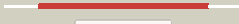



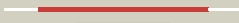

























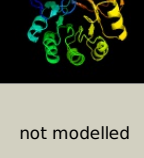


Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD0553_(menC)_644493_645473
Date	Fri Jul 26 01:50:10 BST 2019
Unique Job ID	ed49659e2ae95f5e

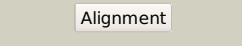
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2qvhB_	 Alignment		100.0	52	PDB header: lyase Chain: B; PDB Molecule: o-succinylbenzoate-coa synthase; PDBTitle: crystal structure of o-succinylbenzoate synthase complexed with o-2 succinyl benzoate (osb)
2	c2pgeA_	 Alignment		100.0	25	PDB header: lyase Chain: A; PDB Molecule: menc; PDBTitle: crystal structure of menc from desulfotalea psychrophila lsv54
3	c3i6tB_	 Alignment		100.0	26	PDB header: isomerase Chain: B; PDB Molecule: muconate cycloisomerase; PDBTitle: crystal structure of muconate cycloisomerase from jannaschia sp.
4	c2chrA_	 Alignment		100.0	24	PDB header: isomerase Chain: A; PDB Molecule: chloromuconate cycloisomerase; PDBTitle: a re-evaluation of the crystal structure of chloromuconate2 cycloisomerase
5	c1nu5A_	 Alignment		100.0	26	PDB header: isomerase Chain: A; PDB Molecule: chloromuconate cycloisomerase; PDBTitle: crystal structure of pseudomonas sp. p51 chloromuconate lactonizing2 enzyme
6	c2ps2A_	 Alignment		100.0	26	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: putative mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of putative mandelate racemase/muconate lactonizing2 enzyme from aspergillus oryzae
7	c3i4kA_	 Alignment		100.0	25	PDB header: isomerase Chain: A; PDB Molecule: muconate lactonizing enzyme; PDBTitle: crystal structure of muconate lactonizing enzyme from corynebacterium2 glutamicum
8	c3fv9D_	 Alignment		100.0	30	PDB header: hydrolase Chain: D; PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of putative mandelate racemase/muconatelactonizing2 enzyme from roseovarius nubinhbens ism complexed with magnesium
9	c2qddA_	 Alignment		100.0	30	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of a member of enolase superfamily from roseovarius2 nubinhbens ism
10	c4m9gB_	 Alignment		100.0	24	PDB header: isomerase Chain: B; PDB Molecule: muconate lactonizing enzyme; PDBTitle: crystal structure of an enolase (mandelate racemase subgroup) from2 labrenzia aggregata iam 12614 (target nysgrc-012903) with bound mg,3 space group p212121
11	c4m0xB_	 Alignment		100.0	28	PDB header: isomerase Chain: B; PDB Molecule: chloromuconate cycloisomerase; PDBTitle: crystal structure of 2-chloromuconate cycloisomerase from rhodococcus2 opacus 1cp

12	c2pgwC_	Alignment		100.0	26	PDB header: isomerase Chain: C; PDB Molecule: muonate cycloisomerase; PDBTitle: crystal structure of a putative muonate cycloisomerase from2 sinorhizobium meliloti 1021
13	c1jpmB_	Alignment		100.0	26	PDB header: isomerase Chain: B; PDB Molecule: l-ala-d/l-glu epimerase; PDBTitle: l-ala-d/l-glu epimerase
14	c3dg7B_	Alignment		100.0	23	PDB header: isomerase Chain: B; PDB Molecule: muonate cycloisomerase; PDBTitle: crystal structure of muonate lactonizing enzyme from mucobacterium2 smegmatis complexed with muconolactone
15	c3vdgA_	Alignment		100.0	24	PDB header: lyase Chain: A; PDB Molecule: probable glucarate dehydratase; PDBTitle: crystal structure of enolase msme_g_6132 (target efi-502282) from2 mycobacterium smegmatis str. mc2 155 complexed with formate and3 acetate
16	c3eezA_	Alignment		100.0	29	PDB header: isomerase Chain: A; PDB Molecule: putative mandelate racemase/muonate lactonizing enzyme; PDBTitle: crystal structure of a putative mandelate racemase/muonate2 lactonizing enzyme from silicibacter pomeroyi
17	c3gc2A_	Alignment		100.0	25	PDB header: lyase Chain: A; PDB Molecule: o-succinylbenzoate synthase; PDBTitle: 1.85 angstrom crystal structure of o-succinylbenzoate synthase from2 salmonella typhimurium in complex with succinic acid
18	c3i6eA_	Alignment		100.0	26	PDB header: isomerase Chain: A; PDB Molecule: muonate cycloisomerase i; PDBTitle: crystal structure of muonate lactonizing enzyme from ruegeria2 pomeroyi.
19	c3ik4A_	Alignment		100.0	23	PDB header: isomerase Chain: A; PDB Molecule: mandelate racemase/muonate lactonizing protein; PDBTitle: crystal structure of mandelate racemase/muonate lactonizing protein2 from herpetosiphon aurantiacus
20	c3q45E_	Alignment		100.0	27	PDB header: isomerase Chain: E; PDB Molecule: mandelate racemase/muonate lactonizing enzyme family; PDBTitle: crystal structure of dipeptide epimerase from cytophaga hutchinsonii2 complexed with mg and dipeptide d-ala-l-val
21	c2qdeA_	Alignment	not modelled	100.0	23	PDB header: lyase Chain: A; PDB Molecule: mandelate racemase/muonate lactonizing enzyme family PDBTitle: crystal structure of mandelate racemase/muonate lactonizing family2 protein from azoarcus sp. ebn1
22	c2oktA_	Alignment	not modelled	100.0	22	PDB header: lyase Chain: A; PDB Molecule: o-succinylbenzoic acid synthetase; PDBTitle: crystal structure of o-succinylbenzoic acid synthetase from2 staphylococcus aureus, ligand-free form
23	c3px5A_	Alignment	not modelled	100.0	21	PDB header: metal binding protein Chain: A; PDB Molecule: enzyme of enolase superfamily; PDBTitle: structure of efi enolase target en500555, a putative dipeptide2 epimerase: apo structure
24	c3sjnB_	Alignment	not modelled	100.0	22	PDB header: lyase Chain: B; PDB Molecule: mandelate racemase/muonate lactonizing protein; PDBTitle: crystal structure of enolase spea_3858 (target efi-500646) from2 shewanella pealeana with magnesium bound
25	c2rdxG_	Alignment	not modelled	100.0	26	PDB header: structural genomics, unknown function Chain: G; PDB Molecule: mandelate racemase/muonate lactonizing enzyme, putative; PDBTitle: crystal structure of mandelate racemase/muonate lactonizing enzyme2 from roseovarius nubinhbens ism
26	c2oztA_	Alignment	not modelled	100.0	28	PDB header: lyase Chain: A; PDB Molecule: tlr1174 protein; PDBTitle: crystal structure of o-succinylbenzoate synthase from2 thermosynechococcus elongatus bp-1
27	c2qgyA_	Alignment	not modelled	100.0	19	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: enolase from the environmental genome shotgun sequencing of PDBTitle: crystal structure of an enolase from the environmental genome shotgun2 sequencing of the sargasso sea

28	c2pmqA	Alignment	not modelled	100.0	25	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of a mandelate racemase/muconate lactonizing enzyme2 from roseovarius sp. htcc2601
29	c1f9cA	Alignment	not modelled	100.0	29	PDB header: isomerase Chain: A: PDB Molecule: protein (muconate cycloisomerase i); PDBTitle: crystal structure of mle d178n variant
30	c2nqlB	Alignment	not modelled	100.0	21	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: isomerase/lactonizing enzyme; PDBTitle: crystal structure of a member of the enolase superfamily from2 agrobacterium tumefaciens
31	c3my9A	Alignment	not modelled	100.0	26	PDB header: isomerase Chain: A: PDB Molecule: muconate cycloisomerase; PDBTitle: crystal structure of a muconate cycloisomerase from azorhizobium2 caulinodans
32	c3vc5A	Alignment	not modelled	100.0	24	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing protein; PDBTitle: crystal structure of enolase tbs_1083(target efi-502310) from2 thermobispora bispora dsm 43833 complexed with phosphate
33	c3ritE	Alignment	not modelled	100.0	25	PDB header: isomerase Chain: E: PDB Molecule: dipeptide epimerase; PDBTitle: crystal structure of dipeptide epimerase from methylococcus capsulatus2 complexed with mg and dipeptide l-arg-d-lys
34	c2p88E	Alignment	not modelled	100.0	24	PDB header: lyase Chain: E: PDB Molecule: mandelate racemase/muconate lactonizing enzyme PDBTitle: crystal structure of n-succinyl arg/lys racemase from2 bacillus cereus atcc 14579
35	c1sjaA	Alignment	not modelled	100.0	28	PDB header: lyase, isomerase Chain: A: PDB Molecule: n-acylamino acid racemase; PDBTitle: x-ray structure of o-succinylbenzoate synthase complexed2 with n-acetylmethionine
36	c1wueA	Alignment	not modelled	100.0	24	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme family PDBTitle: crystal structure of protein gi:29375081, unknown member of enolase2 superfamily from enterococcus faecalis v583
37	c4e4uA	Alignment	not modelled	100.0	23	PDB header: isomerase Chain: A: PDB Molecule: mandalate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of a putative mandelate racemase/muconate2 lactonizing enzyme (target psi-200780) from burkholderia sar-1
38	c4it1A	Alignment	not modelled	100.0	23	PDB header: isomerase Chain: A: PDB Molecule: putative glucarate dehydratase; PDBTitle: crystal structure of enolase pf101_3283 (target efi-502286) from2 pseudomonas fluorescens pf0-1 with bound magnesium, potassium and3 tartrate
39	c3qldB	Alignment	not modelled	100.0	29	PDB header: isomerase Chain: B: PDB Molecule: mandelate racemase/muconate lactonizing protein; PDBTitle: structure of probable mandelate racemase (aalaa1draft_2112) from2 alicyclobacillus acidocaldarius
40	c3h12B	Alignment	not modelled	100.0	22	PDB header: isomerase Chain: B: PDB Molecule: mandelate racemase; PDBTitle: crystal structure of putative mandelate racemase from bordetella2 bronchiseptica rb50
41	c3jw7E	Alignment	not modelled	100.0	27	PDB header: isomerase Chain: E: PDB Molecule: dipeptide epimerase; PDBTitle: crystal structure of dipeptide epimerase from enterococcus faecalis2 v583 complexed with mg and dipeptide l-ile-l-tyr
42	c2gdaqB	Alignment	not modelled	100.0	23	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: yltf; PDBTitle: crystal structure of mandelate racemase/muconate lactonizing enzyme2 from bacillus subtilis at 1.8 a resolution
43	c3es8D	Alignment	not modelled	100.0	21	PDB header: isomerase, lyase Chain: D: PDB Molecule: muconate cycloisomerase; PDBTitle: crystal structure of divergent enolase from oceanobacillus iheyensis2 complexed with mg and l-malate.
44	c2zc8B	Alignment	not modelled	100.0	25	PDB header: metal binding protein Chain: B: PDB Molecule: n-acylamino acid racemase; PDBTitle: crystal structure of n-acylamino acid racemase from thermus2 thermophilus hb8
45	c2oqhD	Alignment	not modelled	100.0	30	PDB header: isomerase Chain: D: PDB Molecule: putative isomerase; PDBTitle: crystal structure of an isomerase from streptomyces coelicolor a3(2)
46	c3uxkA	Alignment	not modelled	100.0	20	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase; PDBTitle: p. putida mandelate racemase co-crystallized with the intermediate2 analogue benzohydroxamate
47	c2pp1C	Alignment	not modelled	100.0	22	PDB header: lyase Chain: C: PDB Molecule: l-tartrate/galactarate dehydratase; PDBTitle: crystal structure of l-tartrate/galactarate dehydratase from2 salmonella typhimurium lt2 liganded with mg and l-lyxarohydroxamate
48	c1mraA	Alignment	not modelled	100.0	20	PDB header: racemase Chain: A: PDB Molecule: mandelate racemase; PDBTitle: mandelate racemase mutant d270n co-crystallized with (s)-atrolactate
49	c1wufB	Alignment	not modelled	100.0	24	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: hypothetical protein lin2664; PDBTitle: crystal structure of protein gi:16801725, member of enolase2 superfamily from listeria innocua clip11262
50	c2hzgB	Alignment	not modelled	100.0	22	PDB header: isomerase Chain: B: PDB Molecule: mandelate racemase/muconate lactonizing enzyme/enolase PDBTitle: crystal structure of predicted mandelate racemase from

						rhodobacter2 sphaeroides
51	c3fcpF	Alignment	not modelled	100.0	26	PDB header: isomerase Chain: F: PDB Molecule: l-ala-d/l-glu epimerase, a muconate lactonizing enzyme; PDBTitle: crystal structure of muconate lactonizing enzyme from klebsiella2 pneumoniae
52	c4e5tA	Alignment	not modelled	100.0	21	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase / muconate lactonizing enzyme, c- PDBTitle: crystal structure of a putative mandelate racemase/muconate2 lactonizing enzyme (target psi-200750) from labrenzia alexandrii dfl-3 11
53	c4jhmC	Alignment	not modelled	100.0	15	PDB header: isomerase Chain: C: PDB Molecule: mandelate racemase / muconate lactonizing enzyme, c- PDBTitle: crystal structure of a putative mandelate racemase/muconate2 lactonizing enzyme from pseudovibrio sp.
54	c3bsmD	Alignment	not modelled	100.0	21	PDB header: lyase Chain: D: PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of d-mannonate dehydratase from chromohalobacter2 salexigens
55	c2hxtA	Alignment	not modelled	100.0	25	PDB header: unknown function Chain: A: PDB Molecule: l-fuconate dehydratase; PDBTitle: crystal structure of l-fuconate dehydratase from xanthomonas2 campestris liganded with mg++ and d-erythronhydroxamate
56	c4e8gA	Alignment	not modelled	100.0	23	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme, n-terminal PDBTitle: crystal structure of an enolase (mandelate racemase subgroup) from2 paracoccus denitrificans pd1222 (target nysgrc-012907) with bound mg
57	c1rvkA	Alignment	not modelled	100.0	18	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: isomerase/lactonizing enzyme; PDBTitle: crystal structure of enolase agr_1_2751 from agrobacterium tumefaciens
58	c2fkpC	Alignment	not modelled	100.0	25	PDB header: isomerase Chain: C: PDB Molecule: n-acylamino acid racemase; PDBTitle: the mutant g127c-t313c of deinococcus radiodurans n-2 acylamino acid racemase
59	c3gy1B	Alignment	not modelled	100.0	15	PDB header: isomerase Chain: B: PDB Molecule: mandelate racemase/muconate lactonizing protein; PDBTitle: crystal structure of putative mandelate racemase/muconate lactonizing2 protein from clostridium beijerinckii ncimb 8052
60	c2qjjC	Alignment	not modelled	100.0	18	PDB header: lyase Chain: C: PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of d-mannonate dehydratase from novosphingobium2 aromaticivorans
61	c2gl5A	Alignment	not modelled	100.0	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative dehydratase protein; PDBTitle: crystal structure of putative dehydratase from salmonella thyphimurium
62	c3rcyC	Alignment	not modelled	100.0	23	PDB header: isomerase Chain: C: PDB Molecule: mandelate racemase/muconate lactonizing enzyme-like PDBTitle: crystal structure of mandelate racemase/muconate lactonizing enzyme-2 like protein from roseovarius sp. tm1035
63	c3rr1B	Alignment	not modelled	100.0	23	PDB header: lyase Chain: B: PDB Molecule: putative d-galactonate dehydratase; PDBTitle: crystal structure of enolase prk14017 (target efi-500653) from2 ralstonia pickettii 12j
64	c3tjaA	Alignment	not modelled	100.0	18	PDB header: lyase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme, n-terminal PDBTitle: crystal structure of an enolase from enterobacter sp. 638 (efi target2 efi-501662) with bound mg
65	c4gfiA	Alignment	not modelled	100.0	24	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme family PDBTitle: crystal structure of efi-502318, an enolase family member from2 agrobacterium tumefaciens with homology to dipeptide epimerases3 (bound sodium, l-ala-l-glu with ordered loop)
66	c3bjsB	Alignment	not modelled	100.0	21	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of a member of enolase superfamily from polaromonas2 sp. js666
67	c1jpdX	Alignment	not modelled	100.0	25	PDB header: isomerase Chain: X: PDB Molecule: l-ala-d/l-glu epimerase; PDBTitle: l-ala-d/l-glu epimerase
68	c5olcG	Alignment	not modelled	100.0	19	PDB header: isomerase Chain: G: PDB Molecule: galactonate dehydratase; PDBTitle: crystal structure of the 3,6-anhydro-d-galactonate cycloisomerase from2 zobellia galactanivorans
69	c3dfyl	Alignment	not modelled	100.0	25	PDB header: isomerase Chain: J: PDB Molecule: muconate cycloisomerase; PDBTitle: crystal structure of apo dipeptide epimerase from2 thermotoga maritima
70	c3mwcA	Alignment	not modelled	100.0	22	PDB header: ligase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing protein; PDBTitle: crystal structure of probable o-succinylbenzoic acid synthetase from2 kosmotoga olearia
71	c3thuC	Alignment	not modelled	100.0	18	PDB header: lyase Chain: C: PDB Molecule: mandelate racemase / muconate lactonizing enzyme family PDBTitle: crystal structure of an enolase from sphingomonas sp. ska58 (efi2 target efi-501683) with bound mg

72	c3toyC_		Alignment	not modelled	100.0	24	PDB header: lyase Chain: C: PDB Molecule: mandelate racemase/muconate lactonizing enzyme family PDBTitle: crystal structure of enolase brado_4202 (target efi-501651) from2 bradyrhizobium sp. ors278 with calcium and acetate bound
73	c4hnlA_		Alignment	not modelled	100.0	19	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of enolase egbg_01401 (target efi-502226) from2 enterococcus gallinarum eg2
74	c3u9iA_		Alignment	not modelled	100.0	25	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme, c-terminal PDBTitle: the crystal structure of mandelate racemase/muconate lactonizing2 enzyme from roseiflexus sp.
75	c4e4fD_		Alignment	not modelled	100.0	18	PDB header: isomerase Chain: D: PDB Molecule: mannonate dehydratase; PDBTitle: crystal structure of enolase pc1_0802 (target efi-502240) from2 pectobacterium carotovorum subsp. carotovorum pc1
76	c4j3zE_		Alignment	not modelled	100.0	24	PDB header: isomerase Chain: E: PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of mandelate racemase/muconate lactonizing enzyme2 from jannaschia sp. ccs1
77	c2ovlA_		Alignment	not modelled	100.0	27	PDB header: isomerase Chain: A: PDB Molecule: putative racemase; PDBTitle: crystal structure of a racemase from streptomyces2 coelicolor a3(2)
78	c3ugvE_		Alignment	not modelled	100.0	23	PDB header: lyase Chain: E: PDB Molecule: enolase; PDBTitle: crystal structure of an enolase from alpha pretobacterium bal199 (efi2 target efi-501650) with bound mg
79	c2ox4E_		Alignment	not modelled	100.0	23	PDB header: isomerase Chain: E: PDB Molecule: putative mandelate racemase; PDBTitle: crystal structure of putative dehydratase from zymomonas mobilis zm4
80	c3v3wA_		Alignment	not modelled	100.0	18	PDB header: lyase Chain: A: PDB Molecule: starvation sensing protein rspa; PDBTitle: crystal structure of an enolase from the soil bacterium cellvibrio2 japonicus (target efi-502161) with bound mg and glycerol
81	c3ddmD_		Alignment	not modelled	100.0	29	PDB header: lyase Chain: D: PDB Molecule: putative mandelate racemase/muconate lactonizing PDBTitle: crystal structure of mandelate racemase/muconate2 lactonizing enzyme from bordetella bronchiseptica rb50
82	c4gisB_		Alignment	not modelled	100.0	18	PDB header: lyase Chain: B: PDB Molecule: enolase; PDBTitle: crystal structure of an enolase family member from vibrio harveyi2 (efi-target 501692) with homology to mannonate dehydratase, with mg,3 glycerol and dicarboxylates bound (mixed loops, space group i4122)
83	c3mznA_		Alignment	not modelled	100.0	19	PDB header: lyase Chain: A: PDB Molecule: glucarate dehydratase; PDBTitle: crystal structure of probable glucarate dehydratase from2 chromohalobacter salexigens dsm 3043
84	c1ec8B_		Alignment	not modelled	100.0	17	PDB header: lyase Chain: B: PDB Molecule: glucarate dehydratase; PDBTitle: e. coli glucarate dehydratase bound to product 2,3-dihydroxy-5-oxo-2 hexanedioate
85	c2o56D_		Alignment	not modelled	100.0	18	PDB header: structural genomics, unknown function Chain: D: PDB Molecule: putative mandelate racemase; PDBTitle: crystal structure of a member of the enolase superfamily from2 salmonella typhimurium
86	c2oo6A_		Alignment	not modelled	100.0	23	PDB header: isomerase Chain: A: PDB Molecule: putative l-alanine-dl-glutamate epimerase; PDBTitle: crystal structure of putative l-alanine-dl-glutamate epimerase from2 burkholderia xenovorans strain lb400
87	c3dfhC_		Alignment	not modelled	100.0	17	PDB header: isomerase Chain: C: PDB Molecule: mandelate racemase; PDBTitle: crystal structure of putative mandelate racemase / muconate2 lactonizing enzyme from vibriales bacterium swat-3
88	c2ppgB_		Alignment	not modelled	100.0	25	PDB header: isomerase Chain: B: PDB Molecule: putative isomerase; PDBTitle: crystal structure of putative isomerase from sinorhizobium meliloti
89	c2oz8B_		Alignment	not modelled	100.0	22	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: mll7089 protein; PDBTitle: crystal structure of putative mandelate racemase from mesorhizobium2 loti
90	c3n4eA_		Alignment	not modelled	100.0	23	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme, c-terminal PDBTitle: crystal structure of mandelate racemase/muconate lactonizing protein2 from paracoccus denitrificans pd1222
91	c4jn8A_		Alignment	not modelled	100.0	23	PDB header: lyase Chain: A: PDB Molecule: enolase; PDBTitle: crystal structure of an enolase (putative galactarate dehydratase,2 target efi-500740) from agrobacterium radiobacter, bound sulfate, no3 metal ion, ordered active site
92	c3cb3B_		Alignment	not modelled	100.0	24	PDB header: isomerase Chain: B: PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of l-talarate dehydratase from polaromonas sp. js6662 complexed with mg and l-glucarate
93	c3t6cB_		Alignment	not modelled	100.0	17	PDB header: lyase Chain: B: PDB Molecule: putative mand family dehydratase; PDBTitle: crystal structure of an enolase from pantoea ananatis (efi target efi-2 501676) with bound d-gluconate and mg
94	c3tj4B_		Alignment	not modelled	100.0	25	PDB header: lyase Chain: B: PDB Molecule: mandelate racemase; PDBTitle: crystal structure of an enolase from agrobacterium tumefaciens (efi2 target efi-502087) no mg

95	c3ijjA		Alignment	not modelled	100.0	20	PDB header: isomerase Chain: A: PDB Molecule: muconate cycloisomerase; PDBTitle: structure of dipeptide epimerase from bacteroides thetaiotaomicron2 complexed with l-pro-d-glu; nonproductive substrate binding.
96	c3t9pB		Alignment	not modelled	100.0	19	PDB header: isomerase Chain: B: PDB Molecule: mandelate racemase/muconate lactonizing enzyme family PDBTitle: crystal structure of a putative mandelate racemase/muconate2 lactonizing enzyme family protein from roseovarius
97	c3msyC		Alignment	not modelled	100.0	19	PDB header: isomerase Chain: C: PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of mandelate racemase/muconate lactonizing enzyme2 from a marine actinobacterium
98	c3mqtV		Alignment	not modelled	100.0	15	PDB header: isomerase Chain: V: PDB Molecule: PDBTitle: crystal structure of a mandelate racemase/muconate lactonizing enzyme2 from shewanella pealeana
99	c4il0G		Alignment	not modelled	100.0	19	PDB header: lyase Chain: G: PDB Molecule: glucarate dehydratase-related protein; PDBTitle: crystal structure of glucdrp from e. coli k-12 mg1655 (efi target efi-2 506058)
100	c3sqsA		Alignment	not modelled	100.0	18	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing protein; PDBTitle: crystal structure of a putative mandelate racemase/muconate2 lactonizing protein from dinoroseobacter shibae dfl 12
101	c5xd9A		Alignment	not modelled	100.0	17	PDB header: isomerase Chain: A: PDB Molecule: 3,6-anhydro-alpha-l-galactonate cycloisomerase; PDBTitle: crystal structure analysis of 3,6-anhydro-l-galactonate cycloisomerase
102	c2pozA		Alignment	not modelled	100.0	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative dehydratase; PDBTitle: crystal structure of a putative dehydratase from mesorhizobium loti
103	c3t8qA		Alignment	not modelled	100.0	19	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme family PDBTitle: crystal structure of mandelate racemase/muconate lactonizing enzyme2 family protein from hoeflea phototrophica
104	c4gggA		Alignment	not modelled	100.0	25	PDB header: isomerase Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of a proposed galactarolactone cycloisomerase from2 agrobacterium tumefaciens, target efi-500704, with bound ca,3 disordered loops
105	c3u4fC		Alignment	not modelled	100.0	18	PDB header: isomerase Chain: C: PDB Molecule: mandelate racemase/muconate lactonizing enzyme family PDBTitle: crystal structure of a mandelate racemase (muconate lactonizing enzyme2 family protein) from roseovarius nubinhbens
106	c3cyjA		Alignment	not modelled	100.0	24	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing enzyme-like PDBTitle: crystal structure of a mandelate racemase/muconate lactonizing enzyme-2 like protein from rubrobacter xylanophilus
107	c2dw7G		Alignment	not modelled	100.0	20	PDB header: lyase Chain: G: PDB Molecule: bl6730 protein; PDBTitle: crystal structure of d-tartrate dehydratase from2 bradyrhizobium japonicum complexed with mg++ and meso-3 tartrate
108	c3mkcA		Alignment	not modelled	100.0	19	PDB header: isomerase Chain: A: PDB Molecule: racemase; PDBTitle: crystal structure of a putative racemase
109	c4ip4B		Alignment	not modelled	100.0	24	PDB header: isomerase Chain: B: PDB Molecule: mandelate racemase/muconate lactonizing enzyme-like PDBTitle: crystal structure of l-fuconate dehydratase from silicibacter sp.2 tm1040 liganded with mg
110	c4kemB		Alignment	not modelled	100.0	23	PDB header: lyase Chain: B: PDB Molecule: mandelate racemase/muconate lactonizing enzyme; PDBTitle: crystal structure of a tartrate dehydratase from azospirillum, target2 efi-502395, with bound mg and a putative acrylate ion, ordered active3 site
111	c3n6jA		Alignment	not modelled	100.0	18	PDB header: isomerase Chain: A: PDB Molecule: mandelate racemase/muconate lactonizing protein; PDBTitle: crystal structure of mandelate racemase/muconate lactonizing protein2 from actinobacillus succinogenes 130z
112	c2qq6B		Alignment	not modelled	100.0	24	PDB header: isomerase Chain: B: PDB Molecule: mandelate racemase/muconate lactonizing enzyme- PDBTitle: crystal structure of mandelate racemase/muconate2 lactonizing enzyme-like protein from rubrobacter3 xylanophilus dsm 9941
113	c2podA		Alignment	not modelled	100.0	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: mandelate racemase / muconate lactonizing enzyme; PDBTitle: crystal structure of a member of enolase superfamily from burkholderia2 pseudomallei k96243
114	d1muca1		Alignment	not modelled	100.0	26	Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: D-glucarate dehydratase-like
115	c3dipA		Alignment	not modelled	100.0	26	PDB header: lyase Chain: A: PDB Molecule: enolase; PDBTitle: crystal structure of an enolase protein from the environmental genome2 shotgun sequencing of the sargasso sea PDB header: lyase

116	c4hyrB_	Alignment	not modelled	100.0	17	Chain: B: PDB Molecule: glucarate dehydratase; PDBTitle: structure of putative glucarate dehydratase from acidaminococcus sp.2 d21 with unusual static disorder
117	c3va8A_	Alignment	not modelled	100.0	24	PDB header: lyase Chain: A: PDB Molecule: probable dehydratase; PDBTitle: crystal structure of enolase fg03645.1 (target efi-502278) from2 gibberella zeae ph-1 complexed with magnesium, formate and sulfate
118	d2chra1	Alignment	not modelled	100.0	24	Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: D-glucarate dehydratase-like
119	c3nxD_	Alignment	not modelled	100.0	27	PDB header: lyase Chain: D: PDB Molecule: glucarate dehydratase; PDBTitle: crystal structure of glucarate dehydratase from burkholderia cepacia2 complexed with magnesium
120	c3cawB_	Alignment	not modelled	100.0	19	PDB header: oxidoreductase Chain: B: PDB Molecule: o-succinylbenzoate synthase; PDBTitle: crystal structure of o-succinylbenzoate synthase from bdellovibrio2 bacteriovorus liganded with mg