
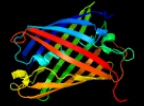
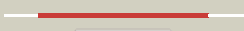


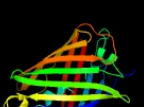



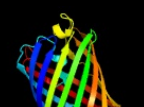

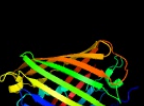

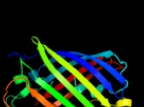










Phyre2

Email	lherould.t@gmail.com
Description	Undefined
Date	Tue Oct 3 16:16:01 BST 2017
Unique Job ID	77875f97c8c9be27

Detailed template
information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1moua_	 Alignment		100.0	95	Fold: GFP-like Superfamily: GFP-like Family: Fluorescent proteins
2	d1ggxa_	 Alignment		100.0	67	Fold: GFP-like Superfamily: GFP-like Family: Fluorescent proteins
3	c3nezB_	 Alignment		100.0	61	PDB header: fluorescent protein Chain: B: PDB Molecule: mrojoa; PDBTitle: mrojoa
4	c3nezA_	 Alignment		100.0	61	PDB header: fluorescent protein Chain: A: PDB Molecule: mrojoa; PDBTitle: mrojoa
5	c2otbB_	 Alignment		100.0	55	PDB header: fluorescent protein Chain: B: PDB Molecule: gfp-like fluorescent chromoprotein cfp484; PDBTitle: crystal structure of a monomeric cyan fluorescent protein in the2 fluorescent state
6	c2ddcA_	 Alignment		100.0	55	PDB header: luminescent protein Chain: A: PDB Molecule: photoconvertible fluorescent protein; PDBTitle: unique behavior of a histidine responsible for an engineered green-to-2 red photoconversion process
7	c2z6zA_	 Alignment		100.0	57	PDB header: fluorescent protein Chain: A: PDB Molecule: fluorescent protein dronpa; PDBTitle: crystal structure of a photoswitchable gfp-like protein2 dronpa in the bright-state
8	d1xqma_	 Alignment		100.0	48	Fold: GFP-like Superfamily: GFP-like Family: Fluorescent proteins
9	c2ib5H_	 Alignment		100.0	50	PDB header: luminescent protein Chain: H: PDB Molecule: chromo protein; PDBTitle: structural characterization of a blue chromoprotein and its yellow2 mutant from the sea anemone cnidopus japonicus
10	c2c9IG_	 Alignment		100.0	49	PDB header: luminescent protein Chain: G: PDB Molecule: green fluorescent protein asfp499; PDBTitle: structure of the fluorescent protein asfp499 from anemonia2 sulcata
11	d1uisa_	 Alignment		100.0	50	Fold: GFP-like Superfamily: GFP-like Family: Fluorescent proteins

12	c4ohsB_	Alignment		100.0	50	PDB header: fluorescent protein Chain: B: PDB Molecule: far-red fluorescent protein aq143; PDBTitle: the structure of a far-red fluorescent protein, aq143
13	c3cglE_	Alignment		100.0	60	PDB header: fluorescent protein Chain: E: PDB Molecule: gfp-like fluorescent chromoprotein dsfp483; PDBTitle: crystal structure and raman studies of dsfp483, a cyan fluorescent2 protein from discosoma striata
14	c2c9jG_	Alignment		100.0	39	PDB header: luminescent protein Chain: G: PDB Molecule: green fluorescent protein fp512; PDBTitle: structure of the fluorescent protein cmfp512 at 1.35a from2 cerianthus membranaceus
15	c2zo6A_	Alignment		100.0	48	PDB header: luminescent protein Chain: A: PDB Molecule: cyan-emitting gfp-like protein, kusabira-cyan (kcy); PDBTitle: crystal structure of kusabira-cyan (kcy), a cyan-emitting gfp-like2 protein
16	c2zo7A_	Alignment		100.0	49	PDB header: luminescent protein Chain: A: PDB Molecule: cyan/green-emitting gfp-like protein, kusabira-cyan mutant PDBTitle: crystal structure of a kusabira-cyan mutant (kcy-r1), a cyan/green-2 emitting gfp-like protein
17	c2zmwC_	Alignment		100.0	53	PDB header: luminescent protein Chain: C: PDB Molecule: fluorescent protein; PDBTitle: crystal structure of monomeric kusabira-orange (mko), orange-emitting2 gfp-like protein, at ph 6.0
18	c1yzwB_	Alignment		100.0	50	PDB header: luminescent protein Chain: B: PDB Molecule: gfp-like non-fluorescent chromoprotein; PDBTitle: the 2.1a crystal structure of the far-red fluorescent2 protein hcrcd: inherent conformational flexibility of the3 chromophore
19	c2a48A_	Alignment		100.0	48	PDB header: luminescent protein Chain: A: PDB Molecule: gfp-like fluorescent chromoprotein amfp486; PDBTitle: crystal structure of amfp486 e150q
20	d2rh7a1	Alignment		100.0	42	Fold: GFP-like Superfamily: GFP-like Family: Fluorescent proteins
21	c3gb3B_	Alignment	not modelled	100.0	25	PDB header: fluorescent protein Chain: B: PDB Molecule: killerred; PDBTitle: x-ray structure of genetically encoded photosensitizer2 killerred in native form
22	c2icrD_	Alignment	not modelled	100.0	44	PDB header: fluorescent protein Chain: D: PDB Molecule: red fluorescent protein zoanrfp; PDBTitle: red fluorescent protein zrfp574 from zoanthus sp.
23	c4jeoB_	Alignment	not modelled	100.0	29	PDB header: fluorescent protein Chain: B: PDB Molecule: red fluorescent protein blfp-r5; PDBTitle: crystal structure of red fluorescent protein lanrfpdam exposed to2 prolonged x-ray irradiation
24	c5ltrA_	Alignment	not modelled	100.0	27	PDB header: fluorescent protein Chain: A: PDB Molecule: mneongreen; PDBTitle: structure of the yellow-green fluorescent protein mneongreen from2 branchiostoma lanceolatum at the near physiological ph 8.0
25	d1h6ra_	Alignment	not modelled	100.0	25	Fold: GFP-like Superfamily: GFP-like Family: Fluorescent proteins
26	c2g3oB_	Alignment	not modelled	100.0	27	PDB header: luminescent protein Chain: B: PDB Molecule: green fluorescent protein 2; PDBTitle: the 2.1a crystal structure of copgfp
27	c2dd9C_	Alignment	not modelled	100.0	26	PDB header: luminescent protein Chain: C: PDB Molecule: green fluorescent protein; PDBTitle: a mutant of gfp-like protein from chiridius poppei
28	d1kp5a_	Alignment	not modelled	100.0	25	Fold: GFP-like Superfamily: GFP-like Family: Fluorescent proteins
						PDB header: fluorescent protein

29	c4dkmH_	Alignment	not modelled	100.0	26	Chain: H: PDB Molecule: amphioxus green fluorescent protein, gfpc1a; PDBTitle: crystal structure of amphioxus gfpc1a
30	c4he4A_	Alignment	not modelled	100.0	24	PDB header: fluorescent protein Chain: A: PDB Molecule: yellow fluorescent protein; PDBTitle: crystal structure of the yellow fluorescent protein phiyfp (phialidium2 sp.)
31	d1oxda_	Alignment	not modelled	100.0	24	Fold: GFP-like Superfamily: GFP-like Family: Fluorescent proteins
32	d1mywa_	Alignment	not modelled	100.0	25	Fold: GFP-like Superfamily: GFP-like Family: Fluorescent proteins
33	c4dknB_	Alignment	not modelled	100.0	26	PDB header: fluorescent protein Chain: B: PDB Molecule: amphioxus green fluorescent protein, gfpa1; PDBTitle: crystal structure of amphioxus green fluorescent protein, gfpa1
34	c2hpwA_	Alignment	not modelled	100.0	24	PDB header: luminescent protein Chain: A: PDB Molecule: green fluorescent protein; PDBTitle: green fluorescent protein from clytia gregaria
35	c3ai4A_	Alignment	not modelled	100.0	24	PDB header: fluorescent protein, replication Chain: A: PDB Molecule: yeast enhanced green fluorescent protein,dna polymerase PDBTitle: crystal structure of yeast enhanced green fluorescent protein - mouse2 polymerase iota ubiquitin binding motif fusion protein
36	c4xbiA_	Alignment	not modelled	100.0	26	PDB header: chaperone Chain: A: PDB Molecule: clpb protein, putative,green fluorescent protein; PDBTitle: structure of a malarial protein involved in proteostasis
37	c3vhtB_	Alignment	not modelled	100.0	25	PDB header: fluorescent protein/protein binding Chain: B: PDB Molecule: green fluorescent protein,atpase wrnip1; PDBTitle: crystal structure of gfp-wrnip1 ubz domain fusion protein in complex2 with ubiquitin
38	c4ndkA_	Alignment	not modelled	100.0	24	PDB header: fluorescent protein, de novo protein Chain: A: PDB Molecule: e23p-yfp, chimeric construct,gfp-like fluorescent PDBTitle: crystal structure of a computational designed engrailed homeodomain2 variant fused with yfp
39	c5j3nA_	Alignment	not modelled	100.0	25	PDB header: hydrolase Chain: A: PDB Molecule: green fluorescent protein,hsdr; PDBTitle: c-terminal domain of ecor124i hsdr subunit fused with the ph-sensitive2 gfp variant ratiometric phluorin
40	c3rwaE_	Alignment	not modelled	100.0	55	PDB header: fluorescent protein Chain: E: PDB Molecule: fluorescent protein fp480; PDBTitle: crystal structure of circular-permuted mkate
41	c4p7hB_	Alignment	not modelled	100.0	26	PDB header: motor/fluorescent protein Chain: B: PDB Molecule: myosin-7,green fluorescent protein; PDBTitle: structure of human beta-cardiac myosin motor domain::gfp chimera
42	c4jrbA_	Alignment	not modelled	100.0	24	PDB header: lipid binding protein Chain: A: PDB Molecule: green fluorescent protein; PDBTitle: structure of cockroach allergen bla g 1 tandem repeat as a egfp fusion
43	c2jadA_	Alignment	not modelled	100.0	25	PDB header: electron transport Chain: A: PDB Molecule: yellow fluorescent protein glutaredoxin fusion protein; PDBTitle: yellow fluorescent protein - glutaredoxin fusion protein
44	c4pfeB_	Alignment	not modelled	100.0	25	PDB header: fluorescent protein Chain: B: PDB Molecule: green fluorescent protein; PDBTitle: crystal structure of vsfgfp-0
45	c5fguA_	Alignment	not modelled	100.0	24	PDB header: metal binding, dna binding protein Chain: A: PDB Molecule: green fluorescent protein,extracellular streptodornase d; PDBTitle: structure of sda1 nuclease apoprotein as an egfp fixed-arm fusion
46	c3ai5A_	Alignment	not modelled	100.0	26	PDB header: fluorescent protein, transcription Chain: A: PDB Molecule: yeast enhanced green fluorescent protein,ubiquitin; PDBTitle: crystal structure of yeast enhanced green fluorescent protein-2 ubiquitin fusion protein
47	c4bduC_	Alignment	not modelled	100.0	24	PDB header: apoptosis Chain: C: PDB Molecule: green fluorescent protein, apoptosis regulator bax; PDBTitle: bax bh3-in-groove dimer (gfp)
48	c4anjA_	Alignment	not modelled	100.0	25	PDB header: motor protein/metal-bindng protein Chain: A: PDB Molecule: unconventional myosin-vi, green fluorescent protein; PDBTitle: myosin vi (mdinsert2-gfp fusion) pre-powerstroke state (mg.adp.alf4)
49	c4oy4A_	Alignment	not modelled	100.0	55	PDB header: calcium binding, fluorescent, transferas Chain: A: PDB Molecule: chimera protein of calmodulin, gpf-like protein eosfp, and PDBTitle: calcium-free campari v0.2
50	c4i2yB_	Alignment	not modelled	100.0	61	PDB header: fluorescent protein Chain: B: PDB Molecule: rgco1; PDBTitle: crystal structure of the genetically encoded calcium indicator rgco1
51	c3lf4B_	Alignment	not modelled	100.0	60	PDB header: fluorescent protein Chain: B: PDB Molecule: fluorescent timer precursor blue102; PDBTitle: crystal structure of fluorescent timer precursor blue102
52	c3u0kA_	Alignment	not modelled	100.0	54	PDB header: fluorescent protein Chain: A: PDB Molecule: rcamp; PDBTitle: crystal structure of the genetically encoded calcium indicator rcamp
53	c2gw4D_	Alignment	not modelled	100.0	53	PDB header: luminescent protein Chain: D: PDB Molecule: kaede; PDBTitle: crystal structure of stony coral fluorescent protein kaede,

						red form
54	c3u8pB_	Alignment	not modelled	100.0	26	PDB header: fluorescent protein, electron transport Chain: B: PDB Molecule: cytochrome b562 integral fusion with enhanced green PDBTitle: cytochrome b562 integral fusion with egfp
55	c3cfhB_	Alignment	not modelled	100.0	50	PDB header: fluorescent protein Chain: B: PDB Molecule: gfp-like photoswitchable fluorescent protein; PDBTitle: photoswitchable red fluorescent protein psrfp, off-state
56	c3akoG_	Alignment	not modelled	100.0	29	PDB header: fluorescent protein Chain: G: PDB Molecule: venus; PDBTitle: crystal structure of the reassembled venus
57	c2g3dB_	Alignment	not modelled	100.0	21	PDB header: luminescent protein Chain: B: PDB Molecule: green fluorescent protein; PDBTitle: structure of s65g y66a gfp variant after spontaneous2 peptide hydrolysis
58	c3evpA_	Alignment	not modelled	100.0	30	PDB header: signaling protein Chain: A: PDB Molecule: green fluorescent protein,green fluorescent protein; PDBTitle: crystal structure of circular-permuted egfp
59	c3evrA_	Alignment	not modelled	100.0	31	PDB header: signaling protein Chain: A: PDB Molecule: myosin light chain kinase, green fluorescent protein, PDBTitle: crystal structure of calcium bound monomeric gcamp2
60	c3osrA_	Alignment	not modelled	100.0	29	PDB header: fluorescent protein, transport protein Chain: A: PDB Molecule: maltose-binding periplasmic protein,green fluorescent PDBTitle: maltose-bound maltose sensor engineered by insertion of circularly2 permuted green fluorescent protein into e. coli maltose binding3 protein at position 311
61	c3lf4A_	Alignment	not modelled	100.0	69	PDB header: fluorescent protein Chain: A: PDB Molecule: fluorescent timer precursor blue102; PDBTitle: crystal structure of fluorescent timer precursor blue102
62	c2gw4C_	Alignment	not modelled	100.0	55	PDB header: luminescent protein Chain: C: PDB Molecule: kaede; PDBTitle: crystal structure of stony coral fluorescent protein kaede, red form
63	c2a56A_	Alignment	not modelled	99.9	52	PDB header: luminescent protein Chain: A: PDB Molecule: gfp-like non-fluorescent chromoprotein fp595 chain 1; PDBTitle: fluorescent protein asfp595, a143s, on-state, 5min irradiation
64	c3ek7A_	Alignment	not modelled	99.9	27	PDB header: fluorescent protein Chain: A: PDB Molecule: myosin light chain kinase, green fluorescent protein, PDBTitle: calcium-saturated gcamp2 dimer
65	c3osqA_	Alignment	not modelled	99.7	31	PDB header: fluorescent protein, transport protein Chain: A: PDB Molecule: maltose-binding periplasmic protein,green fluorescent PDBTitle: maltose-bound maltose sensor engineered by insertion of circularly2 permuted green fluorescent protein into e. coli maltose binding3 protein at position 175
66	c2g16A_	Alignment	not modelled	99.6	36	PDB header: luminescent protein Chain: A: PDB Molecule: green fluorescent protein; PDBTitle: structure of s65a y66s gfp variant after backbone2 fragmentation
67	c3cglF_	Alignment	not modelled	98.4	81	PDB header: fluorescent protein Chain: F: PDB Molecule: gfp-like fluorescent chromoprotein dsfp483; PDBTitle: crystal structure and raman studies of dsfp483, a cyan fluorescent2 protein from discosoma striata
68	c3akoH_	Alignment	not modelled	97.2	19	PDB header: fluorescent protein Chain: H: PDB Molecule: venus; PDBTitle: crystal structure of the reassembled venus
69	c4jg9B_	Alignment	not modelled	74.2	15	PDB header: lipid binding protein Chain: B: PDB Molecule: lipoprotein; PDBTitle: x-ray crystal structure of a putative lipoprotein from bacillus2 anthracis
70	dltywa_	Alignment	not modelled	70.4	21	Fold: Single-stranded right-handed beta-helix Superfamily: Pectin lyase-like Family: P22 tailspike protein
71	c2xc1A_	Alignment	not modelled	67.9	21	PDB header: hydrolase Chain: A: PDB Molecule: bifunctional tail protein; PDBTitle: full-length tailspike protein mutant y108w of bacteriophage p22
72	c3riqA_	Alignment	not modelled	41.4	13	PDB header: viral protein Chain: A: PDB Molecule: tailspike protein; PDBTitle: siphovirus 9na tailspike receptor binding domain
73	c4r8oB_	Alignment	not modelled	36.0	17	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a duf3836 family protein (bvu_1206) from2 bacteroides vulgatus atcc 8482 at 2.50 a resolution
74	c4r03A_	Alignment	not modelled	34.8	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a duf3836 family protein (bdi_3222) from2 parabacteroides distasonis atcc 8503 at 1.50 a resolution
75	c2k6zA_	Alignment	not modelled	32.2	24	PDB header: metal transport Chain: A: PDB Molecule: putative uncharacterized protein ttha1943; PDBTitle: solution structures of copper loaded form pcua (trans2 conformation of the peptide bond involving the nitrogen of3 p14)
76	dlu1sa1	Alignment	not modelled	30.4	17	Fold: Sm-like fold Superfamily: Sm-like ribonucleoproteins Family: Pleiotropic translational regulator Hfq
77	c2k4vA_	Alignment	not modelled	30.0	27	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein pa1076; PDBTitle: solution structure of uncharacterized protein pa1076 from pseudomonas2 aeruginosa. northeast structural genomics consortium (nesg) target3 pat3, ontario center for structural

						proteomics target pa1076 . PDB header: chaperone Chain: A: PDB Molecule: sco3965; PDBTitle: the crystal structure of a cu(i) metallochaperone from2 streptomyces lividans in its apo form
78	c3zk0A_	Alignment	not modelled	29.3	17	PDB header: replication Chain: A: PDB Molecule: replication protein repb; PDBTitle: crystal structure of the replication initiator protein2 encoded on plasmid pmv158 (repb), trigonal form, to 2.7 ang3 resolution
79	c3dkxA_	Alignment	not modelled	26.9	30	PDB header: metal binding protein Chain: B: PDB Molecule: hypothetical periplasmic protein; PDBTitle: crystal structure of a calcium binding protein (bdi_1975) from2 parabacteroides distasonis atcc 8503 at 2.00 a resolution
80	c3u1wB_	Alignment	not modelled	26.4	9	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: conserved domain protein; PDBTitle: crystal structure of a conserved domain protein (sp_1775) from2 streptococcus pneumoniae tigr4 at 1.91 a resolution
81	c4iajC_	Alignment	not modelled	25.7	31	PDB header: transcription/protein binding Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution structure of human phf20 tudor2 domain bound to a p53 segment2 containing a dimethyllysine analog p53k370me2
82	c2ldmA_	Alignment	not modelled	23.1	17	PDB header: viral protein Chain: A: PDB Molecule: salmonella typhimurium db7155 bacteriophage det7 PDBTitle: structure of the receptor-binding protein of bacteriophage2 det7: a podoviral tailspike in a myovirus
83	c2v5iA_	Alignment	not modelled	22.9	16	Fold: Galactose-binding domain-like Superfamily: Galactose-binding domain-like Family: Family 29 carbohydrate binding module, CBM29
84	d1gwma_	Alignment	not modelled	22.3	30	Fold: Restriction endonuclease-like Superfamily: Restriction endonuclease-like Family: Exodeoxyribonuclease V beta chain (RecB), C-terminal domain
85	d1w36b3	Alignment	not modelled	21.6	26	Fold: Common fold of diphtheria toxin/transcription factors/cytochrome f Superfamily: DR1885-like metal-binding protein Family: DR1885-like metal-binding protein
86	d1x9la_	Alignment	not modelled	21.0	21	Fold: MHC antigen-recognition domain Superfamily: MHC antigen-recognition domain Family: MHC antigen-recognition domain
87	d1hdmb2	Alignment	not modelled	17.7	11	PDB header: transcription regulator Chain: A: PDB Molecule: phd finger protein 20; PDBTitle: crystal structure of tudor domain 2 of human phd finger protein 20
88	c3qiiA_	Alignment	not modelled	16.8	17	PDB header: lyase Chain: A: PDB Molecule: aprataxin and pnk-like factor; PDBTitle: first pbz domain of human aplf protein in complex with2 ribofuranosyladenosine
89	c2kqdA_	Alignment	not modelled	16.6	25	PDB header: transport protein Chain: B: PDB Molecule: f1 capsule-anchoring protein; PDBTitle: conserved hydrophobic clusters on the surface of the caf1a usher2 c-terminal domain are important for f1 antigen assembly
90	c2xetB_	Alignment	not modelled	16.2	29	Fold: Lipocalins Superfamily: Lipocalins Family: Fatty acid binding protein-like
91	d2cbra_	Alignment	not modelled	16.2	7	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a nigd-like protein (baccac_02139) from2 bacteroides caccae atcc 43185 at 2.39 a resolution
92	c4pqxC_	Alignment	not modelled	15.5	21	PDB header: membrane protein Chain: B: PDB Molecule: voltage-dependent r-type calcium channel subunit alpha-1e; PDBTitle: crystal structure of ca2+/cam-cav2.3 iq domain complex
93	c3dvkB_	Alignment	not modelled	14.3	75	PDB header: protein binding Chain: A: PDB Molecule: phd finger protein 20-like 1; PDBTitle: solution structure of the tudor domain of phd finger2 protein 20-like 1
94	c2equA_	Alignment	not modelled	14.1	11	Fold: MHC antigen-recognition domain Superfamily: MHC antigen-recognition domain Family: MHC antigen-recognition domain
95	d1k8ib2	Alignment	not modelled	13.9	11	PDB header: membrane protein, signaling protein Chain: B: PDB Molecule: voltage-dependent r-type calcium channel subunit PDBTitle: crystal structure of the r-type calcium channel (cav2.3) iq2 domain and ca2+calmodulin complex
96	c3bxiB_	Alignment	not modelled	13.1	75	Fold: MFPT repeat-like Superfamily: MFPT repeat-like Family: MFPT repeat
97	d2bjra2	Alignment	not modelled	12.6	23	PDB header: histone binding protein Chain: A: PDB Molecule: maltose-binding periplasmic protein,linker,saga-associated PDBTitle: complex structure of sgf29 and dimethylated h3k4
98	c3mp6A_	Alignment	not modelled	12.2	21	Fold: SH3-like barrel Superfamily: C-terminal domain of transcriptional repressors Family: Transcriptional repressor protein KorB
99	d1igga_	Alignment	not modelled	12.1	45	