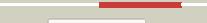


Phyre²

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Description	P77302
Date	Thu Jan 5 12:27:30 GMT 2012
Unique Job ID	b84fb4aa8b42bbf6

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1w25B_			100.0	38	PDB header: signaling protein Chain: B; PDB Molecule: stalked-cell differentiation controlling protein; PDBTitle: response regulator pled in complex with c-digmp
2	c3ezuA_			100.0	27	PDB header: signaling protein Chain: A; PDB Molecule: ggdef domain protein; PDBTitle: crystal structure of multidomain protein of unknown function with2 ggdef-domain (np_951600.1) from geobacter sulfurreducens at 1.95 a3 resolution
3	c3i5aA_			100.0	41	PDB header: signaling protein Chain: A; PDB Molecule: response regulator/ggdef domain protein; PDBTitle: crystal structure of full-length wpsr from pseudomonas syringae
4	c3breA_			100.0	40	PDB header: signaling protein Chain: A; PDB Molecule: probable two-component response regulator; PDBTitle: crystal structure of p.aeruginosa pa3702
5	c3qyyB_			100.0	31	PDB header: signaling protein/inhibitor Chain: B; PDB Molecule: response regulator; PDBTitle: a novel interaction mode between a microbial ggdef domain and the bis-2 (3, 5)-cyclic di-gmp
6	c3ignA_			100.0	36	PDB header: transferase Chain: A; PDB Molecule: diguanylate cyclase; PDBTitle: crystal structure of the ggdef domain from marinobacter2 aquaeolei diguanylate cyclase complexed with c-di-gmp -3 northeast structural genomics consortium target mqr89a
7	c3i5cA_			100.0	39	PDB header: signaling protein Chain: A; PDB Molecule: fusion of general control protein gcn4 and wspr response PDBTitle: crystal structure of a fusion protein containing the leucine zipper of2 gcn4 and the ggdef domain of wspr from pseudomonas aeruginosa
8	c3i5bA_			100.0	37	PDB header: signaling protein Chain: A; PDB Molecule: wspr response regulator; PDBTitle: crystal structure of the isolated ggdef domain of wpsr from2 pseudomonas aeruginosa
9	c3hvaA_			100.0	21	PDB header: transferase Chain: A; PDB Molecule: protein fimx; PDBTitle: crystal structure of fimx ggdef domain from pseudomonas2 aeruginosa
10	d1w25a3			100.0	41	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: GGDEF domain
11	c3icla_			100.0	33	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: eal/ggdef domain protein; PDBTitle: x-ray structure of protein (eal/ggdef domain protein) from2 m.capsulatus, northeast structural genomics consortium3 target mcr174c

12	c3mtkA			100.0	25	PDB header: transferase Chain: A: PDB Molecule: diguanylate cyclase/phosphodiesterase; PDBTitle: x-ray structure of diguanylate cyclase/phosphodiesterase from2 caldicellulosiruptor saccharolyticus, northeast structural genomics3 consortium target clr27c
13	c3pjwA			99.9	27	PDB header: lyase Chain: A: PDB Molecule: cyclic dimeric gmp binding protein; PDBTitle: structure of pseudomonas fluorescence lapd ggdef-eal dual domain, i23
14	c3hvwA			99.9	15	PDB header: lyase Chain: A: PDB Molecule: diguanylate-cyclase (dgc); PDBTitle: crystal structure of the ggdef domain of the pa2567 protein2 from pseudomonas aeruginosa, northeast structural genomics3 consortium target par365c
15	c3p7nB			99.7	14	PDB header: dna binding protein Chain: B: PDB Molecule: sensor histidine kinase; PDBTitle: crystal structure of light activated transcription factor el222 from2 erythrobacter litoralis
16	c3gecA			99.6	10	PDB header: circadian clock protein Chain: A: PDB Molecule: period circadian protein; PDBTitle: crystal structure of a tandem pas domain fragment of2 drosophila period
17	c3gfbB			99.5	13	PDB header: hydrolase, signalling protein Chain: B: PDB Molecule: klebsiella pneumoniae blrp1; PDBTitle: klebsiella pneumoniae blrp1 ph 6 manganese/cy-digmp complex
18	c3rtyA			99.5	10	PDB header: circadian clock protein Chain: A: PDB Molecule: period circadian protein; PDBTitle: structure of an enclosed dimer formed by the drosophila period protein
19	c3gdiB			99.5	10	PDB header: transcription Chain: B: PDB Molecule: period circadian protein homolog 2; PDBTitle: mammalian clock protein mper2 - crystal struture of a pas2 domain fragment
20	c3bwIA			99.5	16	PDB header: transferase Chain: A: PDB Molecule: sensor protein; PDBTitle: crystal structure of pas domain of htr-like protein from haloarcula2 marismortui
21	d1ew0a		not modelled	99.4	19	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: Heme-binding PAS domain
22	c1wa9A		not modelled	99.4	10	PDB header: circadian rhythm Chain: A: PDB Molecule: period circadian protein; PDBTitle: crystal structure of the pas repeat region of the2 drosophila clock protein period
23	c2r78D		not modelled	99.3	15	PDB header: transferase Chain: D: PDB Molecule: sensor protein; PDBTitle: crystal structure of a domain of the sensory box sensor2 histidine kinase/response regulator from geobacter3 sulfurreducens
24	c3mfxA		not modelled	99.3	13	PDB header: transcription Chain: A: PDB Molecule: sensory box/ggdef family protein; PDBTitle: crystal structure of the sensory box domain of the sensory-2 box/ggdef protein so_1695 from shewanella oneidensis,3 northeast structural genomics consortium target sor288b
25	c3mjqB		not modelled	99.2	20	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of the pas domain of q24qt8_deshy protein from2 desulfitobacterium haafiense. northeast structural genomics3 consortium target dhr85c.
26	c2pr6A		not modelled	99.2	21	PDB header: flavoprotein, signalling protein Chain: A: PDB Molecule: blue-light photoreceptor; PDBTitle: structural basis for light-dependent signaling in the dimeric lov2 photosensor ytva (light structure)
27	c3mqoB		not modelled	99.2	12	PDB header: transcription regulator Chain: B: PDB Molecule: transcriptional regulator, luxR family; PDBTitle: the crystal structure of the pas domain in complex with isopropanol of2 a transcriptional regulator in the luxR family from burkholderia3 thailandensis to 1.7a

28	c3caxA		Alignment	not modelled	99.2	8	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein pf0695; PDBTitle: crystal structure of uncharacterized protein pf0695
29	c2v1bA		Alignment	not modelled	99.2	12	PDB header: transferase Chain: A: PDB Molecule: nph1-1; PDBTitle: n- and c-terminal helices of oat lov2 (404-546) are2 involved in light-induced signal transduction (room3 temperature (293k) light structure of lov2 (404-546))
30	c3ewkA		Alignment	not modelled	99.2	13	PDB header: flavoprotein Chain: A: PDB Molecule: sensor protein; PDBTitle: structure of the redox sensor domain of methylococcus capsulatus2 (bath) mmos
31	c3oloB		Alignment	not modelled	99.2	12	PDB header: transferase Chain: B: PDB Molecule: two-component sensor histidine kinase; PDBTitle: crystal structure of a pas domain from two-component sensor histidine2 kinase
32	d1y28a		Alignment	not modelled	99.2	18	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: Heme-binding PAS domain
33	d1p97a		Alignment	not modelled	99.1	12	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: Hypoxia-inducible factor Hif2a, C-terminal domain
34	c3b33A		Alignment	not modelled	99.1	16	PDB header: transferase Chain: A: PDB Molecule: sensor protein; PDBTitle: crystal structure of the pas domain of nitrogen regulation protein2 nr(i) from vibrio parahaemolyticus
35	c2l4rA		Alignment	not modelled	99.1	14	PDB header: transport protein Chain: A: PDB Molecule: potassium voltage-gated channel subfamily h member 2; PDBTitle: nmr solution structure of the n-terminal pas domain of herg
36	d1bywa		Alignment	not modelled	99.1	12	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: Flavin-binding PAS domain
37	c3luqC		Alignment	not modelled	99.1	14	PDB header: transferase Chain: C: PDB Molecule: sensor protein; PDBTitle: the crystal structure of a pas domain from a sensory box2 histidine kinase regulator from geobacter sulfurreducens to3 2.5a
38	c1v9yA		Alignment	not modelled	99.0	15	PDB header: signaling protein Chain: A: PDB Molecule: heme pas sensor protein; PDBTitle: crystal structure of the heme pas sensor domain of ec dos (ferric2 form)
39	d1v9ya		Alignment	not modelled	99.0	15	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: Heme-binding PAS domain
40	c3lyxA		Alignment	not modelled	99.0	17	PDB header: transcription Chain: A: PDB Molecule: sensory box/ggdef domain protein; PDBTitle: crystal structure of the pas domain of the protein cps_12912 from colwellia psychrerythraea. northeast structural3 genomics consortium target id csr222b
41	d1xj3a1		Alignment	not modelled	99.0	17	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: Heme-binding PAS domain
42	d1ll8a		Alignment	not modelled	99.0	9	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: N-terminal PAS domain of Pas kinase
43	c2gj3A		Alignment	not modelled	99.0	15	PDB header: transferase Chain: A: PDB Molecule: nitrogen fixation regulatory protein; PDBTitle: crystal structure of the fad-containing pas domain of the2 protein nifl from azotobacter vinelandii.
44	c2wkqA		Alignment	not modelled	99.0	14	PDB header: transferase, cell adhesion Chain: A: PDB Molecule: nph1-1, ras-related c3 botulinum toxin substrate PDBTitle: structure of a photoactivatable rac1 containing the lov22 c450a mutant
45	c2z6dB		Alignment	not modelled	99.0	10	PDB header: transferase Chain: B: PDB Molecule: phototropin-2; PDBTitle: crystal structure of lov1 domain of phototropin2 from arabidopsis thaliana
46	c3mxqC		Alignment	not modelled	99.0	16	PDB header: transferase Chain: C: PDB Molecule: sensor protein; PDBTitle: crystal structure of sensory box sensor histidine kinase from vibrio2 cholerae
47	c3mr0B		Alignment	not modelled	99.0	13	PDB header: transcription regulator Chain: B: PDB Molecule: sensory box histidine kinase/response regulator; PDBTitle: crystal structure of sensory box histidine kinase/response regulator2 from burkholderia thailandensis e264
48	c3f1oB		Alignment	not modelled	99.0	10	PDB header: transcription Chain: B: PDB Molecule: aryl hydrocarbon receptor nuclear translocator; PDBTitle: crystal structure of the high affinity heterodimer of hif22 alpha and arnt c-terminal pas domains, with an internally-3 bound artificial ligand
49	c2vlgD		Alignment	not modelled	99.0	11	PDB header: transferase Chain: D: PDB Molecule: sporulation kinase a; PDBTitle: kina pas-a domain, homodimer
50	d1n9la		Alignment	not modelled	99.0	14	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: Flavin-binding PAS domain
51	c3kx0X		Alignment	not modelled	98.9	12	PDB header: signaling protein Chain: X: PDB Molecule: uncharacterized protein rv1364c/mt1410; PDBTitle: crystal structure of the pas domain of rv1364c
52	c3k3dA		Alignment	not modelled	98.9	14	PDB header: signaling protein Chain: A: PDB Molecule: protein rv1364c/mt1410;

52	c0rum	Alignment	not modelled	98.9	14	PDBTitle: the n-terminal pas domain crystal structure of rv1364c from2 mycobacterium tuberculosis at 2.3 angstrom PDB header: structural genomics, unknown function Chain: A: PDB Molecule: diguanylate cyclase with pas/pac sensor; PDBTitle: crystal structure of the n-terminal domain of diguanylate cyclase with2 pas/pac sensor (maqu_2914) from marinobacter aquaeolei, northeast3 structural genomics consortium target mqr66c
53	c3h9wA	Alignment	not modelled	98.9	6	PDB header: transferase Chain: A: PDB Molecule: putative light and redox sensing histidine kinase; PDBTitle: the crystal structure of the domain of the putative light and redox2 sensing histidine kinase from haloarcula marismortui
54	c3eehA	Alignment	not modelled	98.9	14	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: Flavin-binding PAS domain
55	d1jnua	Alignment	not modelled	98.9	11	PDB header: transcription regulator Chain: A: PDB Molecule: aryl hydrocarbon receptor nuclear translocator-like protein PDBTitle: structure of human circadian clock protein bmal2 c-terminal pas domain
56	c2kdkA	Alignment	not modelled	98.8	10	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein rha05790; PDBTitle: crystal structure of pas domain of rha05790
57	c3fg8B	Alignment	not modelled	98.8	11	PDB header: circadian clock protein Chain: D: PDB Molecule: vivid pas protein vvd; PDBTitle: 2.3 angstrom structure of phosphodiesterase treated vivid
58	c2pdtD	Alignment	not modelled	98.7	12	PDB header: transcription Chain: B: PDB Molecule: transcription regulator tyrr; PDBTitle: n-terminal domain of tyrr transcription factor (residues 1 -2 190)
59	c2jheB	Alignment	not modelled	98.6	9	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: PYP-like
60	d1otda	Alignment	not modelled	98.5	13	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: PYP-like
61	d1oj5a	Alignment	not modelled	98.4	11	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: PAS domain of steroid receptor coactivator 1A, NCo-A1
62	c2qkpD	Alignment	not modelled	98.4	10	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of c-terminal domain of smu_1151c from streptococcus2 mutants
63	d1nwza	Alignment	not modelled	98.4	10	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: PYP-like
64	c3fc7B	Alignment	not modelled	98.4	14	PDB header: transferase Chain: B: PDB Molecule: htr-like protein; PDBTitle: the crystal structure of a domain of htr-like protein from haloarcula2 marismortui atcc 43049
65	d1xfna1	Alignment	not modelled	98.4	11	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: PYP-like
66	c3icyB	Alignment	not modelled	98.4	11	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: sensor protein; PDBTitle: the crystal structure of sensory box histidine2 kinase/response regulator domain from chlorobiium tepidum3 tls
67	c2o9bA	Alignment	not modelled	98.3	8	PDB header: transferase Chain: A: PDB Molecule: bacteriophytochrome; PDBTitle: crystal structure of bacteriophytochrome chromophore binding domain
68	d1mzua	Alignment	not modelled	98.3	8	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: PYP-like
69	c3njaC	Alignment	not modelled	98.2	12	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: probable ggdef family protein; PDBTitle: the crystal structure of the pas domain of a ggdef family protein from2 chromobacterium violaceum atcc 12472.
70	c2w0nA	Alignment	not modelled	98.2	13	PDB header: transferase Chain: A: PDB Molecule: sensor protein dcus; PDBTitle: plasticity of pas domain and potential role for signal2 transduction in the histidine-kinase dcus
71	c3a0rA	Alignment	not modelled	98.2	12	PDB header: transferase Chain: A: PDB Molecule: sensor protein; PDBTitle: crystal structure of histidine kinase thka (tm1359) in complex with2 response regulator protein tra (tm1360)
72	c3cloC	Alignment	not modelled	98.1	8	PDB header: transcription regulator Chain: C: PDB Molecule: transcriptional regulator; PDBTitle: crystal structure of putative transcriptional regulator containing a2 lux dna binding domain (np_811094.1) from bacteroides3 thetaiotaomicron vpi-5482 at 2.04 a resolution
73	c2oolA	Alignment	not modelled	98.1	7	PDB header: signaling protein Chain: A: PDB Molecule: sensor protein; PDBTitle: crystal structure of the chromophore-binding domain of an unusual2 bacteriophytochrome rpbphp3 from r. palustris
74	c3a0vA	Alignment	not modelled	98.0	13	PDB header: transferase Chain: A: PDB Molecule: sensor protein; PDBTitle: pas domain of histidine kinase thka (tm1359) (semet2 f486mf489m)
75	c2veaA	Alignment	not modelled	97.7	7	PDB header: transferase Chain: A: PDB Molecule: phytochrome-like protein cph1; PDBTitle: the complete sensory module of the cyanobacterial2 phytochrome cph1 in the pr-state.
76	c2qv6D	Alignment	not modelled	97.2	17	PDB header: hydrolase Chain: D: PDB Molecule: gtp cyclohydrolase iii; PDBTitle: gtp cyclohydrolase iii from m. jannaschii (mj0145)2 complexed with gtp and metal ions
77	d1azsa	Alignment	not modelled	95.0	13	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase

						Family: Adenylyl and guanylyl cyclase catalytic domain
78	c1cjkA	Alignment	not modelled	94.9	13	PDB header: lyase/lyase/signaling protein Chain: A: PDB Molecule: adenylate cyclase, type v; PDBTitle: complex of gs-alpha with the catalytic domains of mammalian adenylyl cyclase: complex with adenosine 5'-(alpha thio)-triphosphate (rp), 3 mg, and mn
79	c1y10C	Alignment	not modelled	91.6	14	PDB header: lyase Chain: C: PDB Molecule: hypothetical protein rv1264/ml1302; PDBTitle: mycobacterial adenylyl cyclase rv1264, holoenzyme, inhibited state
80	c3c2wB	Alignment	not modelled	90.5	13	PDB header: signaling protein Chain: B: PDB Molecule: bacteriophytocrome; PDBTitle: crystal structure of the photosensory core domain of p.2 aeruginosa bacteriophytocrome pabphp in the pfr state
81	c1yk9A	Alignment	not modelled	89.7	12	PDB header: lyase Chain: A: PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of a mutant form of the mycobacterial2 adenylyl cyclase rv1625c
82	c3uvjC	Alignment	not modelled	89.2	13	PDB header: lyase Chain: C: PDB Molecule: guanylate cyclase soluble subunit alpha-3; PDBTitle: crystal structure of the catalytic domain of the heterodimeric human2 soluble guanylate cyclase 1.
83	c2w01C	Alignment	not modelled	85.2	15	PDB header: lyase Chain: C: PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of the guanylyl cyclase cya2
84	c3mr7B	Alignment	not modelled	84.5	9	PDB header: hydrolase Chain: B: PDB Molecule: adenylate/guanylate cyclase/hydrolase, alpha/beta fold PDBTitle: crystal structure of adenylate/guanylate cyclase/hydrolase from2 silicibacter pomeroyi
85	c1wc6B	Alignment	not modelled	83.7	15	PDB header: lyase Chain: B: PDB Molecule: adenylate cyclase; PDBTitle: soluble adenylyl cyclase cyac from s. platensis in complex2 with rp-atp alphas in presence of bicarbonate
86	d1wcla	Alignment	not modelled	79.1	15	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
87	d2o9ca2	Alignment	not modelled	75.0	10	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: BphP N-terminal domain-like
88	c1ybuA	Alignment	not modelled	68.8	16	PDB header: hydrolase Chain: A: PDB Molecule: lipj; PDBTitle: mycobacterium tuberculosis adenylyl cyclase rv1900c chd, in complex2 with a substrate analog.
89	c3et6A	Alignment	not modelled	67.9	13	PDB header: lyase Chain: A: PDB Molecule: soluble guanylyl cyclase beta; PDBTitle: the crystal structure of the catalytic domain of a eukaryotic2 guanylyl cyclase
90	d1fx4a	Alignment	not modelled	66.2	15	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
91	d1fx2a	Alignment	not modelled	57.5	12	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
92	c3gqcB	Alignment	not modelled	43.8	22	PDB header: transferase/dna Chain: B: PDB Molecule: dna repair protein rev1; PDBTitle: structure of human rev1-dna-dntp ternary complex
93	c3pxpA	Alignment	not modelled	39.5	11	PDB header: transcription regulator Chain: A: PDB Molecule: helix-turn-helix domain protein; PDBTitle: crystal structure of a pas and dna binding domain containing protein2 (caur_2278) from chloroflexus aurantiacus j-10-fl at 2.30 a3 resolution
94	d2veaa3	Alignment	not modelled	37.1	12	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: BphP N-terminal domain-like
95	d1azsb	Alignment	not modelled	35.9	11	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
96	c3ongB	Alignment	not modelled	33.3	11	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: regulator of polyketide synthase expression; PDBTitle: crystal structure of regulator of polyketide synthase expression2 bad_0249 from bifidobacterium adolescentis
97	c2wz1B	Alignment	not modelled	32.9	8	PDB header: lyase Chain: B: PDB Molecule: guanylyl cyclase soluble subunit beta-1; PDBTitle: structure of the catalytic domain of human soluble2 guanylyl cyclase 1 beta 3.
98	c2aq4A	Alignment	not modelled	29.1	26	PDB header: transferase Chain: A: PDB Molecule: dna repair protein rev1; PDBTitle: ternary complex of the catalytic core of rev1 with dna and dctp.
99	d3c2wa3	Alignment	not modelled	23.7	13	Fold: Profilin-like Superfamily: PYP-like sensor domain (PAS domain) Family: BphP N-terminal domain-like