadph-quinone reductase) from2 p.pentosaceus, northeast structural genomics consortium target ptr24a	
18	c1o94D			71.9	19	PDB header: electron transport Chain: D: PDB Molecule: electron transfer flavoprotein alpha-subunit; PDBTitle: ternary complex between trimethylamine dehydrogenase and2 electron transferring flavoprotein	
19	c3ih5A			70.4	19	PDB header: electron transport Chain: A: PDB Molecule: electron transfer flavoprotein alpha-subunit; PDBTitle: crystal structure of electron transfer flavoprotein alpha-2 subunit from bacteroides thetaiotaomicron	
20	d1efpb			70.4	19	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits	
21	c2e1mA		Alignment	not modelled	64.5	29	PDB header: oxidoreductase Chain: A: PDB Molecule: l-glutamate oxidase; PDBTitle: crystal structure of l-glutamate oxidase from streptomyces sp. x-119-6
22	d1v4va		Alignment	not modelled	58.8	16	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDP-N-acetylglucosamine 2-epimerase
23	c3dzca		Alignment	not modelled	58.2	15	PDB header: isomerase Chain: A: PDB Molecule: udp-n-acetylglucosamine 2-epimerase; PDBTitle: 2.35 angstrom resolution structure of wecb (vc0917), a udp-n-2 acetylglucosamine 2-epimerase from vibrio cholerae.
24	d3clsc1		Alignment	not modelled	58.0	23	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits
25	c3ot5D		Alignment	not modelled	56.2	15	PDB header: isomerase Chain: D: PDB Molecule: udp-n-acetylglucosamine 2-epimerase; PDBTitle: 2.2 angstrom resolution crystal structure of putative udp-n-2 acetylglucosamine 2-epimerase from listeria monocytogenes
26	d1f0ka		Alignment	not modelled	55.8	25	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Peptidoglycan biosynthesis glycosyltransferase MurG
27	d3cls1		Alignment	not modelled	54.1	18	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits
28	d1reoa1		Alignment	not modelled	42.8	24	Fold: FAD/NAD(P)-binding domain Superfamily: FAD/NAD(P)-binding domain Family: FAD-linked reductases, N-terminal domain
							Fold: Tryptophan synthase beta subunit-like PLP-dependent enzymes

29	d1vb3a1		Alignment	not modelled	40.6	16	Superfamily: Tryptophan synthase beta subunit-like PLP-dependent enzymes Family: Tryptophan synthase beta subunit-like PLP-dependent enzymes
30	c3jx9B_		Alignment	not modelled	40.1	14	PDB header: isomerase Chain: B: PDB Molecule: putative phosphoheptose isomerase; PDBTitle: crystal structure of putative phosphoheptose isomerase2 (yp_001815198.1) from <i>exiguobacterium</i> sp. 255-15 at 1.95 a resolution
31	c3iuuA_		Alignment	not modelled	39.5	12	PDB header: hydrolase Chain: A: PDB Molecule: putative metallopeptidase; PDBTitle: crystal structure of putative metallopeptidase (yp_676511.1) from <i>2 mesorhizobium</i> sp. bnc1 at 2.13 a resolution
32	d1o94c_		Alignment	not modelled	38.3	22	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits
33	c2b9yA_		Alignment	not modelled	35.3	34	PDB header: isomerase Chain: A: PDB Molecule: putative amino oxidase; PDBTitle: crystal structure of cla-producing fatty acid isomerase2 from <i>p. acnes</i>
34	c2cmgA_		Alignment	not modelled	34.9	20	PDB header: transferase Chain: A: PDB Molecule: spermidine synthase; PDBTitle: crystal structure of spermidine synthase from <i>helicobacter pylori</i>
35	c3lteH_		Alignment	not modelled	32.9	23	PDB header: transcription Chain: H: PDB Molecule: response regulator; PDBTitle: crystal structure of response regulator (signal receiver domain) from <i>2 bermanella marisrubri</i>
36	d1gph11		Alignment	not modelled	31.8	14	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
37	d1ecfa1		Alignment	not modelled	31.4	16	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
38	c3qi7A_		Alignment	not modelled	30.9	19	PDB header: transcription Chain: A: PDB Molecule: putative transcriptional regulator; PDBTitle: crystal structure of a putative transcriptional regulator2 (yp_001089212.1) from <i>clostridium difficile</i> 630 at 1.86 a resolution
39	c2iyaB_		Alignment	not modelled	29.4	8	PDB header: transferase Chain: B: PDB Molecule: oleandomycin glycosyltransferase; PDBTitle: the crystal structure of macrolide glycosyltransferases: a2 blueprint for antibiotic engineering
40	d2d59a1		Alignment	not modelled	28.0	17	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: CoA-binding domain
41	c3dezA_		Alignment	not modelled	27.0	19	PDB header: transferase Chain: A: PDB Molecule: orotate phosphoribosyltransferase; PDBTitle: crystal structure of orotate phosphoribosyltransferase from <i>2 streptococcus mutans</i>
42	c3c4vB_		Alignment	not modelled	27.0	23	PDB header: transferase Chain: B: PDB Molecule: predicted glycosyltransferases; PDBTitle: structure of the retaining glycosyltransferase msha:the2 first step in mycothiol biosynthesis. organism:3 corynebacterium glutamicum : complex with udp and l1-ins-1-4 p.
43	d2acva1		Alignment	not modelled	26.0	12	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDPGT-like
44	c1ps9A_		Alignment	not modelled	25.5	20	PDB header: oxidoreductase Chain: A: PDB Molecule: 2,4-dienoyl-coa reductase; PDBTitle: the crystal structure and reaction mechanism of e. coli 2,4-2 dienoyl coa reductase
45	c3ia7A_		Alignment	not modelled	25.3	18	PDB header: transferase Chain: A: PDB Molecule: calg4; PDBTitle: crystal structure of calg4, the calicheamicin glycosyltransferase
46	d1fmfa_		Alignment	not modelled	24.6	14	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
47	c2jb1B_		Alignment	not modelled	23.8	17	PDB header: oxidoreductase Chain: B: PDB Molecule: l-amino acid oxidase; PDBTitle: the l-amino acid oxidase from <i>rhodococcus opacus</i> in complex2 with l-alanine
48	d1k68a_		Alignment	not modelled	22.9	19	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
49	c2xagA_		Alignment	not modelled	22.4	27	PDB header: transcription Chain: A: PDB Molecule: lysine-specific histone demethylase 1; PDBTitle: crystal structure of lsd1-corest in complex with para-bromo-2 (-)-trans-2-phenylcyclopropyl-1-amine
50	c2v1dA_		Alignment	not modelled	22.4	27	PDB header: oxidoreductase/repressor Chain: A: PDB Molecule: lysine-specific histone demethylase 1; PDBTitle: structural basis of lsd1-corest selectivity in histone h32 recognition
51	c3rpeA_		Alignment	not modelled	22.3	16	PDB header: oxidoreductase Chain: A: PDB Molecule: modulator of drug activity b; PDBTitle: 1.1 angstrom crystal structure of putative modulator of drug activity2 (mdab) from <i>yersinia pestis</i> co92.
52	c2hkoA_		Alignment	not modelled	22.2	27	PDB header: oxidoreductase Chain: A: PDB Molecule: lysine-specific histone demethylase 1; PDBTitle: crystal structure of lsd1
53	c3d0qB_		Alignment	not modelled	22.1	8	PDB header: transferase Chain: B: PDB Molecule: protein calg3; PDBTitle: crystal structure of calg3 from <i>micromonospora echiniospora</i> determined2 in space group i222
							PDB header: transferase Chain: A: PDB Molecule: probable tRNA (5-methylaminomethyl-2-

54	c2hmaA	Alignment	not modelled	21.5	8	thiouridylate)- PDBTitle: the crystal structure of trna (5-methylaminomethyl-2-thiouridylate)-2 methyltransferase trmu from streptococcus pneumoniae
55	c3g9cF	Alignment	not modelled	21.5	8	PDB header: hydrolase Chain: F: PDB Molecule: acetylpolyamine amidohydrolase; PDBTitle: crystal structure of h159a apah complexed with n8-acetylsperrmidine
56	d1a9xa3	Alignment	not modelled	21.4	24	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: BC N-terminal domain-like
57	d2aea1	Alignment	not modelled	21.2	24	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
58	c3menC	Alignment	not modelled	20.9	8	PDB header: hydrolase Chain: C: PDB Molecule: acetylpolyamine aminohydrolase; PDBTitle: crystal structure of acetylpolyamine aminohydrolase from burkholderia2 pseudomallei, iodide soak
59	c1k97A	Alignment	not modelled	20.8	15	PDB header: ligase Chain: A: PDB Molecule: argininosuccinate synthase; PDBTitle: crystal structure of e. coli argininosuccinate synthetase in complex2 with aspartate and citrulline
60	d1k66a	Alignment	not modelled	19.4	18	Fold: Flavodoxin-like Superfamily: CheY-like Family: CheY-related
61	c3devB	Alignment	not modelled	19.1	12	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: sh1221; PDBTitle: crystal structure of sh1221 protein from staphylococcus haemolyticus,2 northeast structural genomics consortium target shr87
62	c2yxba	Alignment	not modelled	19.0	12	PDB header: isomerase Chain: A: PDB Molecule: coenzyme b12-dependent mutase; PDBTitle: crystal structure of the methylmalonyl-coa mutase alpha-subunit from2 aeropyrum pernix
63	c2bi8A	Alignment	not modelled	18.9	38	PDB header: isomerase Chain: A: PDB Molecule: udp-galactopyranose mutase; PDBTitle: udp-galactopyranose mutase from klebsiella pneumoniae with2 reduced fad
64	c3m3hA	Alignment	not modelled	17.4	18	PDB header: transferase Chain: A: PDB Molecule: orotate phosphoribosyltransferase; PDBTitle: 1.75 angstrom resolution crystal structure of an orotate2 phosphoribosyltransferase from bacillus anthracis str. 'ames3 ancestor'
65	d2iida1	Alignment	not modelled	17.4	30	Fold: FAD/NAD(P)-binding domain Superfamily: FAD/NAD(P)-binding domain Family: FAD-linked reductases, N-terminal domain
66	d1ir6a	Alignment	not modelled	17.3	21	Fold: DHH phosphoesterases Superfamily: DHH phosphoesterases Family: Exonuclease RecJ
67	c1ir6A	Alignment	not modelled	17.3	21	PDB header: hydrolase Chain: A: PDB Molecule: exonuclease recj; PDBTitle: crystal structure of exonuclease recj bound to manganese
68	d1ybha3	Alignment	not modelled	17.2	14	Fold: Thiamin diphosphate-binding fold (THDP-binding) Superfamily: Thiamin diphosphate-binding fold (THDP-binding) Family: Pyruvate oxidase and decarboxylase PP module
69	d1p3da1	Alignment	not modelled	17.2	23	Fold: MurCD N-terminal domain Superfamily: MurCD N-terminal domain Family: MurCD N-terminal domain
70	c2gwrA	Alignment	not modelled	16.8	24	PDB header: signaling protein Chain: A: PDB Molecule: dna-binding response regulator mtra; PDBTitle: crystal structure of the response regulator protein mtra from2 mycobacterium tuberculosis
71	d2ji7a3	Alignment	not modelled	16.8	19	Fold: Thiamin diphosphate-binding fold (THDP-binding) Superfamily: Thiamin diphosphate-binding fold (THDP-binding) Family: Pyruvate oxidase and decarboxylase PP module
72	d2c1hal	Alignment	not modelled	16.7	17	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: 5-aminolaevulinate dehydratase, ALAD (porphobilinogen synthase)
73	d1y0ba1	Alignment	not modelled	16.7	26	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
74	c3enkB	Alignment	not modelled	16.6	15	PDB header: isomerase Chain: B: PDB Molecule: udp-glucose 4-epimerase; PDBTitle: 1.9a crystal structure of udp-glucose 4-epimerase from2 burkholderia pseudomallei
75	c3q9sA	Alignment	not modelled	16.2	19	PDB header: dna binding protein Chain: A: PDB Molecule: dna-binding response regulator; PDBTitle: crystal structure of rra(1-215) from deinococcus radiodurans
76	c2xhyD	Alignment	not modelled	16.2	8	PDB header: hydrolase Chain: D: PDB Molecule: 6-phospho-beta-glucosidase bgla; PDBTitle: crystal structure of e.coli bgla
77	d2pw6a1	Alignment	not modelled	16.1	20	Fold: Phosphorylase/hydrolase-like Superfamily: LigB-like Family: LigB-like
78	c3iaaB	Alignment	not modelled	15.8	15	PDB header: transferase Chain: B: PDB Molecule: calg2; PDBTitle: crystal structure of calg2, calicheamicin glycosyltransferase, tdp2 bound form
79	d1k92a1	Alignment	not modelled	15.6	16	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
						PDB header: hydrolase

80	c3gomA	Alignment	not modelled	15.4	8	Chain: A: PDB Molecule: 6-phospho-beta-glucosidase; PDBTitle: crystal structure of 6-phospho-beta-glucosidase from lactobacillus2 plantarum
81	d1mzva	Alignment	not modelled	15.4	24	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
82	c2dy0A	Alignment	not modelled	14.8	19	PDB header: transferase Chain: A: PDB Molecule: adenine phosphoribosyltransferase; PDBTitle: crystal structure of project jw0458 from escherichia coli
83	d2afwa1	Alignment	not modelled	14.6	21	Fold: Phosphorylase/hydrolase-like Superfamily: Zn-dependent exopeptidases Family: Glutaminyl-peptide cyclotransferase-like
84	d1seza1	Alignment	not modelled	14.3	33	Fold: FAD/NAD(P)-binding domain Superfamily: FAD/NAD(P)-binding domain Family: FAD-linked reductases, N-terminal domain
85	c3ai0A	Alignment	not modelled	14.0	18	PDB header: hydrolase Chain: A: PDB Molecule: beta-glucosidase; PDBTitle: crystal structure of beta-glucosidase from termite neotermitess2 koshunensis in complex with para-nitrophenyl-beta-d-glucopyranoside
86	d1o57a2	Alignment	not modelled	13.9	18	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
87	d1xlma	Alignment	not modelled	13.8	10	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
88	c1jscA	Alignment	not modelled	13.7	13	PDB header: lyase Chain: A: PDB Molecule: acetohydroxy-acid synthase; PDBTitle: crystal structure of the catalytic subunit of yeast2 acetohydroxyacid synthase: a target for herbicidal3 inhibitors
89	c2p6pB	Alignment	not modelled	13.6	21	PDB header: transferase Chain: B: PDB Molecule: glycosyl transferase; PDBTitle: x-ray crystal structure of c-c bond-forming dtdp-d-olivose-transferase2 urdg2
90	c1ecjB	Alignment	not modelled	13.6	17	PDB header: transferase Chain: B: PDB Molecule: glutamine phosphoribosylpyrophosphate PDBTitle: escherichia coli glutamine phosphoribosylpyrophosphate2 (prpp) amidotransferase complexed with 2 amp per tetramer
91	d1efpa1	Alignment	not modelled	13.4	15	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits
92	d1e4mm	Alignment	not modelled	13.3	10	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Family 1 of glycosyl hydrolase
93	c3khtA	Alignment	not modelled	12.8	20	PDB header: signaling protein Chain: A: PDB Molecule: response regulator; PDBTitle: crystal structure of response regulator from hahella chejuensis
94	d1c0pa1	Alignment	not modelled	12.7	24	Fold: Nucleotide-binding domain Superfamily: Nucleotide-binding domain Family: D-aminoacid oxidase, N-terminal domain
95	c2c4kd	Alignment	not modelled	12.5	30	PDB header: regulatory protein Chain: D: PDB Molecule: phosphoribosyl pyrophosphate synthetase- PDBTitle: crystal structure of human phosphoribosylpyrophosphate2 synthetase-associated protein 39 (pap39)
96	c2jf7B	Alignment	not modelled	12.4	15	PDB header: hydrolase Chain: B: PDB Molecule: strictosidine-o-beta-d-glucosidase; PDBTitle: structure of strictosidine glucosidase
97	c1c0iA	Alignment	not modelled	12.3	27	PDB header: oxidoreductase Chain: A: PDB Molecule: d-amino acid oxidase; PDBTitle: crystal structure of d-amino acid oxidase in complex with2 two anthranilate molecules
98	d1bxca	Alignment	not modelled	12.1	13	Fold: TIM beta/alpha-barrel Superfamily: Xylose isomerase-like Family: Xylose isomerase
99	d1dkua2	Alignment	not modelled	12.0	24	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like