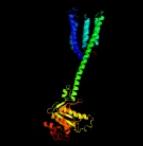
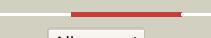
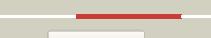
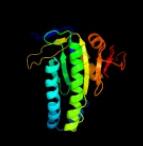
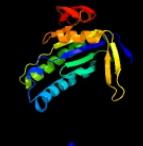


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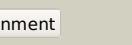
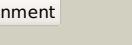
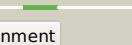
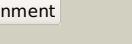
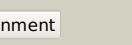
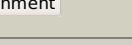
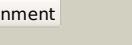
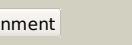
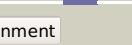
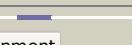
Email	mdejesus@rockefeller.edu
Description	RVBD1625c_(cya)_1826621_1827952
Date	Fri Aug 2 13:30:21 BST 2019
Unique Job ID	4ee589b5a66987da

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c6r4oA_			100.0	21	PDB header: membrane protein Chain: A: PDB Molecule: adenylate cyclase 9; PDBTitle: structure of a truncated adenylyl cyclase bound to mant-gtp, forskolin2 and an activated stimulatory galphas protein
2	c6fhtB_			100.0	24	PDB header: lyase Chain: B: PDB Molecule: bacteriophytochrome,adenylate cyclase; PDBTitle: crystal structure of an artificial phytochrome regulated2 adenylate/guanylate cyclase in its dark adapted pr form
3	c6r4pA_			100.0	36	PDB header: membrane protein Chain: A: PDB Molecule: adenylate cyclase 9; PDBTitle: structure of a soluble domain of adenylyl cyclase bound to an2 activated stimulatory g protein
4	c5o5kC_			100.0	85	PDB header: membrane protein Chain: C: PDB Molecule: adenylate cyclase; PDBTitle: x-ray structure of a bacterial adenylyl cyclase soluble domain
5	c4yusaA_			100.0	25	PDB header: lyase Chain: A: PDB Molecule: family 3 adenylate cyclase; PDBTitle: crystal structure of photoactivated adenylyl cyclase of a2 cyanobacteriaoscillatoria acuminata in hexagonal form
6	c5nbyA_			100.0	20	PDB header: lyase Chain: A: PDB Molecule: beta subunit of photoactivated adenylyl cyclase; PDBTitle: structure of a bacterial light-regulated adenylyl cyclase
7	c4clIA_			100.0	20	PDB header: lyase Chain: A: PDB Molecule: adenylate cyclase type 10; PDBTitle: crystal structure of human soluble adenylyl cyclase in complex with2 bicarbonate
8	c1cjkA_			100.0	33	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 adenylyl2 cyclase: complex with adenosine 5'-(alpha thio)-triphosphate (rp),3 mg, and mn
9	d1azsa_			100.0	33	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
10	d1azsb_			100.0	37	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
11	c1y10C_			100.0	27	PDB header: lyase Chain: C: PDB Molecule: hypothetical protein rv1264/mt1302; PDBTitle: mycobacterial adenylyl cyclase rv1264, holoenzyme, inhibited state

12	c2w01C			100.0	24	PDB header: lyase Chain: C: PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of the guanylyl cyclase cya2
13	c1yk9A			100.0	98	PDB header: lyase Chain: A: PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of a mutant form of the mycobacterial2 adenyl cyclase rv1625c
14	c1wc6B			100.0	25	PDB header: lyase Chain: B: PDB Molecule: adenylate cyclase; PDBTitle: soluble adenyl cyclase cyac from s. platensis in complex2 with rp-atpalphaS in presence of bicarbonate
15	d1wc1a			100.0	25	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
16	c3r5gb			100.0	28	PDB header: lyase Chain: B: PDB Molecule: cyab; PDBTitle: crystal structure of the adenylyl cyclase cyab from p. aeruginosa
17	c3uvjC			100.0	32	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.
18	c6aoaA			100.0	36	PDB header: lyase Chain: A: PDB Molecule: bacterio-rhodopsin/guanylyl cyclase 1 fusion protein; PDBTitle: monomeric crystal structure of the e497/c566d double mutant of the2 guanylyl cyclase domain of the rhogc fusion protein from the aquatic3 fungus blastocladiella emersonii
19	d1fx2a			100.0	22	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
20	c2wz1B			100.0	39	PDB header: lyase Chain: B: PDB Molecule: guanylate cyclase soluble subunit beta-1; PDBTitle: structure of the catalytic domain of human soluble guanylate cyclase 12 beta 3.
21	d1fx4a		not modelled	100.0	20	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
22	c3et6A		not modelled	100.0	50	PDB header: lyase Chain: A: PDB Molecule: soluble guanylyl cyclase beta; PDBTitle: the crystal structure of the catalytic domain of a eukaryotic2 guanylyl cyclase PDB header: hydrolase Chain: B: PDB Molecule: adenylate/guanylyl cyclase/hydrolase, alpha/beta fold PDBTitle: crystal structure of adenylate/guanylyl cyclase/hydrolase from2 silicibacter pomeroyi
23	c3mr7B		not modelled	99.9	27	PDB header: hydrolase Chain: A: PDB Molecule: lipj; PDBTitle: mycobacterium tuberculosis adenylyl cyclase rv1900c chd, in complex2 with a substrate analog.
24	c1ybua		not modelled	99.9	23	PDB header: lyase Chain: E: PDB Molecule: ma1120; PDBTitle: crystal structure of adenylyl cyclase from mycobacterium avium ma11202 wild type
25	c4wp3E		not modelled	99.9	21	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
26	c2qv6D		not modelled	97.2	13	PDB header: signaling protein Chain: E: PDB Molecule: guanylyl cyclase soluble subunit beta-1; PDBTitle: crystal structure of the signaling helix coiled-coil doimain2 of the beta-1 subunit of the soluble guanylyl cyclase
27	c3chlE		not modelled	96.3	15	PDB header: signaling protein Chain: A: PDB Molecule: response regulator/ggdef domain protein; PDBTitle: crystal structure of full-length wpsr from pseudomonas syringae
28	c3i5aA		not modelled	94.9	12	

29	c3i5cA_		Alignment	not modelled	94.4	15	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
30	c5llxB_		Alignment	not modelled	94.0	12	PDB header: transferase Chain: B: PDB Molecule: diguanylate cyclase (ggdef) domain-containing protein; PDBTitle: bacteriophytochrome activated diguanylyl cyclase from idiomarina2 species a281 with gtp bound
31	c3breA_		Alignment	not modelled	93.2	14	PDB header: signaling protein Chain: A: PDB Molecule: probable two-component response regulator; PDBTitle: crystal structure of p.aeruginosa pa3702
32	c4zmuD_		Alignment	not modelled	93.2	15	PDB header: lyase Chain: D: PDB Molecule: diguanylate cyclase; PDBTitle: dcsbis, a diguanylate cyclase from pseudomonas aeruginosa
33	c4h54B_		Alignment	not modelled	92.5	9	PDB header: transferase Chain: B: PDB Molecule: diguanylate cyclase ydeh; PDBTitle: crystal structure of the diguanylate cyclase dgcz
34	c6d9mA_		Alignment	not modelled	92.2	15	PDB header: hydrolase Chain: A: PDB Molecule: fusion protein of endolysin,response receiver sensor PDBTitle: t4-lysozyme fusion to geobacter ggdef
35	c1w25B_		Alignment	not modelled	89.5	13	PDB header: signaling protein Chain: B: PDB Molecule: stalked-cell differentiation controlling protein; PDBTitle: response regulator pled in complex with c-digmp
36	c3i5bA_		Alignment	not modelled	89.1	16	PDB header: signaling protein Chain: A: PDB Molecule: wspr response regulator; PDBTitle: crystal structure of the isolated ggdef domain of wpsr from2 pseudomonas aeruginosa
37	c3ezuA_		Alignment	not modelled	87.4	16	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 a resolution
38	c5xgdA_		Alignment	not modelled	84.9	11	PDB header: transcription Chain: A: PDB Molecule: uncharacterized protein pa0861; PDBTitle: crystal structure of the pas-ggdef-eal domain of pa0861 from2 pseudomonas aeruginosa in complex with gtp
39	c4ymeA_		Alignment	not modelled	84.5	16	PDB header: lyase Chain: A: PDB Molecule: sensory box/ggdef family protein; PDBTitle: crystal structure of a sensory box/ggdef family protein (cc_0091) from2 caulobacter crescentus cb15 at 1.40 a resolution (psi community3 target, shapiro)
40	c3ignA_		Alignment	not modelled	82.0	8	PDB header: transferase Chain: A: PDB Molecule: diguanylate cyclase; PDBTitle: crystal structure of the ggdef domain from marinobacter aquaeolei2 diguanylate cyclase complexed with c-di-gmp - northeast structural3 genomics consortium target mqr89a
41	c4urgB_		Alignment	not modelled	81.4	16	PDB header: lyase Chain: B: PDB Molecule: diguanylate cyclase; PDBTitle: crystal structure of ggdef domain from t.maritima (active-like dimer)
42	c4dmzb_		Alignment	not modelled	81.1	12	PDB header: nucleotide-binding protein Chain: B: PDB Molecule: putative uncharacterized protein peld; PDBTitle: peld 156-455 from pseudomonas aeruginosa pa14, apo form
43	c3hvwA_		Alignment	not modelled	79.7	4	PDB header: lyase Chain: A: PDB Molecule: diguanylate-cyclase (dgc); PDBTitle: crystal structure of the ggdef domain of the pa2567 protein from2 pseudomonas aeruginosa, northeast structural genomics consortium3 target par365c
44	c4wxoA_		Alignment	not modelled	78.4	12	PDB header: transferase Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: sadc (300-487) from pseudomonas aeruginosa pa01
45	d1w25a3		Alignment	not modelled	78.2	13	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: GGDEF domain
46	c4iobA_		Alignment	not modelled	78.1	18	PDB header: lyase Chain: A: PDB Molecule: diguanylate cyclase tpbb; PDBTitle: crystal structure of the ggdef domain of pa1120 (yfin or tpbb) from2 pseudomonas aeruginosa at 2.7 ang.
47	c3mtkA_		Alignment	not modelled	76.6	9	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
48	c5euhA_		Alignment	not modelled	75.2	15	PDB header: membrane protein Chain: A: PDB Molecule: putative ggdef domain membrane protein; PDBTitle: crystal structure of the c-di-gmp-bound ggdef domain of p. fluorescens2 gcbc
49	c5cupB_		Alignment	not modelled	74.7	25	PDB header: transferase Chain: B: PDB Molecule: phosphate propanoyltransferase; PDBTitle: structure of rhodopseudomonas palustris pdul - phosphate bound form
50	c3tvkA_		Alignment	not modelled	74.1	9	PDB header: transferase Chain: A: PDB Molecule: diguanylate cyclase dgcz; PDBTitle: diguanylate cyclase domain of dgcz
51	c4w8yA_		Alignment	not modelled	72.7	13	PDB header: rna binding protein Chain: A: PDB Molecule: crispr system cmr subunit cmr2; PDBTitle: structure of full length cmr2 from pyrococcus furiosus (manganese2 bound form)
52	c3ungC_		Alignment	not modelled	72.4	11	PDB header: unknown function Chain: C: PDB Molecule: cmr2dhd; PDBTitle: structure of the cmr2 subunit of the crispr rna silencing complex

53	c3hvaA		Alignment	not modelled	72.3	12	PDB header: transferase Chain: A; PDB Molecule: protein fimx; PDBTitle: crystal structure of fimx ggdef domain from pseudomonas aeruginosa
54	c6eibC		Alignment	not modelled	71.6	16	PDB header: transferase Chain: C; PDB Molecule: sensory box/ggdef family protein; PDBTitle: structure of the active ggeef domain of a diguanylate cyclase from vibrio cholerae.
55	c4zmmB		Alignment	not modelled	68.7	11	PDB header: transferase Chain: B; PDB Molecule: diguanylate cyclase; PDBTitle: ggdef domain of dcsbis complexed with c-di-gmp
56	c4zvhB		Alignment	not modelled	68.0	18	PDB header: signaling protein Chain: B; PDB Molecule: diguanylate cyclase dosc; PDBTitle: crystal structure of ggdef domain of the e. coli dosc - form iv
57	c5m3cB		Alignment	not modelled	63.1	13	PDB header: hydrolase Chain: B; PDB Molecule: diguanylate cyclase; PDBTitle: structure of the hybrid domain (ggdef-eal) of pa0575 from pseudomonas2 aeruginosa pao1 at 2.8 ang. with gtp and ca2+ bound to the active3 site of the ggdef domain
58	c6ifnA		Alignment	not modelled	57.9	15	PDB header: rna binding protein Chain: A; PDB Molecule: type iii-a crispr-associated protein csm1; PDBTitle: crystal structure of type iii-a crispr csm complex
59	c3pjwA		Alignment	not modelled	55.2	8	PDB header: lyase Chain: A; PDB Molecule: cyclic dimeric gmp binding protein; PDBTitle: structure of pseudomonas fluorescence lapd ggdef-eal dual domain, i23
60	c3icIA		Alignment	not modelled	54.4	14	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 consortium target mcr174c
61	c2x5eA		Alignment	not modelled	53.0	20	PDB header: unknown function Chain: A; PDB Molecule: upf0271 protein pa4511; PDBTitle: crystal structure of the hypothetical protein pa4511 from2 pseudomonas aeruginosa
62	d1v6ta		Alignment	not modelled	52.4	22	Fold: 7-stranded beta/alpha barrel Superfamily: Glycoside hydrolase/deacetylase Family: LamB/YcsF-like
63	c4euva		Alignment	not modelled	48.8	11	PDB header: signaling protein Chain: A; PDB Molecule: peld; PDBTitle: crystal structure of peld 158-ct from pseudomonas aeruginosa pao1, in2 complex with c-di-gmp, form 1
64	d2dfa1		Alignment	not modelled	48.5	24	Fold: 7-stranded beta/alpha barrel Superfamily: Glycoside hydrolase/deacetylase Family: LamB/YcsF-like
65	c3qyyB		Alignment	not modelled	48.5	12	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
66	c4rnha		Alignment	not modelled	24.4	13	PDB header: transferase, hydrolase Chain: A; PDB Molecule: motility regulator; PDBTitle: pamora tandem diguanylate cyclase - phosphodiesterase, c-di-gmp2 complex
67	c5buzC		Alignment	not modelled	19.0	19	PDB header: transport protein Chain: C; PDB Molecule: snap receptor-like protein; PDBTitle: crystal structure of a complex between the snare vam3 and the hops2 vps33-vps16 subcomplex from chaetomium thermophilum
68	d1m9dc		Alignment	not modelled	18.1	28	Fold: Retrovirus capsid protein, N-terminal core domain Superfamily: Retrovirus capsid protein, N-terminal core domain Family: Retrovirus capsid protein, N-terminal core domain
69	c2xgva		Alignment	not modelled	17.9	11	PDB header: viral protein Chain: A; PDB Molecule: psiv capsid n-terminal domain; PDBTitle: structure of the n-terminal domain of capsid protein from2 rabbit endogenous lentivirus (relik)
70	c5t4oA		Alignment	not modelled	17.8	11	PDB header: hydrolase Chain: A; PDB Molecule: atp synthase subunit alpha; PDBTitle: autoinhibited e. coli atp synthase state 1
71	c2pijhB		Alignment	not modelled	17.3	13	PDB header: transport protein Chain: B; PDB Molecule: transitional endoplasmic reticulum atpase; PDBTitle: strctrual model of the p97 n domain- np4 ubd complex
72	d2eiaa2		Alignment	not modelled	17.1	22	Fold: Retrovirus capsid protein, N-terminal core domain Superfamily: Retrovirus capsid protein, N-terminal core domain Family: Retrovirus capsid protein, N-terminal core domain
73	d1m9fd		Alignment	not modelled	17.0	28	Fold: Retrovirus capsid protein, N-terminal core domain Superfamily: Retrovirus capsid protein, N-terminal core domain Family: Retrovirus capsid protein, N-terminal core domain
74	d2pxrc1		Alignment	not modelled	16.3	28	Fold: Retrovirus capsid protein, N-terminal core domain Superfamily: Retrovirus capsid protein, N-terminal core domain Family: Retrovirus capsid protein, N-terminal core domain
75	c2wlvA		Alignment	not modelled	16.1	22	PDB header: viral protein Chain: A; PDB Molecule: gag polyprotein; PDBTitle: structure of the n-terminal capsid domain of hiv-2
76	c2n5IA		Alignment	not modelled	15.7	15	PDB header: hydrolase Chain: A; PDB Molecule: ribonuclease zc3h12a; PDBTitle: regnase-1 c-terminal domain
77	c4axkB		Alignment	not modelled	15.6	16	PDB header: isomerase Chain: B; PDB Molecule: 1-(5-phosphoribosyl)-5-(5'-phosphoribosylamino) PDBTitle: crystal structure of subhisa from the thermophile corynebacterium2 efficiens
78	c4rrfD		Alignment	not modelled	15.0	19	PDB header: ligase Chain: D; PDB Molecule: threonine--trna ligase; PDBTitle: editing domain of threonyl-trna synthetase from

						methanococcus2 jannaschii with l-ser3aa
79	c5fa0B_	Alignment	not modelled	14.1	18	PDB header: transferase Chain: B: PDB Molecule: putative n-acetyl glucosaminyl transferase; PDBTitle: the structure of the beta-3-deoxy-d-manno-oct-2-ulosonic acid2 transferase domain from wbbb
80	c6fkha_	Alignment	not modelled	13.9	9	PDB header: membrane protein Chain: A: PDB Molecule: atp synthase subunit alpha, chloroplastic; PDBTitle: chloroplast f1fo conformation 2
81	c2kjwA_	Alignment	not modelled	13.3	18	PDB header: ribosomal protein Chain: A: PDB Molecule: 30s ribosomal protein s6; PDBTitle: solution structure and backbone dynamics of the permutant p54-55
82	c1avoA_	Alignment	not modelled	13.3	33	PDB header: proteasome activator Chain: A: PDB Molecule: 11s regulator; PDBTitle: proteasome activator reg(alpha)
83	c5ggoB_	Alignment	not modelled	13.0	24	PDB header: sugar binding protein Chain: B: PDB Molecule: protein o-linked-mannose beta-1,2-n-o-mannose2 beta-1,2-n-acetylglucosaminyltransferase in complex with galnac-3 beta1,3-glcNAc-beta-pnp
84	c2hl2A_	Alignment	not modelled	12.7	19	PDB header: ligase Chain: A: PDB Molecule: threonyl-tRNA synthetase; PDBTitle: crystal structure of the editing domain of threonyl-tRNA2 synthetase from pyrococcus abyssi in complex with an3 analog of seryladenylate
85	c3dcaC_	Alignment	not modelled	12.4	13	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: rpa0582; PDBTitle: crystal structure of the rpa0582- protein of unknown2 function from rhodopseudomonas palustris- a structural3 genomics target
86	c6iqwA_	Alignment	not modelled	12.3	16	PDB header: RNA binding protein/RNA Chain: A: PDB Molecule: csm1; PDBTitle: cryo-em structure of csm effector complex
87	c2y0fD_	Alignment	not modelled	12.1	21	PDB header: oxidoreductase Chain: D: PDB Molecule: 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase; PDBTitle: structure of gcpe (ispG) from thermus thermophilus hb27
88	c3a6mB_	Alignment	not modelled	11.8	14	PDB header: chaperone Chain: B: PDB Molecule: protein grpe; PDBTitle: crystal structure of grpe from thermus thermophilus hb8
89	c3nvba_	Alignment	not modelled	11.5	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of n-terminal part of the protein bf1531 from2 bacteroides fragilis containing phosphatase domain complexed with mg3 and tungstate
90	c2xgyA_	Alignment	not modelled	11.1	17	PDB header: viral protein/isomerase Chain: A: PDB Molecule: relik capsid n-terminal domain; PDBTitle: complex of rabbit endogenous lentivirus (relik)capsid with2 cyclophilin a
91	d1v4ea_	Alignment	not modelled	11.1	16	Fold: Terpenoid synthases Superfamily: Terpenoid synthases Family: Isoprenyl diphosphate synthases
92	c5dn6A_	Alignment	not modelled	11.1	15	PDB header: hydrolase Chain: A: PDB Molecule: atp synthase subunit alpha; PDBTitle: atp synthase from paracoccus denitrificans
93	c4aniA_	Alignment	not modelled	10.8	13	PDB header: chaperone Chain: A: PDB Molecule: protein grpe; PDBTitle: structural basis for the intermolecular communication between2 dnak and grpe in the dnak chaperone system from3 geobacillus kaustophilus hta426
94	c4tt1A_	Alignment	not modelled	10.7	25	PDB header: hydrolase Chain: A: PDB Molecule: deneddylase; PDBTitle: crystal structure of fragment 1600-1733 of hsv1 ul36, native
95	d2gsva1	Alignment	not modelled	10.6	16	Fold: Open three-helical up-and-down bundle Superfamily: YvfG-like Family: YvfG-like
96	c2vfwB_	Alignment	not modelled	10.5	13	PDB header: transferase Chain: B: PDB Molecule: short-chain z-isoprenyl diphosphate synthetase; PDBTitle: rv1086 native
97	d2crua1	Alignment	not modelled	10.2	15	Fold: RuvA C-terminal domain-like Superfamily: Double-stranded DNA-binding domain Family: Double-stranded DNA-binding domain
98	c1l6nA_	Alignment	not modelled	10.2	28	PDB header: viral protein Chain: A: PDB Molecule: gag polyprotein; PDBTitle: structure of the n-terminal 283-residue fragment of the hiv-2 1 gag polyprotein
99	d1k8ba_	Alignment	not modelled	10.1	25	Fold: Ribosome binding domain-like Superfamily: Translation initiation factor 2 beta, alF2beta, N-terminal domain Family: Translation initiation factor 2 beta, alF2beta, N-terminal domain