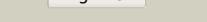


Phyre²

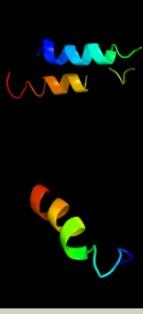
Email	i.a.kelley@imperial.ac.uk
Description	A0FGR9
Date	Thu Apr 26 09:38:06 BST 2012
Unique Job ID	4f054448a9455fdf

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2r83B_			100.0	38	PDB header: endocytosis, exocytosis Chain: B; PDB Molecule: synaptotagmin-1; PDBTitle: crystal structure analysis of human synaptotagmin 1 c2a-c2b
2	c1dqvA_			100.0	31	PDB header: endocytosis/exocytosis Chain: A; PDB Molecule: synaptotagmin iii; PDBTitle: crystal structure of synaptotagmin iii c2a/c2b
3	c2z0uB_			99.9	22	PDB header: lipid binding protein Chain: B; PDB Molecule: ww domain-containing protein 1; PDBTitle: crystal structure of c2 domain of kibra protein
4	c2dmgA_			99.9	47	PDB header: lipid binding protein Chain: A; PDB Molecule: kiaa1228 protein; PDBTitle: solution structure of the third c2 domain of kiaa1228 protein
5	c2d8ka_			99.9	38	PDB header: endocytosis/exocytosis Chain: A; PDB Molecule: synaptotagmin vii; PDBTitle: solution structure of the first c2 domain of synaptotagmin2 vii
6	d1wfma_			99.9	21	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
7	c2enpA_			99.9	35	PDB header: transport protein Chain: A; PDB Molecule: b/k protein; PDBTitle: solution structure of the first c2 domain from human b/k2 protein
8	c2q3xA_			99.9	31	PDB header: transport protein Chain: A; PDB Molecule: regulating synaptic membrane exocytosis protein 1; PDBTitle: the rim1alpha c2b domain
9	d1v27a_			99.9	26	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
10	d1rsya_			99.9	32	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
11	c2chdA_			99.9	26	PDB header: protein transport Chain: A; PDB Molecule: rabphilin-3a; PDBTitle: crystal structure of the c2a domain of rabphilin-3a

12	d2bwqa1			99.9	29	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
13	d1gmia_			99.9	20	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
14	d1dsya_			99.9	31	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
15	c3fbkB_			99.9	27	PDB header: signaling protein Chain: B: PDB Molecule: regulator of g-protein signaling 3; PDB Title: crystal structure of the c2 domain of the human regulator2 of g-protein signaling 3 isoform 6 (rgp3), northeast structural genomics consortium target hr5550a
16	d1lugka_			99.9	32	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
17	d2r83a1			99.9	33	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
18	c2fk9A_			99.9	24	PDB header: transferase Chain: A: PDB Molecule: protein kinase c, eta type; PDB Title: human protein kinase c, eta
19	c3nsjA_			99.9	24	PDB header: immune system Chain: A: PDB Molecule: perforin-1; PDB Title: the x-ray crystal structure of lymphocyte perforin
20	d1rh8a_			99.9	39	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
21	c2b3rA_		not modelled	99.9	29	PDB header: transferase Chain: A: PDB Molecule: phosphatidylinositol-4-phosphate 3-kinase c2 domain- PDB Title: crystal structure of the c2 domain of class ii phosphatidylinositide 3-kinase c2
22	c3m7fB_		not modelled	99.9	33	PDB header: signaling protein/ligase Chain: B: PDB Molecule: e3 ubiquitin-protein ligase nedd4; PDB Title: crystal structure of the nedd4 c2/grb10 sh2 complex
23	d1bdya_		not modelled	99.9	17	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
24	c3jzyA_		not modelled	99.9	32	PDB header: endocytosis Chain: A: PDB Molecule: intersectin 2; PDB Title: crystal structure of human intersectin 2 c2 domain
25	d1dqva1		not modelled	99.9	36	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
26	c3fdwA_		not modelled	99.9	29	PDB header: lipid binding protein Chain: A: PDB Molecule: synaptotagmin-like protein 4; PDB Title: crystal structure of a c2 domain from human synaptotagmin-2 like protein 4
27	d1rlwa_		not modelled	99.9	27	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
28	d1dqva2		not modelled	99.9	28	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)

29	d1uowa	Alignment	not modelled	99.9	34	Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
30	c2cm6A	Alignment	not modelled	99.9	30	PDB header: protein transport Chain: A: PDB Molecule: rabphilin-3a; PDBTitle: crystal structure of the c2b domain of rabphilin3a
31	c2dmhA	Alignment	not modelled	99.9	23	PDB header: lipid binding protein Chain: A: PDB Molecule: myoferlin; PDBTitle: solution structure of the first c2 domain of human myoferlin
32	d1byna	Alignment	not modelled	99.8	32	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
33	d1a25a	Alignment	not modelled	99.8	29	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
34	c3l9ba	Alignment	not modelled	99.8	23	PDB header: membrane protein Chain: A: PDB Molecule: otoferlin; PDBTitle: crystal structure of rat otoferlin c2a
35	c3n5aA	Alignment	not modelled	99.8	32	PDB header: protein transport Chain: A: PDB Molecule: synaptotagmin-7; PDBTitle: synaptotagmin-7, c2b-domain, calcium bound
36	d2cm5a1	Alignment	not modelled	99.8	31	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
37	c3kwta	Alignment	not modelled	99.8	35	PDB header: metal binding protein Chain: A: PDB Molecule: munc13-1; PDBTitle: munc13-1 c2b-domain, calcium-free
38	d1wfja	Alignment	not modelled	99.8	19	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
39	c2nq3A	Alignment	not modelled	99.8	22	PDB header: ligase Chain: A: PDB Molecule: itchy homolog e3 ubiquitin protein ligase; PDBTitle: crystal structure of the c2 domain of human itchy homolog e3 ubiquitin protein ligase
40	d2nq3a1	Alignment	not modelled	99.8	22	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
41	d2ep6a1	Alignment	not modelled	99.8	33	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
42	d2cjta1	Alignment	not modelled	99.8	20	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
43	c2enjA	Alignment	not modelled	99.8	14	PDB header: transferase Chain: A: PDB Molecule: protein kinase c theta type; PDBTitle: solution sturture of the c2 domain from human protein2 kinase c theta
44	d1w15a	Alignment	not modelled	99.8	31	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: Synaptotagmin-like (S variant)
45	c2nsqA	Alignment	not modelled	99.8	32	PDB header: ligase Chain: A: PDB Molecule: e3 ubiquitin-protein ligase nedd4-like protein; PDBTitle: crystal structure of the c2 domain of the human e3 ubiquitin-protein2 ligase nedd4-like protein
46	d1qasa2	Alignment	not modelled	99.7	20	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
47	d2cjsa1	Alignment	not modelled	99.7	19	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
48	c1cjyB	Alignment	not modelled	99.7	27	PDB header: hydrolase Chain: B: PDB Molecule: protein (cytosolic phospholipase a2); PDBTitle: human cytosolic phospholipase a2
49	c2jqzA	Alignment	not modelled	99.7	17	PDB header: ligase Chain: A: PDB Molecule: e3 ubiquitin-protein ligase smurf2; PDBTitle: solution structure of the c2 domain of human smurf2
50	d2zkmx2	Alignment	not modelled	99.6	28	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
51	c1djyB	Alignment	not modelled	99.5	19	PDB header: lipid degradation Chain: B: PDB Molecule: phosphoinositide-specific phospholipase c, PDBTitle: phosphoinositide-specific phospholipase c-delta1 from rat2 complexed with inositol-2,4,5-trisphosphate
52	c3ohmB	Alignment	not modelled	99.2	22	PDB header: signaling protein / hydrolase Chain: B: PDB Molecule: 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase PDBTitle: crystal structure of activated g alpha q bound to its effector2 phospholipase c beta 3
53	c3qr0A	Alignment	not modelled	99.2	21	PDB header: hydrolase Chain: A: PDB Molecule: phospholipase c-beta (plc-beta); PDBTitle: crystal structure of s. officinalis plc21
54	c2fjuB	Alignment	not modelled	99.0	32	PDB header: signaling protein,apoptosis/hydrolase Chain: B: PDB Molecule: 1-phosphatidylinositol-4,5-bisphosphate PDBTitle: activated rac1 bound to its effector phospholipase c beta 2
55	c3nfca	Alignment	not modelled	98.6	27	PDB header: transferase Chain: A: PDB Molecule: protein kinase c beta type;

55	c3p1yA	Alignment	not modelled	98.0	27	PDBTitle: crystal structure and allosteric activation of protein kinase c beta2 ii
56	d1e7ua2	Alignment	not modelled	97.7	22	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
57	c2enqA	Alignment	not modelled	97.5	12	PDB header: transferase Chain: A: PDB Molecule: phosphatidylinositol-4,5-bisphosphate 3-kinase PDBTitle: solution structure of the c2 domain from human pi3-kinase2 p110 subunit alpha
58	d1e8ya2	Alignment	not modelled	97.1	22	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
59	c2wxoA	Alignment	not modelled	96.7	16	PDB header: transferase Chain: A: PDB Molecule: phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic PDBTitle: the crystal structure of the murine class ia pi 3-kinase2 p110delta in complex with as5.
60	c1e8zA	Alignment	not modelled	96.4	22	PDB header: transferase Chain: A: PDB Molecule: phosphatidylinositol 3-kinase catalytic subunit; PDBTitle: structure determinants of phosphoinositide 3-kinase2 inhibition by wortmannin, ly294002, quercetin, myricetin3 and staurosporine
61	c2rd0A	Alignment	not modelled	95.8	13	PDB header: transferase/oncoprotein Chain: A: PDB Molecule: phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic PDBTitle: structure of a human p110alpha/p85alpha complex
62	c3l4cB	Alignment	not modelled	95.7	15	PDB header: cell adhesion, cell invasion, apoptosis Chain: B: PDB Molecule: dedicator of cytokinesis protein 1; PDBTitle: structural basis of membrane-targeting by dock180
63	c2y3aA	Alignment	not modelled	93.2	16	PDB header: transferase Chain: A: PDB Molecule: phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic PDBTitle: crystal structure of p110beta in complex with icsh2 of p85beta and2 the drug gdc-0941
64	d2yrba1	Alignment	not modelled	81.7	8	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
65	d2iuba2	Alignment		57.3	8	Fold: Transmembrane helix hairpin Superfamily: Magnesium transport protein CorA, transmembrane region Family: Magnesium transport protein CorA, transmembrane region
66	c2v6zM	Alignment		52.6	21	PDB header: transferase Chain: M: PDB Molecule: dna polymerase epsilon subunit 2; PDBTitle: solution structure of amino terminal domain of human dna2 polymerase epsilon subunit b
67	c2kluA	Alignment	not modelled	49.9	27	PDB header: immune system, membrane protein Chain: A: PDB Molecule: t-cell surface glycoprotein cd4; PDBTitle: nmr structure of the transmembrane and cytoplasmic domains2 of human cd4
68	d1ewfa1	Alignment	not modelled	48.8	8	Fold: Aha1/BPI domain-like Superfamily: Bactericidal permeability-increasing protein, BPI Family: Bactericidal permeability-increasing protein, BPI
69	d1d5ra1	Alignment	not modelled	41.9	12	Fold: C2 domain-like Superfamily: C2 domain (Calcium/lipid-binding domain, CaLB) Family: PLC-like (P variant)
70	c3c4mD	Alignment	not modelled	40.7	35	PDB header: membrane protein Chain: D: PDB Molecule: parathyroid hormone; PDBTitle: structure of human parathyroid hormone in complex with the2 extracellular domain of its g-protein-coupled receptor (pth1r)
71	c3c4mC	Alignment	not modelled	40.7	35	PDB header: membrane protein Chain: C: PDB Molecule: parathyroid hormone; PDBTitle: structure of human parathyroid hormone in complex with the2 extracellular domain of its g-protein-coupled receptor (pth1r)
72	c1bp1A	Alignment	not modelled	37.2	9	PDB header: bactericidal Chain: A: PDB Molecule: bactericidal/permeability-increasing protein; PDBTitle: crystal structure of bpi, the human bactericidal2 permeability-increasing protein
73	c2r2cA	Alignment	not modelled	34.3	29	PDB header: membrane protein Chain: A: PDB Molecule: 28 kda outer membrane protein omp28; PDBTitle: crystal structure of a domain of the outer membrane lipoprotein omp28 from porphyromonas gingivalis
74	c1zwgA	Alignment	not modelled	23.0	32	PDB header: hormone Chain: A: PDB Molecule: parathyroid hormone; PDBTitle: succinyl human parathyroid hormone 4-37, nmr, 10 structures
75	c3h8mB	Alignment	not modelled	20.8	37	PDB header: transferase Chain: B: PDB Molecule: ephrin type-a receptor 7; PDBTitle: sam domain of human ephrin type-a receptor 7 (epha7)
76	c3snhA	Alignment	not modelled	18.9	29	PDB header: endocytosis Chain: A: PDB Molecule: dynamin-1; PDBTitle: crystal structure of nucleotide-free human dynamin1
77	d1a8ra	Alignment	not modelled	16.3	19	Fold: T-fold Superfamily: Tetrahydrobiopterin biosynthesis enzymes-like Family: GTP cyclohydrolase I
78	c2bbjB	Alignment	not modelled	16.0	14	PDB header: metal transport/membrane protein Chain: B: PDB Molecule: divalent cation transport-related protein;

					PDBTitle: crystal structure of the cora mg2+ transporter
79	d1g0da2	Alignment	not modelled	15.3	14 Fold: Immunoglobulin-like beta-sandwich Superfamily: Transglutaminase, two C-terminal domains Family: Transglutaminase, two C-terminal domains
80	d1ciya3	Alignment	not modelled	15.2	13 Fold: Toxins' membrane translocation domains Superfamily: delta-Endotoxin (insecticide), N-terminal domain Family: delta-Endotoxin (insecticide), N-terminal domain
81	c1is7F_	Alignment	not modelled	12.2	27 PDB header: hydrolase/protein binding Chain: F: PDB Molecule: gtp cyclohydrolase i; PDBTitle: crystal structure of rat gtpchi/gfrp stimulatory complex
82	d1sdwa2	Alignment	not modelled	12.0	22 Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: PHM/PNGase F Family: Peptidylglycine alpha-hydroxylating monooxygenase, PHM
83	c1fvyaA_	Alignment	not modelled	11.8	44 PDB header: hormone/growth factor Chain: A: PDB Molecule: parathyroid hormone; PDBTitle: solution structure of the osteogenic 1-31 fragment of the human parathyroid hormone
84	d1gmea_	Alignment	not modelled	11.8	16 Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: HSP20
85	d1jhna4	Alignment	not modelled	11.7	15 Fold: Concanavalin A-like lectins/glucanases Superfamily: Concanavalin A-like lectins/glucanases Family: Calnexin/calreticulin
86	c3kskA_	Alignment	not modelled	11.5	13 PDB header: hydrolase Chain: A: PDB Molecule: type-2 restriction enzyme pvuII; PDBTitle: crystal structure of single chain pvuII
87	c3zvrA_	Alignment	not modelled	11.0	27 PDB header: hydrolase Chain: A: PDB Molecule: dynamin-1; PDBTitle: crystal structure of dynamin
88	c3lkxB_	Alignment	not modelled	10.7	30 PDB header: chaperone Chain: B: PDB Molecule: nascent polypeptide-associated complex subunit alpha; PDBTitle: human nac dimerization domain
89	d1wpla_	Alignment	not modelled	10.3	25 Fold: T-fold Superfamily: Tetrahydrobiopterin biosynthesis enzymes-like Family: GTP cyclohydrolase I
90	d1dlca3	Alignment	not modelled	10.2	25 Fold: Toxins' membrane translocation domains Superfamily: delta-Endotoxin (insecticide), N-terminal domain Family: delta-Endotoxin (insecticide), N-terminal domain
91	c1wm9D_	Alignment	not modelled	9.9	25 PDB header: hydrolase Chain: D: PDB Molecule: gtp cyclohydrolase i; PDBTitle: structure of gtp cyclohydrolase i from thermus thermophilus hb8
92	d1wura1	Alignment	not modelled	9.9	25 Fold: T-fold Superfamily: Tetrahydrobiopterin biosynthesis enzymes-like Family: GTP cyclohydrolase I
93	c4e71A_	Alignment	not modelled	9.5	22 PDB header: signaling protein Chain: A: PDB Molecule: plexin-b2; PDBTitle: crystal structure of the rho gtpase binding domain of plexin b2
94	d2o8ra4	Alignment	not modelled	9.4	17 Fold: Phospholipase D/nuclease Superfamily: Phospholipase D/nuclease Family: Polyphosphate kinase C-terminal domain
95	c2op8A_	Alignment	not modelled	9.2	33 PDB header: isomerase Chain: A: PDB Molecule: probable tautomerase ywhb; PDBTitle: crystal structure of ywhb- homologue of 4-oxalocrotonate tautomerase
96	d1gmeb_	Alignment	not modelled	9.2	16 Fold: HSP20-like chaperones Superfamily: HSP20-like chaperones Family: HSP20
97	d1otfa_	Alignment	not modelled	9.1	17 Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
98	d1xdpa4	Alignment	not modelled	8.9	11 Fold: Phospholipase D/nuclease Superfamily: Phospholipase D/nuclease Family: Polyphosphate kinase C-terminal domain
99	c3pjvD_	Alignment	not modelled	8.2	5 PDB header: lyase Chain: D: PDB Molecule: cyclic dimeric gmp binding protein; PDBTitle: structure of pseudomonas fluorescence lpd periplasmic domain