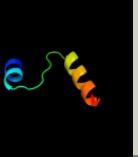
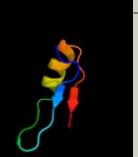
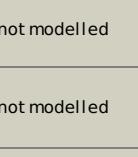


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P76299
Date	Thu Jan 5 12:21:41 GMT 2012
Unique Job ID	d3850a5c16b2d61f

Detailed template information

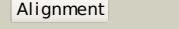
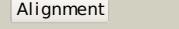
#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2j1hA_	Alignment		100.0	34	PDB header: protein transport Chain: A; PDB Molecule: yop proteins translocation protein u; PDBTitle: crystal structure of the cytoplasmic domain of yersinia2 pestis yscu n263a mutant
2	c3bzrA_	Alignment		100.0	28	PDB header: membrane protein, protein transport Chain: A; PDB Molecule: escu; PDBTitle: crystal structure of escu c-terminal domain with n262d mutation, space2 group p 41 21 2
3	d3bzra1	Alignment		100.0	28	Fold: EscU C-terminal domain-like Superfamily: EscU C-terminal domain-like Family: EscU C-terminal domain-like
4	c3t7yB_	Alignment		100.0	31	PDB header: protein transport Chain: B; PDB Molecule: yop proteins translocation protein u; PDBTitle: structure of an autocleavage-inactive mutant of the cytoplasmic domain2 of ct091, the yscu homologue of chlamydia trachomatis
5	c3c01H_	Alignment		99.9	20	PDB header: membrane protein, protein transport Chain: H; PDB Molecule: surface presentation of antigens protein spas; PDBTitle: crystal structural of native spas c-terminal domain
6	c3c00B_	Alignment		99.9	30	PDB header: membrane protein, protein transport Chain: B; PDB Molecule: escu; PDBTitle: crystal structural of the mutated g247t escu/spas c-terminal domain
7	c2vt1B_	Alignment		99.9	23	PDB header: membrane protein Chain: B; PDB Molecule: surface presentation of antigens protein spas; PDBTitle: crystal structure of the cytoplasmic domain of spa40, the2 specificity switch for the shigella flexneri type iii3 secretion system
8	c2yvqaA_	Alignment		87.1	17	PDB header: ligase Chain: A; PDB Molecule: carbamoyl-phosphate synthase; PDBTitle: crystal structure of mgs domain of carbamoyl-phosphate2 synthetase from homo sapiens
9	d1a0rp_	Alignment		76.9	17	Fold: Thioredoxin fold Superfamily: Thioredoxin-like Family: Phosducin
10	d1wo8a1	Alignment		75.8	20	Fold: Methylglyoxal synthase-like Superfamily: Methylglyoxal synthase-like Family: Methylglyoxal synthase, MgsA
11	d2nu7b1	Alignment		73.4	17	Fold: Flavodoxin-like Superfamily: Succinyl-CoA synthetase domains Family: Succinyl-CoA synthetase domains

12	d1a9xa2	Alignment		64.9	13	Fold: Methylglyoxal synthase-like Superfamily: Methylglyoxal synthase-like Family: Carbamoyl phosphate synthetase, large subunit allosteric, C-terminal domain
13	d1uk5a_	Alignment		62.6	24	Fold: Spectrin repeat-like Superfamily: BAG domain Family: BAG domain
14	d1lugoA_	Alignment		62.5	14	Fold: Spectrin repeat-like Superfamily: BAG domain Family: BAG domain
15	c3peuB_	Alignment		62.0	21	PDB header: hydrolase Chain: B: PDB Molecule: nucleoporin gle1; PDBTitle: s. cerevisiae dbp5 l327v c-terminal domain bound to gle1 h337r and ip6
16	d1m7ka_	Alignment		57.9	10	Fold: Spectrin repeat-like Superfamily: BAG domain Family: BAG domain
17	c1yj7A_	Alignment		57.0	17	PDB header: protein transport Chain: A: PDB Molecule: escj; PDBTitle: crystal structure of enteropathogenic e.coli (epec) type iii secretion2 system protein escj
18	d1d8ja_	Alignment		56.0	10	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: The central core domain of TFIIIE beta
19	c3a8yD_	Alignment		53.9	24	PDB header: hydrolase Chain: D: PDB Molecule: bag family molecular chaperone regulator 5; PDBTitle: crystal structure of the complex between the bag5 bd5 and2 hsp70 nbd
20	d1rv3a_	Alignment		53.6	34	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
21	d1eucl1	Alignment	not modelled	50.1	17	Fold: Flavodoxin-like Superfamily: Succinyl-CoA synthetase domains Family: Succinyl-CoA synthetase domains
22	d1mv8a2	Alignment	not modelled	49.8	10	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: 6-phosphogluconate dehydrogenase-like, N-terminal domain PDB header: transferase
23	c1r6xA_	Alignment	not modelled	49.5	25	Chain: A: PDB Molecule: atp:sulfate adenylyltransferase; PDBTitle: the crystal structure of a truncated form of yeast atp2 sulfate lyase, lacking the c-terminal aps kinase-like domain,3 in complex with sulfate
24	d2a7va1	Alignment	not modelled	49.1	34	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
25	c2a7vA_	Alignment	not modelled	49.1	34	PDB header: transferase Chain: A: PDB Molecule: serine hydroxymethyltransferase; PDBTitle: human mitochondrial serine hydroxymethyltransferase 2
26	d1ko7a1	Alignment	not modelled	48.5	12	Fold: MurF and HprK N-domain-like Superfamily: HprK N-terminal domain-like Family: HPr kinase/phoshatase HprK N-terminal domain
27	d1g8fa2	Alignment	not modelled	47.8	24	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: ATP sulfurylase catalytic domain
28	c2o14A_	Alignment	not modelled	47.2	16	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein yxim; PDBTitle: x-ray crystal structure of protein yxim_bacsu from bacillus2 subtilis. northeast structural genomics consortium target3 sr595

29	c2vycA		Alignment	not modelled	46.8	22	PDB header: lyase Chain: A: PDB Molecule: biodegradative arginine decarboxylase; PDBTitle: crystal structure of acid induced arginine decarboxylase2 from e. coli
30	d2csua3		Alignment	not modelled	44.8	27	Fold: Flavodoxin-like Superfamily: Succinyl-CoA synthetase domains Family: Succinyl-CoA synthetase domains
31	d1t9ba1		Alignment	not modelled	43.5	13	Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Pyruvate oxidase and decarboxylase, middle domain
32	d1knxa1		Alignment	not modelled	43.4	15	Fold: MurF and HprK N-domain-like Superfamily: HprK N-terminal domain-like Family: HPr kinase/phosphatase HprK N-terminal domain
33	c3nysA		Alignment	not modelled	41.2	19	PDB header: transferase Chain: A: PDB Molecule: aminotransferase wbpe; PDBTitle: x-ray structure of the k185a mutant of wbpe (wlbe) from pseudomonas2 aeruginosa in complex with plp at 1.45 angstrom resolution
34	d1bj4a		Alignment	not modelled	37.6	29	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
35	c1c4kA		Alignment	not modelled	37.5	13	PDB header: lyase Chain: A: PDB Molecule: protein (ornithine decarboxylase); PDBTitle: ornithine decarboxylase mutant (gly121tyr)
36	c2r18A		Alignment	not modelled	37.2	26	PDB header: viral protein Chain: A: PDB Molecule: capsid assembly protein vp3; PDBTitle: structural insights into the multifunctional protein vp3 of2 birnaviruses
37	d1oi7a1		Alignment	not modelled	36.7	15	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: CoA-binding domain
38	c3iynO		Alignment	not modelled	35.9	24	PDB header: virus Chain: O: PDB Molecule: hexon-associated protein; PDBTitle: 3.6-angstrom cryoem structure of human adenovirus type 5
39	c2qjfB		Alignment	not modelled	35.0	18	PDB header: transferase Chain: B: PDB Molecule: bifunctional 3'-phosphoadenosine 5'- PDBTitle: crystal structure of atp-sulfurylase domain of human paps2 synthetase 1
40	c3bcxA		Alignment	not modelled	34.0	18	PDB header: transferase Chain: A: PDB Molecule: cdp-6-deoxy-l-threo-d-glycero-4-hexulose-3- PDBTitle: e1 dehydrase
41	d2nu7a1		Alignment	not modelled	33.8	12	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: CoA-binding domain
42	d1gqoa		Alignment	not modelled	33.1	34	Fold: Flavodoxin-like Superfamily: Type II 3-dehydroquinate dehydratase Family: Type II 3-dehydroquinate dehydratase
43	d1f6ga		Alignment	not modelled	32.9	13	Fold: Voltage-gated potassium channels Superfamily: Voltage-gated potassium channels Family: Voltage-gated potassium channels
44	d1vmda		Alignment	not modelled	32.7	14	Fold: Methylglyoxal synthase-like Superfamily: Methylglyoxal synthase-like Family: Methylglyoxal synthase, MgsA
45	c3me5A		Alignment	not modelled	31.9	26	PDB header: transferase Chain: A: PDB Molecule: cytosine-specific methyltransferase; PDBTitle: crystal structure of putative dna cytosine methylase from shigella2 flexneri 2a str. 301
46	d1qzxa2		Alignment	not modelled	31.3	35	Fold: Signal peptide-binding domain Superfamily: Signal peptide-binding domain Family: Signal peptide-binding domain
47	c1yrwA		Alignment	not modelled	30.6	18	PDB header: transferase Chain: A: PDB Molecule: protein arna; PDBTitle: crystal structure of e.coli arna transformylase domain
48	c3e6gA		Alignment	not modelled	30.2	18	PDB header: lyase Chain: A: PDB Molecule: cystathione gamma-lyase-like protein; PDBTitle: crystal structure of xomtc, a cystathione c-lyase-like2 protein from xanthomonas oryzae pv.oryzae
49	d2naca2		Alignment	not modelled	29.5	27	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
50	c3dm5A		Alignment	not modelled	29.5	19	PDB header: rna binding protein, transport protein Chain: A: PDB Molecule: signal recognition 54 kda protein; PDBTitle: structures of srp54 and srp19, the two proteins assembling2 the ribonucleic core of the signal recognition particle3 from the archaeon pyrococcus furiosus.
51	d1c4ka2		Alignment	not modelled	28.7	13	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Ornithine decarboxylase major domain
52	d1ydwa1		Alignment	not modelled	28.6	16	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
53	d1vl2a1		Alignment	not modelled	28.5	17	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
54	c2po3B		Alignment	not modelled	28.4	17	PDB header: transferase Chain: B: PDB Molecule: 4-dehydrase; PDBTitle: crystal structure analysis of desi in the presence of its2 tdp-sugar product

55	c3n8kG		Alignment	not modelled	28.1	39	PDB header: lyase Chain: G; PDB Molecule: 3-dehydroquinate dehydratase; PDBTitle: type ii dehydroquinase from mycobacterium tuberculosis complexed with 2 citrazinic acid
56	d1ni5a1		Alignment	not modelled	28.0	6	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: PP-loop ATPase
57	c2iqeA		Alignment	not modelled	27.6	25	PDB header: signaling protein Chain: A; PDB Molecule: signal recognition 54 kda protein; PDBTitle: soution structure of af54 m-domain
58	c3qi6B		Alignment	not modelled	27.5	17	PDB header: lyase Chain: B; PDB Molecule: cystathione gamma-synthase metb (cgs); PDBTitle: crystal structure of cystathione gamma-synthase metb (cgs) from2 mycobacterium ulcerans agy99
59	d1cs1a		Alignment	not modelled	27.5	12	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathione synthase-like
60	d1wy5a1		Alignment	not modelled	27.4	16	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: PP-loop ATPase
61	c3h7uA		Alignment	not modelled	27.0	20	PDB header: oxidoreductase Chain: A; PDB Molecule: aldo-keto reductase; PDBTitle: crystal structure of the plant stress-response enzyme akr4c9
62	d1d2ta		Alignment	not modelled	27.0	8	Fold: Acid phosphatase/Vanadium-dependent haloperoxidase Superfamily: Acid phosphatase/Vanadium-dependent haloperoxidase Family: Type 2 phosphatidic acid phosphatase, PAP2
63	c2uygF		Alignment	not modelled	26.6	43	PDB header: lyase Chain: F; PDB Molecule: 3-dehydroquinate dehydratase; PDBTitle: crystallographic structure of the typeii 3-dehydroquinate2 from thermus thermophilus
64	d1j20a1		Alignment	not modelled	26.4	8	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
65	c2csuB		Alignment	not modelled	26.4	27	PDB header: structural genomics, unknown function Chain: B; PDB Molecule: 457aa long hypothetical protein; PDBTitle: crystal structure of ph0766 from pyrococcus horikoshii ot3
66	c3f41F		Alignment	not modelled	26.4	12	PDB header: oxidoreductase Chain: F; PDB Molecule: putative oxidoreductase yhhx; PDBTitle: crystal structure of a probable oxidoreductase yhhx in2 triclinic form. northeast structural genomics target er647
67	d1hq1a		Alignment	not modelled	26.4	20	Fold: Signal peptide-binding domain Superfamily: Signal peptide-binding domain Family: Signal peptide-binding domain
68	c3nt5B		Alignment	not modelled	26.3	14	PDB header: oxidoreductase Chain: B; PDB Molecule: inositol 2-dehydrogenase/d-chiro-inositol 3-dehydrogenase; PDBTitle: crystal structure of myo-inositol dehydrogenase from bacillus subtilis2 with bound cofactor and product inosose
69	c2c7tA		Alignment	not modelled	26.3	35	PDB header: transferase Chain: A; PDB Molecule: glutamine-2-deoxy-scyllo-inosose PDBTitle: crystal structure of the plp-bound form of btr,2 a dual functional aminotransferase involved in butirosin3 biosynthesis.
70	c3dc1A		Alignment	not modelled	26.2	24	PDB header: transferase Chain: A; PDB Molecule: kynurenine/alpha-amino adipate aminotransferase PDBTitle: crystal structure of kynurenine aminotransferase ii complex with2 alpha-ketoglutarate
71	c1wziA		Alignment	not modelled	26.0	16	PDB header: oxidoreductase Chain: A; PDB Molecule: malate dehydrogenase; PDBTitle: structural basis for alteration of cofactor specificity of2 malate dehydrogenase from thermus flavus
72	d2ffha2		Alignment	not modelled	25.9	25	Fold: Signal peptide-binding domain Superfamily: Signal peptide-binding domain Family: Signal peptide-binding domain
73	d1ekqa		Alignment	not modelled	25.9	19	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Thiamin biosynthesis kinases
74	c3u80A		Alignment	not modelled	25.7	53	PDB header: unknown function Chain: A; PDB Molecule: 3-dehydroquinate dehydratase, type ii; PDBTitle: 1.60 angstrom resolution crystal structure of a 3-dehydroquinate2 dehydratase-like protein from bifidobacterium longum
75	d1uqra		Alignment	not modelled	25.7	43	Fold: Flavodoxin-like Superfamily: Type II 3-dehydroquinate dehydratase Family: Type II 3-dehydroquinate dehydratase
76	c2hroA		Alignment	not modelled	25.0	17	PDB header: transferase Chain: A; PDB Molecule: phosphoenolpyruvate-protein phosphotransferase; PDBTitle: structure of the full-length enzyme i of the pts system from2 staphylococcus carnosus
77	c1a5zA		Alignment	not modelled	25.0	25	PDB header: oxidoreductase Chain: A; PDB Molecule: l-lactate dehydrogenase; PDBTitle: lactate dehydrogenase from thermotoga maritima (tmldh)
78	c3aemD		Alignment	not modelled	25.0	9	PDB header: lyase Chain: D; PDB Molecule: methionine gamma-lyase; PDBTitle: reaction intermediate structure of entamoeba histolytica methionine2 gamma-lyase 1 containing michaelis complex and methionine imine-3 pyridoxamine-5-phosphate
79	c3dp1A		Alignment	not modelled	24.5	16	PDB header: ligase Chain: A; PDB Molecule: nad+ synthetase; PDBTitle: crystal structure of nad+ synthetase from burkholderia pseudomallei

80	d1h05a		Alignment	not modelled	24.5	39	Fold: Flavodoxin-like Superfamily: Type II 3-dehydroquinate dehydratase Family: Type II 3-dehydroquinate dehydratase
81	c3ndnC		Alignment	not modelled	24.3	6	PDB header: lyase Chain: C: PDB Molecule: o-succinylhomoserine sulfhydrylase; PDBTitle: crystal structure of o-succinylhomoserine sulfhydrylase from mycobacterium tuberculosis covalently bound to pyridoxal-5-phosphate
82	d2ji7a1		Alignment	not modelled	23.8	23	Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Pyruvate oxidase and decarboxylase, middle domain
83	c21bwA		Alignment	not modelled	23.2	22	PDB header: rna binding protein Chain: A: PDB Molecule: h/aca ribonucleoprotein complex subunit 2; PDBTitle: solution structure of the s. cerevisiae h/aca rnp protein nhp2p-s82w2 mutant
84	c2y8nC		Alignment	not modelled	22.8	19	PDB header: lyase Chain: C: PDB Molecule: 4-hydroxyphenylacetate decarboxylase large subunit; PDBTitle: crystal structure of glycyl radical enzyme
85	c2cb1A		Alignment	not modelled	22.7	12	PDB header: lyase Chain: A: PDB Molecule: o-acetyl homoserine sulfhydrylase; PDBTitle: crystal structure of o-acetyl homoserine sulfhydrylase2 from thermus thermophilus hb8,oh2.
86	c1zh8B		Alignment	not modelled	22.7	8	PDB header: oxidoreductase Chain: B: PDB Molecule: oxidoreductase; PDBTitle: crystal structure of oxidoreductase (tm0312) from thermotoga maritima2 at 2.50 a resolution
87	c2bn5A		Alignment	not modelled	22.7	11	PDB header: nuclear protein Chain: A: PDB Molecule: psi; PDBTitle: p-element somatic inhibitor protein complex with u1-70k2 proline-rich peptide
88	d1ui5a2		Alignment	not modelled	22.6	21	Fold: Tetracyclin repressor-like, C-terminal domain Superfamily: Tetracyclin repressor-like, C-terminal domain Family: Tetracyclin repressor-like, C-terminal domain
89	c3lwzC		Alignment	not modelled	22.4	34	PDB header: lyase Chain: C: PDB Molecule: 3-dehydroquinate dehydratase; PDBTitle: 1.65 angstrom resolution crystal structure of type ii 3-2 dehydroquinate dehydratase (aroq) from yersinia pestis
90	d1gtza		Alignment	not modelled	22.4	47	Fold: Flavodoxin-like Superfamily: Type II 3-dehydroquinate dehydratase Family: Type II 3-dehydroquinate dehydratase
91	c2r0tA		Alignment	not modelled	22.3	24	PDB header: transferase Chain: A: PDB Molecule: pyridoxamine 5-phosphate-dependent dehydratase; PDBTitle: crystal structure of gdp-4-keto-6-deoxymannose-3-dehydratase2 with a trapped plp-glutamate geminal diamine
92	d2c4va1		Alignment	not modelled	22.1	25	Fold: Flavodoxin-like Superfamily: Type II 3-dehydroquinate dehydratase Family: Type II 3-dehydroquinate dehydratase
93	c3c1aB		Alignment	not modelled	22.1	12	PDB header: oxidoreductase Chain: B: PDB Molecule: putative oxidoreductase; PDBTitle: crystal structure of a putative oxidoreductase (zp_00056571.1) from magnetospirillum magnetotacticum ms-1 at 1.85 a resolution
94	c3qh9A		Alignment	not modelled	21.7	13	PDB header: structural protein Chain: A: PDB Molecule: liprin-beta-2; PDBTitle: human liprin-beta2 coiled-coil
95	c3c19A		Alignment	not modelled	21.7	38	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein mk0293; PDBTitle: crystal structure of protein mk0293 from methanopyrus kandleri av19
96	d1rlga		Alignment	not modelled	21.5	20	Fold: Bacillus chorismate mutase-like Superfamily: L30e-like Family: L30e/L7ae ribosomal proteins
97	c2f3oB		Alignment	not modelled	21.5	17	PDB header: unknown function Chain: B: PDB Molecule: pyruvate formate-lyase 2; PDBTitle: crystal structure of a glycyl radical enzyme from archaeoglobus2 fulgidus
98	d1ibja		Alignment	not modelled	21.5	18	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathione synthase-like
99	c1ibjC		Alignment	not modelled	21.5	18	PDB header: lyase Chain: C: PDB Molecule: cystathione beta-lyase; PDBTitle: crystal structure of cystathione beta-lyase from arabidopsis2 thaliana
100	d1b9ha		Alignment	not modelled	21.4	27	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
101	d1p3da1		Alignment	not modelled	21.3	7	Fold: MurCD N-terminal domain Superfamily: MurCD N-terminal domain Family: MurCD N-terminal domain
102	c3iayA		Alignment	not modelled	21.1	20	PDB header: transferase/dna Chain: A: PDB Molecule: dna polymerase delta catalytic subunit; PDBTitle: ternary complex of dna polymerase delta
103	d2a6ta2		Alignment	not modelled	21.1	19	Fold: Nudix Superfamily: Nudix Family: mRNA decapping enzyme-like
104	c2pq1B		Alignment	not modelled	20.9	18	PDB header: hydrolase Chain: B: PDB Molecule: ap4a hydrolase; PDBTitle: crystal structure of ap4a hydrolase complexed with amp and2 atp (aq_158) from aquifex aeolicus vf5
105	c3ezyB		Alignment	not modelled	20.7	17	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: dehydrogenase; PDBTitle: crystal structure of probable dehydrogenase tm_0414

					from2 <i>thermotoga maritima</i>
106	<u>c2k9iB_</u>	 Alignment	not modelled	20.6	PDB header: dna binding protein Chain: B; PDB Molecule: plasmid prn1, complete sequence; PDBTitle: nmr structure of plasmid copy control protein orf56 from2 <i>sulfolobus islandicus</i>
107	<u>c2ogeC_</u>	 Alignment	not modelled	20.3	PDB header: transferase Chain: C; PDB Molecule: transaminase; PDBTitle: x-ray structure of s. venezuelae desv in its internal2 aldimine form