

Name	Strain	Cluster	Accession	Current Annotation
gi 183207914 gb CP000863.1 _2170873:2172430_strand=-1	Acinetobacter baumannii ACICU	Pyr_redox_3 cluster 0	YP_001846283	flavoprotein
gi 183207914 gb CP000863.1 _437420:438941_strand=-1	Acinetobacter baumannii ACICU	Pyr_redox_3 cluster 0	YP_001847910	flavoprotein
gi 183207914 gb CP000863.1 _1244085:1245660_strand=1	Acinetobacter baumannii ACICU	Pyr_redox_3 cluster 0	YP_001845804	flavoprotein
gi 183207914 gb CP000863.1 _1943930:1945523_strand=1	Acinetobacter baumannii ACICU	Pyr_redox_3 cluster 0	YP_001846480	flavoprotein
gi 169147133 emb CU459141.1 _2042535:2044101_strand=-1	Acinetobacter baumannii AYE	Pyr_redox_3 cluster 0	YP_001713706	monooxygenase
gi 169147133 emb CU459141.1 _1295416:1296991_strand=-1	Acinetobacter baumannii AYE	Pyr_redox_3 cluster 0	YP_001714418	flavin-binding monooxygenase
gi 169147133 emb CU459141.1 _2647030:2648578_strand=1	Acinetobacter baumannii AYE	Pyr_redox_3 cluster 0	YP_001714425	flavin-binding monooxygenase
gi 169147133 emb CU459141.1 _2650648:2652214_strand=1	Acinetobacter baumannii AYE	Pyr_redox_3 cluster 0	YP_001714428	flavin-binding monooxygenase
gi 169147133 emb CU459141.1 _447137:448658_strand=1	Acinetobacter baumannii AYE	Pyr_redox_3 cluster 0	YP_001712414	flavin-binding family monooxygenase
gi 169147133 emb CU459141.1 _2115266:2116823_strand=1	Acinetobacter baumannii AYE	Pyr_redox_3 cluster 0	YP_001712920	flavin-binding monooxygenase
gi 543175329 gb CP001103.3 _1499604:1501098_strand=-1	Alteromonas macleodii Deep ecotype	Pyr_redox_3 cluster 0	WP_012519010	putative aromatic-ring hydroxylase
gi 407243520 gb CP003844.1 _1518808:1520281_strand=-1	Alteromonas macleodii English Channel ecotype	Pyr_redox_3 cluster 0	YP_006799705	aromatic-ring hydroxylase
gi 332171715 gb CP002526.1 _4602902:4604915_strand=1	Glaciecola agarilytica 4H37Ye5	Pyr_redox_3 cluster 0	WP_013754836	amine oxidase
gi 469482259 gb CP003837.1 _245127:247065_strand=-1	Glaciecola psychrophila 170	Pyr_redox_3 cluster 0	YP_007546817	cyclohexanone monooxygenase
gi 469482259 gb CP003837.1 _582307:583807_strand=-1	Glaciecola psychrophila 170	Pyr_redox_3 cluster 0	YP_007546459	flavin-containing monooxygenase FMO
gi 469482259 gb CP003837.1 _1130351:1131860_strand=-1	Glaciecola psychrophila 170	Pyr_redox_3 cluster 0	YP_007545883	putative monooxygenase
gi 469482259 gb CP003837.1 _3037887:3038976_strand=1	Glaciecola psychrophila 170	Pyr_redox_3 cluster 0	YP_007544622	flavin-binding family monooxygenase
gi 469482259 gb CP003837.1 _3037495:3038002_strand=1	Glaciecola psychrophila 170	Pyr_redox_3 cluster 0	YP_007544621	hypothetical protein C427_3164
gi 308753268 gb CP002224.1 _2444015:2444792_strand=1	Ketogulonicigenium vulgare Y25	Pyr_redox_3 cluster 0	YP_003964900	4-hydroxyacetophenone monooxygenase
gi 120322793 gb CP000514.1 _86475:88107_strand=-1	Marinobacter aquaeolei VT8	Pyr_redox_3 cluster 0	YP_961075	cyclohexanone monooxygenase
gi 120322793 gb CP000514.1 _2780149:2781640_strand=-1	Marinobacter aquaeolei VT8	Pyr_redox_3 cluster 0	YP_958641	alpha/beta hydrolase domain-containing protein
gi 120322793 gb CP000514.1 _75611:77171_strand=-1	Marinobacter aquaeolei VT8	Pyr_redox_3 cluster 0	YP_961086	cyclohexanone monooxygenase
gi 92392509 gb CP000323.1 _241282:242980_strand=-1	Psychrobacter cryohalolentis K5	Pyr_redox_3 cluster 0	YP_581551	flavin-containing monooxygenase FMO
gi 91713371 gb CP000302.1 _396026:397187_strand=-1	Shewanella denitrificans OS217	Pyr_redox_3 cluster 0	YP_564464	FAD-dependent pyridine nucleotide-disulphide oxidoreductase
gi 183207914 gb CP000863.1 _3846853:3848035_strand=-1	Acinetobacter baumannii ACICU	Bac_luciferase cluster 0	YP_001844708	alkanesulfonate monooxygenase
gi 183207914 gb CP000863.1 _3716026:3717169_strand=1	Acinetobacter baumannii ACICU	Bac_luciferase cluster 0	YP_001848158	coenzyme F420-dependent N5,N10-methylene tetrahydromethanopterin reductase
gi 169147133 emb CU459141.1 _3738604:3739744_strand=-1	Acinetobacter baumannii AYE	Bac_luciferase cluster 0	YP_001712170	sulfonate monooxygenase (MsdD)
gi 169147133 emb CU459141.1 _3880897:3882079_strand=1	Acinetobacter baumannii AYE	Bac_luciferase cluster 0	YP_001715556	alkanesulfonate monooxygenase
gi 476507773 gb CP0003740.1 _3129437:3130646_strand=-1	Octadecabacter antarcticus 307	Bac_luciferase cluster 0	YP_007703992	alkanesulfonate monooxygenase SsuD
gi 476512267 gb CP003742.1 _3607813:3609130_strand=-1	Octadecabacter arcticus 238	Bac_luciferase cluster 0	YP_007699120	alkanesulfonate monooxygenase SsuD
gi 319923767 gb CP002467.1 _1939931:1941029_strand=1	Terriglobus saanensis SP1PR4	Bac_luciferase cluster 0	YP_004182409	Alkanesulfonate monooxygenase
gi 183207914 gb CP000863.1 _1777679:1778933_strand=1	Acinetobacter baumannii ACICU	FA_desaturase cluster 0	YP_001846325	terminal alkane-1-monooxygenase
gi 169147133 emb CU459141.1 _1865188:1866442_strand=-1	Acinetobacter baumannii AYE	FA_desaturase cluster 0	YP_001713880	terminal alkane-1-monooxygenase [Acinetobacter baumannii AYE
gi 304420054 gb CP002157.1 _1592472:1593546_strand=1	Flavobacteriales bacterium HTCC2170	FA_desaturase cluster 0	WP_013305856	fatty acid desaturase
gi 120322793 gb CP000514.1 _3626818:3628072_strand=-1	Marinobacter aquaeolei VT8	FA_desaturase cluster 0	YP_957898	alkane 1-monooxygenase
gi 120322793 gb CP000514.1 _3824363:3825698_strand=-1	Marinobacter aquaeolei VT8	FA_desaturase cluster 0	YP_957728	alkane 1-monooxygenase
gi 120322793 gb CP000514.1 _3184737:3186135_strand=1	Marinobacter aquaeolei VT8	FA_desaturase cluster 0	YP_960105	alkane 1-monooxygenase
gi 476507773 gb CP003740.1 _172541:173732_strand=-1	Octadecabacter antarcticus 307	FA_desaturase cluster 0	YP_007706693	alkane 1-monooxygenase AlkB
gi 476507773 gb CP003740.1 _3296198:3296882_strand=-1	Octadecabacter antarcticus 307	FA_desaturase cluster 0	NA	probable pseudo-gene
gi 476512267 gb CP003742.1 _2901321:2902362_strand=1	Octadecabacter arcticus 238	FA_desaturase cluster 0	YP_007700218	putative alkane1-monooxygenase
gi 476512267 gb CP003742.1 _4401416:4402325_strand=1	Octadecabacter arcticus 238	FA_desaturase cluster 0	NA	probable pseudo-gene
gi 145554299 gb CP000661.1 _72633:73944_strand=1	Rhodobacter sphaeroides ATCC 17025	FA_desaturase cluster 0	YP_001166282	alkane 1-monooxygenase
gi 183207914 gb CP000863.1 _3209134:3210139_strand=1	Acinetobacter baumannii ACICU	FA_desaturase cluster 1	YP_001847679	Fatty acid desaturase
gi 169147133 emb CU459141.1 _3203532:3204537_strand=-1	Acinetobacter baumannii AYE	FA_desaturase cluster 1	YP_001712678	fatty acid desaturase

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gi|408466736|gb|CP003879.1|_2334341:2335700_strand=1
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gi|319923767|gb|CP002467.1|_840062:841469_strand=1

Glaciecola psychrophila 170
Marinobacter aquaeolei VT8
Octadecabacter antarcticus 307
Octadecabacter antarcticus 307
Octadecabacter arcticus 238
Glaciecola agarilytica 4H37Ye5
Glaciecola agarilytica 4H37Ye5
Glaciecola agarilytica 4H37Ye5
Glaciecola psychrophila 170
Marinobacter aquaeolei VT8
Marinobacter aquaeolei VT8
Octadecabacter antarcticus 307
Octadecabacter arcticus 238
Pseudoalteromonas atlantica T6c
Rhodobacter sphaeroides ATCC 17025
Terroglobus saanensis SP1PR4
Terroglobus saanensis SP1PR4
Ketogulonicigenium vulgare Y25
Octadecabacter antarcticus 307
Octadecabacter arcticus 238
Photobacter profundum SS9
Psychroflexus torquis
Terriglobus roseus DSM18391
Terroglobus saanensis SP1PR4

FA_desaturase cluster 1 YP_007545843
FA_desaturase cluster 1 YP_959481
FA_desaturase cluster 1 YP_007704421
FA_desaturase cluster 1 YP_007703739
FA_desaturase cluster 1 YP_007698645
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hypothetical protein C427_4393
fatty acid desaturase
hypothetical protein OAN307_c21550
putative fatty acid desaturase
putative fatty acid desaturase
cytochrome P450
cytochrome P450
cytochrome P450
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