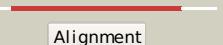
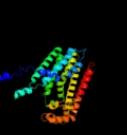
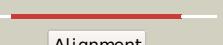
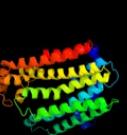


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P0AD57
Date	Wed Jan 25 15:20:25 GMT 2012
Unique Job ID	ac84e629da08a209

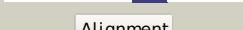
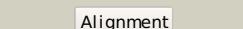
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3oyrB_			100.0	45	PDB header: transferase Chain: B: PDB Molecule: trans-isoprenyl diphosphate synthase; PDBTitle: crystal structure of polyprenyl synthase from caulobacter crescentus2 cb15 complexed with calcium and isoprenyl diphosphate
2	c3mzvB_			100.0	46	PDB header: transferase Chain: B: PDB Molecule: decaprenyl diphosphate synthase; PDBTitle: crystal structure of a decaprenyl diphosphate synthase from2 rhodobacter capsulatus
3	c1wy0A_			100.0	31	PDB header: transferase Chain: A: PDB Molecule: geranylgeranyl pyrophosphate synthetase; PDBTitle: crystal structure of geranylgeranyl pyrophosphate synthetase from2 pyrococcus horikoshii ot3
4	c3aqbD_			100.0	26	PDB header: transferase Chain: D: PDB Molecule: component b of hexaprenyl diphosphate synthase; PDBTitle: m. luteus b-p 26 heterodimeric hexaprenyl diphosphate synthase in2 complex with magnesium
5	c3nf2A_			100.0	25	PDB header: transferase Chain: A: PDB Molecule: putative polyprenyl synthetase; PDBTitle: crystal structure of polyprenyl synthetase from streptomyces2 coelicolor a3(2)
6	c1wmwA_			100.0	27	PDB header: transferase Chain: A: PDB Molecule: geranylgeranyl diphosphate synthetase; PDBTitle: crystal structure of geranylgeranyl diphosphate synthetase from thermus2 thermophilus
7	d1fpsa_			100.0	22	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Isoprenyl diphosphate synthases
8	c3n3dB_			100.0	27	PDB header: transferase Chain: B: PDB Molecule: geranylgeranyl pyrophosphate synthase; PDBTitle: crystal structure of geranylgeranyl pyrophosphate synthase from2 lactobacillus brevis atcc 367
9	c3aq0G_			100.0	32	PDB header: transferase Chain: G: PDB Molecule: geranyl diphosphate synthase; PDBTitle: ligand-bound form of arabidopsis medium/long-chain length prenyl2 pyrophosphate synthase (surface polar residue mutant)
10	c3cp6A_			100.0	21	PDB header: transferase Chain: A: PDB Molecule: farnesyl pyrophosphate synthetase; PDBTitle: crystal structure of human farnesyl diphosphate synthase (t201a2 mutant) complexed with mg and bisphosphonate inhibitor
11	c3lmdA_			100.0	31	PDB header: transferase Chain: A: PDB Molecule: geranylgeranyl pyrophosphate synthase; PDBTitle: crystal structure of geranylgeranyl pyrophosphate synthase2 from corynebacterium glutamicum atcc 13032

12	c2f94F	Alignment		100.0	20	PDB header: transferase Chain: F: PDB Molecule: farnesyl diphosphate synthase; PDBTitle: crystal structure of human fpps in complex with ibandronate
13	d2q80a1	Alignment		100.0	22	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Isoprenyl diphosphate synthases
14	c3oyrA	Alignment		100.0	45	PDB header: transferase Chain: A: PDB Molecule: trans-isoprenyl diphosphate synthase; PDBTitle: crystal structure of polyprenyl synthase from caulobacter crescentus2 cb15 complexed with calcium and isoprenyl diphosphate
15	c2ogdB	Alignment		100.0	17	PDB header: transferase Chain: B: PDB Molecule: farnesyl pyrophosphate synthase; PDBTitle: t. brucei farnesyl diphosphate synthase complexed with bisphosphonate2 bph-527
16	c3rmgB	Alignment		100.0	32	PDB header: transferase Chain: B: PDB Molecule: octaprenyl-diphosphate synthase; PDBTitle: crystal structure of geranylgeranyl pyrophosphate synthase from2 bacteroides thetaiotaomicron
17	c1yhlA	Alignment		100.0	18	PDB header: transferase Chain: A: PDB Molecule: farnesyl pyrophosphate synthase; PDBTitle: structure of the complex of trypanosoma cruzi farnesyl diphosphate2 synthase with risedronate, dmapp and mg+2
18	c3ez3A	Alignment		100.0	23	PDB header: lyase Chain: A: PDB Molecule: farnesyl pyrophosphate synthase, putative; PDBTitle: crystal structure of plasmodium vivax geranylgeranyl pyrophosphate2 synthase pvx_092040 with zoledronate and ipp bound
19	d1rqja	Alignment		100.0	31	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Isoprenyl diphosphate synthases
20	c2e8xB	Alignment		100.0	22	PDB header: transferase Chain: B: PDB Molecule: geranylgeranyl pyrophosphate synthetase; PDBTitle: s. cerevisiae geranylgeranyl pyrophosphate synthase in2 complex with magnesium and gpp
21	d1v4ea	Alignment	not modelled	100.0	27	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Isoprenyl diphosphate synthases
22	c3lk5A	Alignment	not modelled	100.0	26	PDB header: transferase Chain: A: PDB Molecule: geranylgeranyl pyrophosphate synthase; PDBTitle: crystal structure of putative geranylgeranyl pyrophosphate synthase2 from corynebacterium glutamicum PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative farnesyl pyrophosphate synthase; PDBTitle: cryptosporidium parvum putative polyprenyl pyrophosphate2 synthase (cgd4_2550) in complex with risedronate.
23	c2o1oB	Alignment	not modelled	100.0	20	PDB header: transferase Chain: D: PDB Molecule: farnesyl-diphosphate synthase; PDBTitle: crystal structure of geranylgeranyl pyrophosphate synthase2 from lactobacillus brevis atcc 367
24	c3m9uD	Alignment	not modelled	100.0	27	PDB header: transferase Chain: A: PDB Molecule: octaprenyl pyrophosphate synthase; PDBTitle: crystal structure of octaprenyl pyrophosphate synthase from2 helicobacter pylori
25	c3tc1A	Alignment	not modelled	100.0	28	PDB header: transferase Chain: B: PDB Molecule: geranyltranstransferase; PDBTitle: crystal structure of farnesyl diphosphate synthase (target efi-501951)2 from methylococcus capsulatus
26	c3ts7B	Alignment	not modelled	100.0	30	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Isoprenyl diphosphate synthases
27	d1rtra	Alignment	not modelled	100.0	31	PDB header: transferase Chain: A: PDB Molecule: geranyltranstransferase; PDBTitle: crystal structure of a geranyltranstransferase from the methanosaeca mazae
28	c3ipiA	Alignment	not modelled	100.0	30	PDB header: transferase Chain: B: PDB Molecule: geranyltranstransferase; PDBTitle: crystal structure of a geranyltranstransferase from the methanosaeca mazae

29	c2forB_	Alignment	not modelled	100.0	31	PDB header: transferase Chain: B: PDB Molecule: geranyltransterase; PDBTitle: crystal structure of the shigella flexneri farnesyl pyrophosphate synthase complex with an isopentenyl pyrophosphate
30	c2j1pB_	Alignment	not modelled	100.0	34	PDB header: transferase Chain: B: PDB Molecule: geranylgeranyl pyrophosphate synthetase; PDBTitle: geranylgeranyl diphosphate synthase from sinapis alba in2 complex with ggpp
31	c3lsmA_	Alignment	not modelled	100.0	33	PDB header: transferase Chain: A: PDB Molecule: geranyltransterase; PDBTitle: crystal structure of putative geranyltransterase from pseudomonas2 fluorescens pf-5 complexed with magnesium
32	c3ucaB_	Alignment	not modelled	100.0	30	PDB header: transferase Chain: B: PDB Molecule: geranyltransterase; PDBTitle: crystal structure of isoprenoid synthase (target efi-501974) from clostridium perfringens
33	c2h8oA_	Alignment	not modelled	100.0	30	PDB header: transferase Chain: A: PDB Molecule: geranyltransterase; PDBTitle: the 1.6a crystal structure of the geranyltransferase from2 agrobacterium tumefaciens
34	c2azjB_	Alignment	not modelled	100.0	23	PDB header: transferase Chain: B: PDB Molecule: geranylgeranyl pyrophosphate synthetase; PDBTitle: crystal structure for the mutant d81c of sulfolobus2 solfataricus hexaprenyl pyrophosphate synthase
35	c3lomA_	Alignment	not modelled	100.0	26	PDB header: transferase Chain: A: PDB Molecule: geranyltransterase; PDBTitle: crystal structure of geranyltransferase from legionella2 pneumophila
36	c3p8IB_	Alignment	not modelled	100.0	30	PDB header: transferase Chain: B: PDB Molecule: geranyltransterase; PDBTitle: crystal structure of polyprenyl synthase from enterococcus faecalis2 v583
37	c3llwA_	Alignment	not modelled	100.0	25	PDB header: transferase Chain: A: PDB Molecule: geranyltransterase (ispA); PDBTitle: crystal structure of geranyltransferase from helicobacter2 pylori 26695
38	c3m0gB_	Alignment	not modelled	100.0	31	PDB header: transferase Chain: B: PDB Molecule: farnesyl diphosphate synthase; PDBTitle: crystal structure of putative farnesyl diphosphate synthase from2 rhodobacter capsulatus
39	c2ftzA_	Alignment	not modelled	100.0	22	PDB header: transferase Chain: A: PDB Molecule: geranyltransterase; PDBTitle: crystal structure of geranyltransterase (ec 2.5.1.10) (tm01612) from thermotoga maritima at 1.90 a resolution
40	c2j1oA_	Alignment	not modelled	100.0	33	PDB header: transferase Chain: A: PDB Molecule: geranylgeranyl pyrophosphate synthetase; PDBTitle: geranylgeranyl diphosphate synthase from sinapis alba
41	c3qkcB_	Alignment	not modelled	100.0	16	PDB header: transferase Chain: B: PDB Molecule: geranyl diphosphate synthase small subunit; PDBTitle: crystal structure of geranyl diphosphate synthase small subunit from2 antirrhinum majus
42	c3npkB_	Alignment	not modelled	100.0	24	PDB header: transferase Chain: B: PDB Molecule: geranyltransterase; PDBTitle: the crystal structure of geranyltransterase from campylobacter2 jejuni
43	c3kraB_	Alignment	not modelled	100.0	20	PDB header: transferase Chain: B: PDB Molecule: geranyl diphosphate synthase small subunit; PDBTitle: mint heterotetrameric geranyl pyrophosphate synthase in2 complex with magnesium
44	c3p8rA_	Alignment	not modelled	100.0	28	PDB header: transferase Chain: A: PDB Molecule: geranyltransterase; PDBTitle: crystal structure of polyprenyl synthase from vibrio cholerae
45	d1ezfa_	Alignment	not modelled	98.0	13	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Squalene synthase
46	c2zcpA_	Alignment	not modelled	97.1	17	PDB header: transferase Chain: A: PDB Molecule: dehydrosqualene synthase; PDBTitle: crystal structure of the c(30) carotenoid dehydrosqualene2 synthase from staphylococcus aureus complexed with3 farnesyl thiopyrophosphate
47	c3lg5A_	Alignment	not modelled	91.8	8	PDB header: lyase Chain: A: PDB Molecule: epi-isozaeae synthase; PDBTitle: f198a epi-isozaeae synthase: complex with mg, inorganic2 pyrophosphate and benzyl triethyl ammonium cation
48	d1ps1a_	Alignment	not modelled	86.5	13	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Aristolochene/pentalenene synthase
49	d1d1a_	Alignment	not modelled	86.4	13	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Aristolochene/pentalenene synthase
50	d1n1ba2	Alignment	not modelled	74.3	15	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Terpenoid cyclase C-terminal domain
51	c2oa6B_	Alignment	not modelled	61.7	16	PDB header: lyase Chain: B: PDB Molecule: aristolochene synthase; PDBTitle: aristolochene synthase from aspergillus terreus complexed with2 pyrophosphate
52	c1hm4A_	Alignment	not modelled	55.3	11	PDB header: lyase Chain: A: PDB Molecule: pentalenene synthase; PDBTitle: n219l pentalenene synthase
53	d2o3la1	Alignment	not modelled	41.9	25	Fold: Left-handed superhelix Superfamily: BH3980-like

					Family: BH3980-like
54	d2hh6a1	Alignment	not modelled	34.7	29 Fold: Left-handed superhelix Superfamily: BH3980-like Family: BH3980-like
55	c1hx9A	Alignment	not modelled	34.4	17 PDB header: lyase Chain: A: PDB Molecule: 5-epi-aristolochene synthase; PDBTitle: crystal structure of teas w273s form 1
56	c3n0fA	Alignment	not modelled	26.5	15 PDB header: lyase Chain: A: PDB Molecule: isoprene synthase; PDBTitle: crystal structure of isoprene synthase from grey poplar leaves2 (<i>populus x canescens</i>)
57	c3g4dB	Alignment	not modelled	24.5	14 PDB header: lyase Chain: B: PDB Molecule: (+)-delta-cadinene synthase isozyme xc1; PDBTitle: crystal structure of (+)-delta-cadinene synthase from gossypium2 arboreum and evolutionary divergence of metal binding motifs for catalysis
58	d1s7za	Alignment	not modelled	20.1	21 Fold: Another 3-helical bundle Superfamily: B-form DNA mimic Ocr Family: B-form DNA mimic Ocr
59	c2ongA	Alignment	not modelled	18.1	17 PDB header: lyase Chain: A: PDB Molecule: 4s-limonene synthase; PDBTitle: crystal structure of limonene synthase with 2-2 fluorogeranyl diphosphate (fgpp).
60	d5easa2	Alignment	not modelled	17.0	16 Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Terpenoid cyclase C-terminal domain
61	c3byvA	Alignment	not modelled	15.9	19 PDB header: transferase Chain: A: PDB Molecule: rhoptry kinase; PDBTitle: crystal structure of toxoplasma gondii specific rhoptry2 antigen kinase domain
62	c3p5rB	Alignment	not modelled	15.4	15 PDB header: lyase Chain: B: PDB Molecule: taxadiene synthase; PDBTitle: crystal structure of taxadiene synthase from pacific yew (<i>taxus2 brevifolia</i>) in complex with mg ²⁺ and 2-fluorogeranylgeranyl3 diphosphate
63	c3q60A	Alignment	not modelled	13.7	14 PDB header: transferase Chain: A: PDB Molecule: rop5b; PDBTitle: crystal structure of virulent allele rop5b pseudokinase domain bound2 to atp
64	d2htja1	Alignment	not modelled	13.1	37 Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: FaaE-like
65	d1ej5a	Alignment	not modelled	11.5	15 Fold: Wiscott-Aldrich syndrome protein, WASP, C-terminal domain Superfamily: Wiscott-Aldrich syndrome protein, WASP, C-terminal domain Family: Wiscott-Aldrich syndrome protein, WASP, C-terminal domain
66	d1kiya	Alignment	not modelled	10.7	9 Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Trichodiene synthase
67	d2v4jc1	Alignment	not modelled	10.4	13 Fold: DsrC, the gamma subunit of dissimilatory sulfite reductase Superfamily: DsrC, the gamma subunit of dissimilatory sulfite reductase Family: DsrC, the gamma subunit of dissimilatory sulfite reductase
68	c1n20A	Alignment	not modelled	9.6	19 PDB header: isomerase Chain: A: PDB Molecule: (+)-bornyl diphosphate synthase; PDBTitle: (+)-bornyl diphosphate synthase: complex with mg and 3-aza-2 2,3-dihydrogeranyl diphosphate
69	c3e7eA	Alignment	not modelled	9.2	24 PDB header: transferase Chain: A: PDB Molecule: mitotic checkpoint serine/threonine-protein kinase bub1; PDBTitle: structure and substrate recruitment of the human spindle checkpoint2 kinase bub
70	c2jd3B	Alignment	not modelled	8.8	19 PDB header: dna binding protein Chain: B: PDB Molecule: stbb protein; PDBTitle: parr from plasmid pb171
71	c2v62A	Alignment	not modelled	7.8	24 PDB header: transferase Chain: A: PDB Molecule: serine/threonine-protein kinase vrk2; PDBTitle: structure of vaccinia-related kinase 2
72	c3s9vD	Alignment	not modelled	7.2	14 PDB header: lyase, isomerase Chain: D: PDB Molecule: abietadiene synthase, chloroplastic; PDBTitle: abietadiene synthase from abies grandis
73	c3dzoA	Alignment	not modelled	7.0	19 PDB header: transferase Chain: A: PDB Molecule: rhoptry kinase domain; PDBTitle: crystal structure of a rhoptry kinase from toxoplasma gondii
74	c3dfgA	Alignment	not modelled	6.6	15 PDB header: recombination Chain: A: PDB Molecule: regulatory protein recx; PDBTitle: crystal structure of recx: a potent inhibitor protein of reca from xanthomonas campestris
75	c2jiiA	Alignment	not modelled	6.3	24 PDB header: transferase Chain: A: PDB Molecule: serine/threonine-protein kinase vrk3 molecule: vaccinia PDBTitle: structure of vaccinia related kinase 3
76	c3pjAK	Alignment	not modelled	6.3	13 PDB header: hydrolase Chain: K: PDB Molecule: translin-associated protein x; PDBTitle: crystal structure of human c3po complex
77	d2fswa1	Alignment	not modelled	6.1	21 Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: HxIR-like
78	c2j5cB	Alignment	not modelled	5.4	17 PDB header: lyase Chain: B: PDB Molecule: 1,8-cineole synthase; PDBTitle: rational conversion of substrate and product specificity2 in a monoterpane synthase. structural insights into the3 molecular

					basis of rapid evolution.
79	d1s2xa_		not modelled	5.3	50 Fold: STAT-like Superfamily: Cag-Z Family: Cag-Z
80	c1s2xA_		not modelled	5.3	50 PDB header: unknown function Chain: A; PDB Molecule: cag-z; PDBTitle: crystal structure of cag-z from helicobacter pylori
81	c2pzIA_		not modelled	5.3	19 PDB header: transferase Chain: A; PDB Molecule: probable serine/threonine-protein kinase pkng; PDBTitle: crystal structure of protein kinase pkng from mycobacterium2 tuberculosis in complex with tetrahydrobenzothiophene ax20017