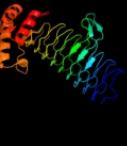
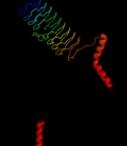


Phyre²

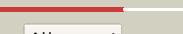
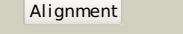
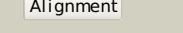
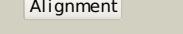
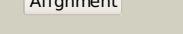
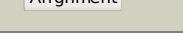
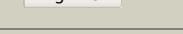
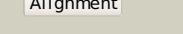
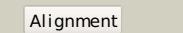
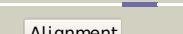
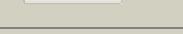
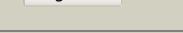
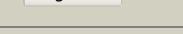
Email	i.a.kelley@imperial.ac.uk
Description	P0A722
Date	Thu Jan 5 11:04:33 GMT 2012
Unique Job ID	0c9226be36a96b38

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2jf2a1	Alignment		100.0	100	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: UDP N-acetylglucosamine acyltransferase
2	c3i3aC_	Alignment		100.0	41	PDB header: transferase Chain: C: PDB Molecule: acyl-[acyl-carrier-protein]-udp-n- PDBTitle: structural basis for the sugar nucleotide and acyl chain2 selectivity of leptospira interrogans lpxa
3	d1j2za_	Alignment		100.0	40	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: UDP N-acetylglucosamine acyltransferase
4	c3r0sA_	Alignment		100.0	36	PDB header: transferase Chain: A: PDB Molecule: acyl-[acyl-carrier-protein]-udp-n-acetylglucosamine o- PDBTitle: udp-n-acetylglucosamine acyltransferase from campylobacter jejuni
5	c2iu9C_	Alignment		100.0	21	PDB header: transferase Chain: C: PDB Molecule: udp-3-o-[3-hydroxymyristoyl] glucosamine PDBTitle: chlamydia trachomatis lpxd with 100mm udpglcnaac (complex ii)
6	c3pmoA_	Alignment		100.0	20	PDB header: transferase Chain: A: PDB Molecule: udp-3-o-[3-hydroxymyristoyl] glucosamine n-acyltransferase; PDBTitle: the structure of lpxd from pseudomonas aeruginosa at 1.3 a resolution
7	c3eh0C_	Alignment		100.0	24	PDB header: transferase Chain: C: PDB Molecule: udp-3-o-[3-hydroxymyristoyl] glucosamine n- PDBTitle: crystal structure of lpxd from escherichia coli
8	c3fsbb_	Alignment		100.0	21	PDB header: transferase Chain: B: PDB Molecule: qdtc; PDBTitle: crystal structure of qdtc, the dtdp-3-amino-3,6-dideoxy-d-2 glucose n-acetyl transferase from thermoanaerobacterium3 thermosaccharolyticum in complex with coa and dtdp-3-amino-4 quinovose
9	d1g97a1	Alignment		100.0	19	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: GlmU C-terminal domain-like
10	d1mr7a_	Alignment		100.0	18	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
11	c3c8vA_	Alignment		100.0	14	PDB header: transferase Chain: A: PDB Molecule: putative acetyltransferase; PDBTitle: crystal structure of putative acetyltransferase (yp_390128.1) from2 desulfovibrio desulfuricans g20 at 2.28 a resolution

12	d2oi6a1			100.0	14	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: GlmU C-terminal domain-like
13	c3mghD			100.0	29	PDB header: transferase Chain: D: PDB Molecule: lipopolysaccharides biosynthesis acetyltransferase; PDBTitle: crystal structure of the 3-n-acetyl transferase wlbb from bordetella2 petrii in complex with coa and udp-3-amino-2-acetamido-2,3-dideoxy3 glucuronic acid
14	c1hm8A			100.0	20	PDB header: transferase Chain: A: PDB Molecule: udp-n-acetylglucosamine-1-phosphate uridyltransferase; PDBTitle: crystal structure of s.pneumoniae n-acetylglucosamine-1-phosphate2 uridyltransferase, glmu, bound to acetyl coenzyme a
15	c3jqqB			99.9	20	PDB header: transferase Chain: B: PDB Molecule: polysialic acid o-acetyltransferase; PDBTitle: crystal strucuture of the polysia specific acetyltransferase neuo
16	c2wlgA			99.9	16	PDB header: transferase Chain: A: PDB Molecule: polysialic acid o-acetyltransferase; PDBTitle: crystallographic analysis of the polysialic acid o-2 acetyltransferase oatwy
17	d1xata			99.9	21	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
18	c3cj8B			99.9	27	PDB header: transferase Chain: B: PDB Molecule: 2,3,4,5-tetrahydropyridine-2-carboxylate n- PDBTitle: crystal structure of 2,3,4,5-tetrahydropyridine-2-carboxylate n-2 succinyltransferase from enterococcus faecalis v583
19	c2v0hA			99.9	17	PDB header: transferase Chain: A: PDB Molecule: bifunctional protein glmu; PDBTitle: characterization of substrate binding and catalysis of the2 potential antibacterial target n-acetylglucosamine-1-3 phosphate uridyltransferase (glm)
20	d2f9ca1			99.9	15	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: YdcK-like
21	c3eevC		not modelled	99.9	18	PDB header: transferase Chain: C: PDB Molecule: chloramphenicol acetyltransferase; PDBTitle: crystal structure of chloramphenicol acetyltransferase vca0300 from2 vibrio cholerae o1 biovar eltor
22	c2oi6A		not modelled	99.9	16	PDB header: transferase Chain: A: PDB Molecule: bifunctional protein glmu; PDBTitle: e. coli glmu- complex with udp-glcnac, coa and glcn-1-po4
23	d3bswa1		not modelled	99.9	26	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: PglD-like
24	c3ectA		not modelled	99.9	24	PDB header: transferase Chain: A: PDB Molecule: hexapeptide-repeat containing-acetyltransferase; PDBTitle: crystal structure of the hexapeptide-repeat containing-2 acetyltransferase vca0836 from vibrio cholerae
25	c3fttA		not modelled	99.9	21	PDB header: transferase Chain: A: PDB Molecule: putative acetyltransferase sacol2570; PDBTitle: crystal structure of the galactoside o-acetyltransferase2 from staphylococcus aureus
26	d1krra		not modelled	99.9	22	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
27	c3srtB		not modelled	99.9	26	PDB header: transferase Chain: B: PDB Molecule: maltose o-acetyltransferase; PDBTitle: the crystal structure of a maltose o-acetyltransferase from2 clostridium difficile 630
28	c2ic7A		not modelled	99.9	22	PDB header: transferase Chain: A: PDB Molecule: maltose transacetylase; PDBTitle: crystal structure of maltose transacetylase from2 geobacillus kaustophilus

29	c3r3ra	Alignment	not modelled	99.9	20	PDB header: transferase Chain: A: PDB Molecule: ferripyochelin binding protein; PDBTitle: structure of the yrda ferripyochelin binding protein from salmonella2 enterica
30	d1qrea	Alignment	not modelled	99.9	13	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: gamma-carbonic anhydrase-like
31	c1qreA	Alignment	not modelled	99.9	13	PDB header: lyase Chain: A: PDB Molecule: carbonic anhydrase; PDBTitle: a closer look at the active site of gamma-carbonic anhydrases: high2 resolution crystallographic studies of the carbonic anhydrase from3 methanosc礼na thermophila
32	d1xhda	Alignment	not modelled	99.9	21	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: gamma-carbonic anhydrase-like
33	dlocxa	Alignment	not modelled	99.9	30	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Galactoside acetyltransferase-like
34	d1v3wa	Alignment	not modelled	99.9	20	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: gamma-carbonic anhydrase-like
35	c3eg4A	Alignment	not modelled	99.9	21	PDB header: transferase Chain: A: PDB Molecule: 2,3,4,5-tetrahydropyridine-2,6-dicarboxylate n- PDBTitle: crystal structure of 2,3,4,5-tetrahydropyridine-2-2 carboxylate n-succinyltransferase from brucella melitensis3 biovar abortus 2308
36	c3rlwA	Alignment	not modelled	99.9	15	PDB header: lyase Chain: A: PDB Molecule: carbonic anhydrase; PDBTitle: crystal structure of a carbonic anhydrase from a crude oil degrading2 psychrophilic library
37	d1t3da	Alignment	not modelled	99.9	31	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Serine acetyltransferase
38	c1t3dB	Alignment	not modelled	99.9	31	PDB header: transferase Chain: B: PDB Molecule: serine acetyltransferase; PDBTitle: crystal structure of serine acetyltransferase from e.coli at 2.2a
39	d1ssqa	Alignment	not modelled	99.9	29	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Serine acetyltransferase
40	c3ixcA	Alignment	not modelled	99.9	20	PDB header: transferase Chain: A: PDB Molecule: hexapeptide transferase family protein; PDBTitle: crystal structure of hexapeptide transferase family protein from2 anaplasma phagocytophylum
41	c3mc4A	Alignment	not modelled	99.9	25	PDB header: transferase Chain: A: PDB Molecule: ww/rsp5/wwp domain:bacterial transferase PDBTitle: crystal structure of ww/rsp5/wwp domain: bacterial2 transferase hexapeptide repeat: serine o-acetyltransferase3 from brucella melitensis
42	d3tdta	Alignment	not modelled	99.8	24	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: Tetrahydrodipicolinate-N-succinyltransferase, THDP-succinyltransferase, DapD
43	c2ggqA	Alignment	not modelled	99.8	15	PDB header: transferase Chain: A: PDB Molecule: 401aa long hypothetical glucose-1-phosphate PDBTitle: complex of hypothetical glucose-1-phosphate thymidyltransferase from2 sulfolobus tokodaii
44	c3q1xA	Alignment	not modelled	99.8	30	PDB header: transferase Chain: A: PDB Molecule: serine acetyltransferase; PDBTitle: crystal structure of entamoeba histolytica serine acetyltransferase 12 in complex with l-serine
45	c3f1xA	Alignment	not modelled	99.8	31	PDB header: transferase Chain: A: PDB Molecule: serine acetyltransferase; PDBTitle: three dimensional structure of the serine acetyltransferase from2 bacteroides vulgatus, northeast structural genomics consortium target3 bvr62.
46	c3kwda	Alignment	not modelled	99.7	18	PDB header: lyase, protein binding, photosynthesis Chain: A: PDB Molecule: carbon dioxide concentrating mechanism protein; PDBTitle: inactive truncation of the beta-carboxysomal gamma-carbonic anhydrase,2 cmmm, form 1
47	c3fsyC	Alignment	not modelled	99.6	16	PDB header: transferase Chain: C: PDB Molecule: tetrahydrodipicolinate n-succinyltransferase; PDBTitle: structure of tetrahydrodipicolinate n-succinyltransferase2 (rv1201c;dapd) in complex with succinyl-coa from mycobacterium3 tuberculosis
48	c3d98A	Alignment	not modelled	99.4	17	PDB header: transferase Chain: A: PDB Molecule: bifunctional protein glmu; PDBTitle: crystal structure of glmu from mycobacterium tuberculosis, ligand-free2 form
49	c2qkxA	Alignment	not modelled	99.3	15	PDB header: transferase Chain: A: PDB Molecule: bifunctional protein glmu; PDBTitle: n-acetyl glucosamine 1-phosphate uridylyltransferase from mycobacterium2 tuberculosis complex with n-acetyl glucosamine 1-phosphate
50	d1yp2a1	Alignment	not modelled	99.3	16	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: GlmU C-terminal domain-like
51	c2rijA	Alignment	not modelled	99.2	20	PDB header: transferase Chain: A: PDB Molecule: putative 2,3,4,5-tetrahydropyridine-2-carboxylate n- PDBTitle: crystal structure of a putative 2,3,4,5-tetrahydropyridine-2-2 carboxylate n-succinyltransferase (cj1605c, dapd) from campylobacter3 jejuni at 1.90 a resolution

52	c1yp3C_		Alignment	not modelled	99.1	13	PDB header: transferase Chain: C: PDB Molecule: glucose-1-phosphate adenylyltransferase small PDBTitle: crystal structure of potato tuber adp-glucose2 pyrophosphorylase in complex with atp
53	d1fxja1		Alignment	not modelled	99.0	18	Fold: Single-stranded left-handed beta-helix Superfamily: Trimeric LpxA-like enzymes Family: GlmU C-terminal domain-like
54	c1fwyA_		Alignment	not modelled	98.7	18	PDB header: transferase Chain: A: PDB Molecule: udp-n-acetylglucosamine pyrophosphorylase; PDBTitle: crystal structure of n-acetylglucosamine 1-phosphate2 uridyltransferase bound to udp-glcnac
55	c3brkX_		Alignment	not modelled	98.4	14	PDB header: transferase Chain: X: PDB Molecule: glucose-1-phosphate adenylyltransferase; PDBTitle: crystal structure of adp-glucose pyrophosphorylase from2 agrobacterium tumefaciens
56	d1hbga_		Alignment	not modelled	39.0	18	Fold: Globin-like Superfamily: Globin-like Family: Globins
57	d1jl6a_		Alignment	not modelled	38.5	16	Fold: Globin-like Superfamily: Globin-like Family: Globins
58	c3nepX_		Alignment	not modelled	32.9	6	PDB header: oxidoreductase Chain: X: PDB Molecule: malate dehydrogenase; PDBTitle: 1.55a resolution structure of malate dehydrogenase from salinibacter ruber
59	d1jl7a_		Alignment	not modelled	31.9	18	Fold: Globin-like Superfamily: Globin-like Family: Globins
60	d1x9fb_		Alignment	not modelled	30.0	12	Fold: Globin-like Superfamily: Globin-like Family: Globins
61	c3evrA_		Alignment	not modelled	28.8	16	PDB header: signaling protein Chain: A: PDB Molecule: myosin light chain kinase, green fluorescent PDBTitle: crystal structure of calcium bound monomeric gcamp2
62	d2qmma1		Alignment	not modelled	28.7	26	Fold: alpha/beta knot Superfamily: alpha/beta knot Family: AF1056-like
63	d1itha_		Alignment	not modelled	24.5	21	Fold: Globin-like Superfamily: Globin-like Family: Globins
64	d1ez4a2		Alignment	not modelled	21.8	11	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: Lactate & malate dehydrogenases, C-terminal domain
65	c1mldA_		Alignment	not modelled	21.6	18	PDB header: oxidoreductase(nad(a)-choh(d)) Chain: A: PDB Molecule: malate dehydrogenase; PDBTitle: refined structure of mitochondrial malate dehydrogenase2 from porcine heart and the consensus structure for3 dicarboxylic acid oxidoreductases
66	c2da4A_		Alignment	not modelled	21.4	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein dkfp686k21156; PDBTitle: solution structure of the homeobox domain of the2 hypothetical protein, dkfp686k21156
67	c1yhuX_		Alignment	not modelled	20.7	9	PDB header: oxygen storage/transport Chain: X: PDB Molecule: hemoglobin b2 chain; PDBTitle: crystal structure of riftia pachyptila c1 hemoglobin reveals novel2 assembly of 24 subunits.
68	c1yhuL_		Alignment	not modelled	18.6	12	PDB header: oxygen storage/transport Chain: J: PDB Molecule: giant hemoglobins b chain; PDBTitle: crystal structure of riftia pachyptila c1 hemoglobin reveals novel2 assembly of 24 subunits.
69	c2jmlA_		Alignment	not modelled	18.3	26	PDB header: transcription Chain: A: PDB Molecule: dna binding domain/transcriptional regulator; PDBTitle: solution structure of the n-terminal domain of cara repressor
70	c1ez4B_		Alignment	not modelled	17.3	11	PDB header: oxidoreductase Chain: B: PDB Molecule: lactate dehydrogenase; PDBTitle: crystal structure of non-allosteric l-lactate dehydrogenase2 from lactobacillus pentosus at 2.3 angstrom resolution
71	c1yhuA_		Alignment	not modelled	17.1	7	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin a1 chain; PDBTitle: crystal structure of riftia pachyptila c1 hemoglobin reveals novel2 assembly of 24 subunits.
72	c3n0IA_		Alignment	not modelled	17.1	17	PDB header: transferase Chain: A: PDB Molecule: serine hydroxymethyltransferase; PDBTitle: crystal structure of serine hydroxymethyltransferase from2 campylobacter jejuni
73	d1y9ia_		Alignment	not modelled	17.0	20	Fold: YutG-like Superfamily: YutG-like Family: YutG-like
74	c3g2bA_		Alignment	not modelled	16.9	12	PDB header: biosynthetic protein Chain: A: PDB Molecule: coenzyme pqq synthesis protein d; PDBTitle: crystal structure of pqqd from xanthomonas campestris
75	d1wh5a_		Alignment	not modelled	16.6	19	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
76	c1k5hB_		Alignment	not modelled	15.6	9	PDB header: oxidoreductase Chain: B: PDB Molecule: 1-deoxy-d-xylulose-5-phosphate reductoisomerase; PDBTitle: 1-deoxy-d-xylulose-5-phosphate reductoisomerase

77	d1hyha2		Alignment	not modelled	15.2	8	Fold: LDH C-terminal domain-like Superfamily: LDH C-terminal domain-like Family: Lactate & malate dehydrogenases, C-terminal domain
78	c3au9A_		Alignment	not modelled	14.9	18	PDB header: isomerase/isomerase inhibitor Chain: A: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: crystal structure of the quaternary complex-1 of an isomerase
79	d2a1ja1		Alignment	not modelled	14.9	17	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like
80	c2eghA_		Alignment	not modelled	14.5	9	PDB header: oxidoreductase Chain: A: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: crystal structure of 1-deoxy-d-xylulose 5-phosphate reductoisomerase2 complexed with a magnesium ion, nadph and fosmidomycin
81	c2jcyA_		Alignment	not modelled	14.5	23	PDB header: oxidoreductase Chain: A: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: x-ray structure of mutant 1-deoxy-d-xylulose 5-phosphate2 reductoisomerase, dxr, rv2870c, from mycobacterium3 tuberculosis
82	c3itcA_		Alignment	not modelled	14.4	16	PDB header: hydrolase Chain: A: PDB Molecule: renal dipeptidase; PDBTitle: crystal structure of sco3058 with bound citrate and glycerol
83	d1itua_		Alignment	not modelled	14.4	14	Fold: TIM beta/alpha-barrel Superfamily: Metallo-dependent hydrolases Family: Renal dipeptidase
84	c1r0ID_		Alignment	not modelled	14.1	14	PDB header: oxidoreductase Chain: D: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: 1-deoxy-d-xylulose 5-phosphate reductoisomerase from2 zymomonas mobilis in complex with nadph
85	d1lhta_		Alignment	not modelled	14.0	14	Fold: Globin-like Superfamily: Globin-like Family: Globins
86	c1tlqA_		Alignment	not modelled	13.9	17	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein ypjq; PDBTitle: crystal structure of protein ypjq from bacillus subtilis, pfam duf64
87	d1tqa_		Alignment	not modelled	13.9	17	Fold: YutG-like Superfamily: YutG-like Family: YutG-like
88	c2d2mB_		Alignment	not modelled	13.9	9	PDB header: oxygen storage/transport Chain: B: PDB Molecule: giant hemoglobin, a2(a5) globin chain; PDBTitle: structure of an extracellular giant hemoglobin of the2 gutless beard worm oligobrachia mashikoi
89	c2hjrK_		Alignment	not modelled	13.3	9	PDB header: oxidoreductase Chain: K: PDB Molecule: malate dehydrogenase; PDBTitle: crystal structure of cryptosporidium parvum malate2 dehydrogenase
90	d2vifa1		Alignment	not modelled	13.2	14	Fold: Globin-like Superfamily: Globin-like Family: Globins
91	d3bzka3		Alignment	not modelled	13.0	9	Fold: Tex N-terminal region-like Superfamily: Tex N-terminal region-like Family: Tex N-terminal region-like
92	d2c1xa1		Alignment	not modelled	12.6	7	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDPGT-like
93	c1x3kA_		Alignment	not modelled	12.4	17	PDB header: oxygen storage/transport Chain: A: PDB Molecule: hemoglobin component v; PDBTitle: crystal structure of a hemoglobin component (ta-v) from2 tokunagayusurika akamu
94	c2zs0A_		Alignment	not modelled	12.2	12	PDB header: oxygen storage, oxygen transport Chain: A: PDB Molecule: extracellular giant hemoglobin major globin subunit a1; PDBTitle: structural basis for the heterotropic and homotropic interactions of2 invertebrate giant hemoglobin
95	c2ld7A_		Alignment	not modelled	12.0	15	PDB header: transcription Chain: A: PDB Molecule: histone deacetylase complex subunit sap30; PDBTitle: solution structure of the msin3a pah3-sap30 sid complex
96	d1x9fd_		Alignment	not modelled	12.0	9	Fold: Globin-like Superfamily: Globin-like Family: Globins
97	d2pv7a1		Alignment	not modelled	11.7	16	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: TyrA dimerization domain-like
98	c3a14B_		Alignment	not modelled	11.7	9	PDB header: oxidoreductase Chain: B: PDB Molecule: 1-deoxy-d-xylulose 5-phosphate reductoisomerase; PDBTitle: crystal structure of dxr from thermotoga maritima, in complex with2 nadph
99	c2d4aC_		Alignment	not modelled	11.4	10	PDB header: oxidoreductase Chain: C: PDB Molecule: malate dehydrogenase; PDBTitle: structure of the malate dehydrogenase from aeropyrum pernix