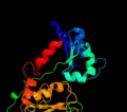
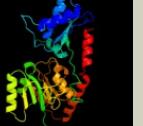
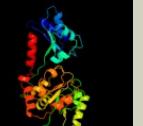
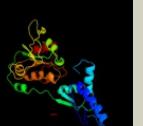
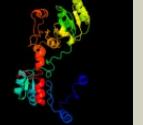


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P37749
Date	Thu Jan 5 11:57:25 GMT 2012
Unique Job ID	18618c2d817b7802

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3rhzB_			100.0	17	PDB header: transferase Chain: B; PDB Molecule: nucleotide sugar synthetase-like protein; PDBTitle: structure and functional analysis of a new subfamily of 2 glycosyltransferases required for glycosylation of serine-rich 3 streptococcal adhesions
2	c3oy2A_			100.0	11	PDB header: viral protein,transferase Chain: A; PDB Molecule: glycosyltransferase b736I; PDBTitle: crystal structure of a putative glycosyltransferase from paramecium2 bursaria chlorella virus ny2a
3	c3s29C_			100.0	13	PDB header: transferase Chain: C; PDB Molecule: sucrose synthase 1; PDBTitle: the crystal structure of sucrose synthase-1 from arabidopsis thaliana2 and its functional implications.
4	c2r60A_			100.0	12	PDB header: transferase Chain: A; PDB Molecule: glycosyl transferase, group 1; PDBTitle: structure of apo sucrose phosphate synthase (sps) of halothermothrix orenii
5	c2jjmH_			100.0	11	PDB header: transferase Chain: H; PDB Molecule: glycosyl transferase, group 1 family protein; PDBTitle: crystal structure of a family gt4 glycosyltransferase from2 bacillus anthracis off ba1558.
6	c2xmpB_			100.0	16	PDB header: sugar binding protein Chain: B; PDB Molecule: trehalose-synthase tret; PDBTitle: crystal structure of trehalose synthase tret mutant e326a2 from p.horishiki in complex with udp
7	c2x6rA_			100.0	15	PDB header: isomerase Chain: A; PDB Molecule: trehalose-synthase tret; PDBTitle: crystal structure of trehalose synthase tret from p.2 horikoshi produced by soaking in trehalose
8	c3c4vB_			100.0	9	PDB header: transferase Chain: B; PDB Molecule: predicted glycosyltransferases; PDBTitle: structure of the retaining glycosyltransferase msha:the first step in mycothiol biosynthesis. organism:3 corynebacterium glutamicum : complex with udp and 1l-ins-1-4 p.
9	c3okaA_			100.0	9	PDB header: transferase Chain: A; PDB Molecule: gdp-mannose-dependent alpha-(1-6)-phosphatidyl inositol PDBTitle: crystal structure of corynebacterium glutamicum pimb' in complex with2 gdp-man (triclinic crystal form)
10	d2bis1			99.9	11	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Glycosyl transferases group 1
11	d2iw1a1			99.9	9	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Glycosyl transferases group 1

12	c1uguB	Alignment		99.9	15	PDB header: synthase Chain: B; PDB Molecule: alpha, alpha-trehalose-phosphate synthase; PDBTitle: trehalose-6-phosphate from e. coli bound with udp-glucose.
13	c2gejA	Alignment		99.9	10	PDB header: transferase Chain: A; PDB Molecule: phosphatidylinositol mannosyltransferase (pima); PDBTitle: crystal structure of phosphatidylinositol mannosyltransferase (pima)2 from mycobacterium smegmatis in complex with gdp-man
14	c2gzsA	Alignment		99.9	12	PDB header: transferase Chain: A; PDB Molecule: glycogen synthase; PDBTitle: crystal structure of wild-type e.coli gs in complex with adp2 and glucose(wtgsb)
15	d1uqta	Alignment		99.9	14	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Trehalose-6-phosphate synthase, OtsA
16	d1rzua	Alignment		99.9	10	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Glycosyl transferases group 1
17	c2x0dA	Alignment		99.9	7	PDB header: transferase Chain: A; PDB Molecule: wsaf; PDBTitle: apo structure of wsaf
18	c3nb0A	Alignment		99.9	11	PDB header: transferase Chain: A; PDB Molecule: glycogen [starch] synthase isoform 2; PDBTitle: glucose-6-phosphate activated form of yeast glycogen synthase
19	c3o3cD	Alignment		99.9	13	PDB header: transferase Chain: D; PDB Molecule: glycogen [starch] synthase isoform 2; PDBTitle: glycogen synthase basal state udp complex
20	c2xcuC	Alignment		99.9	13	PDB header: transferase Chain: C; PDB Molecule: 3-deoxy-d-manno-2-octulosonic acid transferase; PDBTitle: membrane-embedded monofunctional glycosyltransferase waaa of aquifex2 aeolicus, comlex with cmp
21	c3ot5D	Alignment	not modelled	99.9	8	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
22	c2q6vA	Alignment	not modelled	99.9	13	PDB header: transferase Chain: A; PDB Molecule: glucuronosyltransferase gumk; PDBTitle: crystal structure of gumk in complex with udp
23	c3dzca	Alignment	not modelled	99.8	10	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	d1f6da	Alignment	not modelled	99.8	11	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDP-N-acetylglucosamine 2-epimerase
25	d1v4va	Alignment	not modelled	99.8	7	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDP-N-acetylglucosamine 2-epimerase
26	c2iv3B	Alignment	not modelled	99.8	10	PDB header: transferase Chain: B; PDB Molecule: glycosyltransferase; PDBTitle: crystal structure of avigt4, a glycosyltransferase involved2 in avilamycin a biosynthesis
27	d2f9fa1	Alignment	not modelled	99.8	10	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Glycosyl transferases group 1
28	d1o6ca	Alignment	not modelled	99.7	9	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDP-N-acetylglucosamine 2-epimerase
29	c3qhpB	Alignment	not modelled	99.7	12	PDB header: transferase Chain: B; PDB Molecule: type 1 capsular polysaccharide biosynthesis protein j

						PDBTitle: crystal structure of the catalytic domain of cholesterol-alpha-2 glucosyltransferase from helicobacter pylori
30	d1f0ka	Alignment	not modelled	99.6	9	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Peptidoglycan biosynthesis glycosyltransferase MurG
31	d2bfwa1	Alignment	not modelled	99.5	11	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Glycosyl transferases group 1
32	c2vsnB	Alignment	not modelled	99.5	10	PDB header: transferase Chain: B: PDB Molecule: xcogt; PDBTitle: structure and topological arrangement of an o-glcnac2 transferase homolog: insight into molecular control of3 intracellular glycosylation
33	c3othB	Alignment	not modelled	99.4	8	PDB header: transferase/antibiotic Chain: B: PDB Molecule: calg1; PDBTitle: crystal structure of calg1, calicheamicin glycosyltransferase, tdp2 and calicheamicin alpha3i bound form
34	c3pe3D	Alignment	not modelled	99.4	9	PDB header: transferase Chain: D: PDB Molecule: udp-n-acetylglucosamine--peptide n- PDBTitle: structure of human o-glcnac transferase and its complex with a peptide2 substrate
35	c3ia7A	Alignment	not modelled	99.3	10	PDB header: transferase Chain: A: PDB Molecule: calg4; PDBTitle: crystal structure of calg4, the calicheamicin glycosyltransferase
36	c3iaaB	Alignment	not modelled	99.3	9	PDB header: transferase Chain: B: PDB Molecule: calg2; PDBTitle: crystal structure of calg2, calicheamicin glycosyltransferase, tdp2 bound form
37	c2iyaB	Alignment	not modelled	98.9	17	PDB header: transferase Chain: B: PDB Molecule: oleandomycin glycosyltransferase; PDBTitle: the crystal structure of macrolide glycosyltransferases: a2 blueprint for antibiotic engineering
38	c2p6pB	Alignment	not modelled	98.9	15	PDB header: transferase Chain: B: PDB Molecule: glycosyl transferase; PDBTitle: x-ray crystal structure of c-c bond-forming dtdp-d-olivose-transferase2 urdg2
39	c3d0qB	Alignment	not modelled	98.9	9	PDB header: transferase Chain: B: PDB Molecule: protein calg3; PDBTitle: crystal structure of calg3 from micromonospora echinospora determined2 in space group i222
40	c2iyfA	Alignment	not modelled	98.8	9	PDB header: transferase Chain: A: PDB Molecule: oleandomycin glycosyltransferase; PDBTitle: the crystal structure of macrolide glycosyltransferases: a2 blueprint for antibiotic engineering
41	d1iira	Alignment	not modelled	98.8	12	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Gtf glycosyltransferase
42	d1pn3a	Alignment	not modelled	98.4	18	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Gtf glycosyltransferase
43	d1rrva	Alignment	not modelled	98.3	9	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Gtf glycosyltransferase
44	d2c1xa1	Alignment	not modelled	98.1	14	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDPGT-like
45	c3hbja	Alignment	not modelled	98.0	7	PDB header: transferase Chain: A: PDB Molecule: flavonoid 3-o-glucosyltransferase; PDBTitle: structure of ugt78g1 complexed with udp
46	d2pq6a1	Alignment	not modelled	98.0	17	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDPGT-like
47	c3l7mC	Alignment	not modelled	97.9	14	PDB header: structural protein Chain: C: PDB Molecule: teichoic acid biosynthesis protein f; PDBTitle: structure of the wall teichoic acid polymerase tagf, h548a
48	d2vcha1	Alignment	not modelled	97.5	15	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDPGT-like
49	d2acva1	Alignment	not modelled	97.5	15	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: UDPGT-like
50	c2o6IA	Alignment	not modelled	97.0	11	PDB header: transferase Chain: A: PDB Molecule: udp-glucuronosyltransferase 2b7; PDBTitle: crystal structure of the udp-glucuronic acid binding domain2 of the human drug metabolizing udp-glucuronosyltransferase3 2b7
51	c3g3hA	Alignment	not modelled	95.9	10	PDB header: transferase Chain: A: PDB Molecule: hmwl1c-like glycosyltransferase; PDBTitle: crystal structure of the actinobacillus pleuropneumoniae hmw1c2 glycosyltransferase in complex with udp-glc
52	c3hbmA	Alignment	not modelled	95.4	9	PDB header: hydrolase Chain: A: PDB Molecule: udp-sugar hydrolase; PDBTitle: crystal structure of pseg from campylobacter jejuni
53	c2jzcA	Alignment	not modelled	80.6	6	PDB header: transferase Chain: A: PDB Molecule: udp-n-acetylglucosamine transferase subunit PDBTitle: nmr solution structure of alg13: the sugar donor subunit of2 a yeast n-acetylglucosamine transferase. northeast3 structural genomics consortium target yg1
54	c2iz6A	Alignment	not modelled	78.1	17	PDB header: metal transport Chain: A: PDB Molecule: molybdenum cofactor carrier protein; PDBTitle: structure of the chlamydomonas rheinhardtii moco carrier2 protein

55	d1pswa_	Alignment	not modelled	73.9	14	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: ADP-heptose LPS heptosyltransferase II
56	d2nzwa_1	Alignment	not modelled	73.5	9	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Fuct-like
57	d2gj4a1	Alignment	not modelled	50.3	8	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Oligosaccharide phosphorylase
58	d1qyia_	Alignment	not modelled	49.4	8	Fold: HAD-like Superfamily: HAD-like Family: Hypothetical protein MW1667 (SA1546)
59	c2r1zB_	Alignment	not modelled	47.8	13	PDB header: antitumor protein Chain: B: PDB Molecule: brca1-associated ring domain protein 1; PDBTitle: crystal structure of the bard1 brct repeat
60	d1rcua_	Alignment	not modelled	46.9	18	Fold: MCP/YpsA-like Superfamily: MCP/YpsA-like Family: MoCo carrier protein-like
61	c1rcuB_	Alignment	not modelled	46.9	18	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: conserved hypothetical protein vt76; PDBTitle: x-ray structure of tm1055 northeast structural genomics2 consortium target vt76
62	d1j5pa4	Alignment	not modelled	43.9	10	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
63	d1oi7a2	Alignment	not modelled	43.6	19	Fold: Flavodoxin-like Superfamily: Succinyl-CoA synthetase domains Family: Succinyl-CoA synthetase domains
64	c2c4mA_	Alignment	not modelled	42.1	9	PDB header: transferase Chain: A: PDB Molecule: glycogen phosphorylase; PDBTitle: starch phosphorylase: structural studies explain oxyanion-2 dependent kinetic stability and regulatory control.
65	c3ddsB_	Alignment	not modelled	41.8	6	PDB header: transferase Chain: B: PDB Molecule: glycogen phosphorylase, liver form; PDBTitle: crystal structure of glycogen phosphorylase complexed with an2 anthranilimide based inhibitor gsk261
66	c1oi7A_	Alignment	not modelled	40.7	19	PDB header: synthetase Chain: A: PDB Molecule: succinyl-coa synthetase alpha chain; PDBTitle: the crystal structure of succinyl-coa synthetase alpha2 subunit from thermus thermophilus
67	c1nj2A_	Alignment	not modelled	40.7	10	PDB header: ligase Chain: A: PDB Molecule: proline-trna synthetase; PDBTitle: crystal structure of prolyl-trna synthetase from methanothermobacter2 thermautrophicus
68	d1l5wa_	Alignment	not modelled	37.5	6	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Oligosaccharide phosphorylase
69	c3bioB_	Alignment	not modelled	30.0	8	PDB header: oxidoreductase Chain: B: PDB Molecule: oxidoreductase, gfo/idh/moca family; PDBTitle: crystal structure of oxidoreductase (gfo/idh/moca family member) from porphyromonas gingivalis w83
70	d2atia1	Alignment	not modelled	28.3	8	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Oligosaccharide phosphorylase
71	c3iruA_	Alignment	not modelled	26.5	9	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: phoshonoacetaldehyde hydrolase like protein; PDBTitle: crystal structure of phoshonoacetaldehyde hydrolase like protein from oleispira antarctica
72	c3gndC_	Alignment	not modelled	26.4	14	PDB header: lyase Chain: C: PDB Molecule: aldolase lsrf; PDBTitle: crystal structure of e. coli lsrf in complex with ribulose-5-phosphate
73	c3qvqB_	Alignment	not modelled	23.9	11	PDB header: hydrolase Chain: B: PDB Molecule: phosphodiesterase olei02445; PDBTitle: the structure of an oleispira antarctica phosphodiesterase olei024452 in complex with the product sn-glycerol-3-phosphate
74	c2pz0B_	Alignment	not modelled	22.5	11	PDB header: hydrolase Chain: B: PDB Molecule: glycerophosphoryl diester phosphodiesterase; PDBTitle: crystal structure of glycerophosphodiester phosphodiesterase (gdpd)2 from t. tengcongensis
75	d1yypa_	Alignment	not modelled	22.3	11	Fold: UDP-Glycosyltransferase/glycogen phosphorylase Superfamily: UDP-Glycosyltransferase/glycogen phosphorylase Family: Oligosaccharide phosphorylase
76	c2cokA_	Alignment	not modelled	20.6	5	PDB header: transferase Chain: A: PDB Molecule: poly [adp-ribose] polymerase-1; PDBTitle: solution structure of brct domain of poly(adp-ribose)2 polymerase-1
77	c3s6jC_	Alignment	not modelled	20.5	2	PDB header: hydrolase Chain: C: PDB Molecule: hydrolase, haloacid dehalogenase-like family; PDBTitle: the crystal structure of a hydrolase from pseudomonas syringae
78	d1x42a1	Alignment	not modelled	19.1	16	Fold: HAD-like Superfamily: HAD-like Family: HAD-related
79	c1h4tD_	Alignment	not modelled	19.0	7	PDB header: aminoacyl-trna synthetase Chain: D: PDB Molecule: prolyl-trna synthetase; PDBTitle: prolyl-trna synthetase from thermus thermophilus complexed2 with l-proline
						PDB header: hydrolase Chain: A: PDB Molecule: glycerophosphodiester

80	c3no3A_	Alignment	not modelled	18.9	14	pnoosphodiesterase; PDBTitle: crystal structure of a glycerophosphodiester phosphodiesterase2 (bdi_0402) from parabacteroides distasonis atcc 8503 at 1.89 a3 resolution
81	d1euca2	Alignment	not modelled	18.6	22	Fold: Flavodoxin-like Superfamily: Succinyl-CoA synthetase domains Family: Succinyl-CoA synthetase domains
82	c1y6gB_	Alignment	not modelled	18.5	10	PDB header: transferase/dna Chain: B: PDB Molecule: dna alpha-glucosyltransferase; PDBTitle: alpha-glucosyltransferase in complex with udp and a 13_mer2 dna containing a hmu base at 2.8 a resolution
83	d2gfh1	Alignment	not modelled	17.5	17	Fold: HAD-like Superfamily: HAD-like Family: beta-Phosphoglucomutase-like
84	d1olza_	Alignment	not modelled	17.5	10	Fold: TIM beta/alpha-barrel Superfamily: PLC-like phosphodiesterases Family: Glycerophosphoryl diester phosphodiesterase
85	c2qjhH_	Alignment	not modelled	17.3	18	PDB header: lyase Chain: H: PDB Molecule: putative aldolase mj0400; PDBTitle: m. jannaschii adh synthase covalently bound to2 dihydroacetone phosphate
86	d2csua2	Alignment	not modelled	17.3	6	Fold: Flavodoxin-like Superfamily: Succinyl-CoA synthetase domains Family: Succinyl-CoA synthetase domains
87	d1snna_	Alignment	not modelled	16.8	16	Fold: YrdC/RibB Superfamily: YrdC/RibB Family: 3,4-dihydroxy-2-butanone 4-phosphate synthase, DHBP synthase, RibB
88	d1nj8a1	Alignment	not modelled	16.4	10	Fold: Anticodon-binding domain-like Superfamily: Class II aaRS ABD-related Family: Anticodon-binding domain of Class II aaRS
89	c1l0ba_	Alignment	not modelled	15.3	12	PDB header: unknown function Chain: A: PDB Molecule: brca1; PDBTitle: crystal structure of rat brca1 tandem-brct region
90	c2vxca_	Alignment	not modelled	15.1	13	PDB header: cell cycle Chain: A: PDB Molecule: dna repair protein rhp9; PDBTitle: structure of the crb2-brct2 domain complex with2 phosphopeptide.
91	c2qtdA_	Alignment	not modelled	14.9	12	PDB header: oxidoreductase Chain: A: PDB Molecule: uncharacterized protein mj0327; PDBTitle: crystal structure of a putative dinitrogenase (mj0327) from2 methanocaldococcus jannaschii dsm at 1.70 a resolution
92	c2p76H_	Alignment	not modelled	14.9	11	PDB header: hydrolase Chain: H: PDB Molecule: glycerophosphoryl diester phosphodiesterase; PDBTitle: crystal structure of a glycerophosphodiester phosphodiesterase from2 staphylococcus aureus
93	c1zcoA_	Alignment	not modelled	14.3	14	PDB header: lyase Chain: A: PDB Molecule: 2-dehydro-3-deoxyphosphoheptone aldolase; PDBTitle: crystal structure of pyrococcus furiosus 3-deoxy-d-arabinofuranosyl 7-phosphate synthase
94	c3l40A_	Alignment	not modelled	14.1	17	PDB header: cell cycle Chain: A: PDB Molecule: brct-containing protein 1; PDBTitle: crystal structure of s. pombe brc1 brct5-brct6 domains
95	c2o55A_	Alignment	not modelled	13.5	7	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative glycerophosphodiester phosphodiesterase; PDBTitle: crystal structure of a putative glycerophosphodiester2 phosphodiesterase from galdieria sulphuraria
96	c3esqA_	Alignment	not modelled	13.3	5	PDB header: hydrolase Chain: A: PDB Molecule: d,d-heptose 1,7-bisphosphate phosphatase; PDBTitle: crystal structure of calcium-bound d,d-heptose 1,7-2 bisphosphate phosphatase from e. coli
97	d2gmwa1	Alignment	not modelled	13.3	5	Fold: HAD-like Superfamily: HAD-like Family: Histidinol phosphatase-like
98	d2nu7a2	Alignment	not modelled	13.0	25	Fold: Flavodoxin-like Superfamily: Succinyl-CoA synthetase domains Family: Succinyl-CoA synthetase domains
99	c1nj8C_	Alignment	not modelled	12.8	9	PDB header: ligase Chain: C: PDB Molecule: proline-trna synthetase; PDBTitle: crystal structure of prolyl-trna synthetase from2 methanocaldococcus janaschii