

Product datasheet for **MG207886**

Mlycd (NM_019966) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mlycd (NM_019966) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mlycd
Synonyms:	A1324784; Mcd
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG207886 representing NM_019966
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGAGGCCCTCGGGCCAGGCTTGAGGGCTCGGCGCTGCTCCCACTGCGGTCCCGCCGCGGCCCTCCGG
 GGCCCCGGGACGTCGGCTGTGCGGCGGGCTCGCGGCCAGCGCCATGACGAGCTGCTGCGGCGAGCCGT
 GCCCCCGACGCCGCCTACGAGCTGCGCGAGAAGACGCCGGCGCCCGCCGAGGGCCAGTGCGCCGACTTC
 GTGAGCTTCTACGGCGGCTGGCCGAGGCGTCCAGCGCGCCGAGCTGCTCGGCCGCTGGCTCAGGGCT
 TCGGCGTGGACCAGGCCAGGTGGCCGAGCAGAGCGCGGGGTGCTGCAGCTGCGCCAGCAGGCGCGCGA
 GGCGGCCGTGCTGCTGACGGCGGAGGACCGTTGCGCTACGCGCTCGTCCCGGATCGCGGCCTCTTC
 CATCACATCAGCAAGCTGGACGGCGCGTGCCTTCTTGGTGCAGCTGCGGGCCGATCTGCTGGAGGCGC
 AGGCCCTCAAGCTGGTGGAGGGCCGACGTCCGGAAATGAACGGAGTGTCAAAGCATGCTGTCTGA
 GTGGTTCTCCTCCGGCTTCTGAACCTGGAGCGGGTACCTGGCACTCACCTGTGAGGACTTCAAGAG
 ATCAGCGAGTGTGAGGCTGTGCACCTGTGAAAACCTGGATGGACATGAAGCGGCGTGTGGGGCCCTACC
 GGAGATGTTACTTCTTCTCCCACTGCTCCACCCCGGGGAACCCCTGGTGGTTCTGCATGTGGCTCTGAC
 TGGTGACATTTCCAACAACATCCAGGGCATTGTGAAGGAGTGCCTCCGACTGAAACCGAGGAGAGGAAC
 AGGATCGCCGCTGCCATCTTCTACTCCATCAGCCTGACCCAGCAGGGCCTGCAGGGGGTGGAGCTCGGGA
 CCTTCTCATAAAGAGAGTGGTCAAGGAGCTGCAGAAGGAATTTCTCAGCTGGGGGCTTTTCAAGCCT
 GTCGCCTATCCCTGGATTACCAAGTGGCTGCTGGGCCTCCTGAATGTGCAGGGGAAGGAGCATGGGAGG
 AACGAATATTCACAGACTCAGAGTGCCAAGAAATCTCAGCGGTTACCGCAACCCTGTTACGAGAGCC
 TCAAGGGGTTCTGAGCAGTGGTGAAGTGGTGAAGTCAAGAGCTGACGCAGGCGCTGCAGGGCCACT
 AATGAGGCTGTGCGCTGGTACCTGTACGGTGAGAAGCACCGAGGCTACGCCCTCAACCCAGTGGCCAAC
 TTCCATCTGCAGAATGGGGCTGTGATGTGGCGTATCAACTGGATGGCTGACAGCAGCCTCAAAGGCCTCA
 CCAGCTCATGCGGCCTCATGGTCAACTACCGCTACTACCTGGAGGAGACAGGCCCAACAGTATCTCCTA
 CCTGGGCTCCAAGAACATCAAAGCTTCCGAGCAGATCCTCAGCCTGGTAGCCAGTTCAGAACACAGC
 AAATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG207886 representing NM_019966
 Red=Cloning site Green=Tags(s)

MRGLGPGLRARRLLPLRSPPRPPGPRRRLCGGLAASAMDELLRRAVPPTPAYELREKTPAPAEGQCADF
 VSFYGGLAEASQRAELLRALAQFGVDHGQVAEQSAGVLQLRQQAREAAVLLQAEDRLRYALVPRYRGLF
 HHI SKLDGGVRFVLQRLADLLEAQALKLVEGPHVREMNGVLKSMLEWFSFGFLNLERVTWHSPCEVLQK
 ISECEAVHPVKNWMDMKRRVGPYRRCYFFSHCSTPGEPLVVLHVALTGDISNNIQGIVKECPPTETEERN
 RIAAAIFYSISLTQQGLQGVELGTFLIKRVVKELQKEFPQLGAFSSLSPIPGFTKWLGLLNVQGEHGR
 NELFTDSECQEISAVTGNPVHESLKGFLSSGEWVKSEKLTQALQGPMRLCAWYLYGEKHRGYALNPVAN
 FHLQNGAVMWRINWMDSSSLKGLTSSCGLMVNYRYLEETGPNSISYLGSKNIKASEQILSLVAQFNNS
 KL

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_019966

ORF Size: 1476 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_019966.3](#)

RefSeq Size: 2116 bp

RefSeq ORF: 1479 bp

Locus ID: 56690

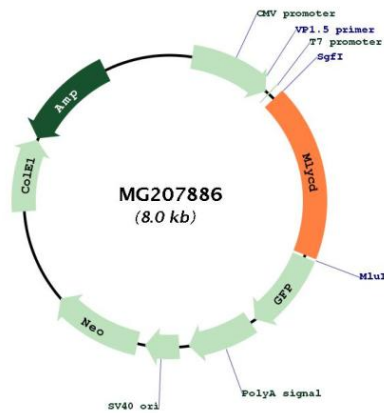
UniProt ID: [Q99J39](#)

Cytogenetics: 8 E1

Gene Summary:

Catalyzes the conversion of malonyl-CoA to acetyl-CoA. In the fatty acid biosynthesis MCD selectively removes malonyl-CoA and thus assures that methyl-malonyl-CoA is the only chain elongating substrate for fatty acid synthase and that fatty acids with multiple methyl side chains are produced. In peroxisomes it may be involved in degrading intraperoxisomal malonyl-CoA, which is generated by the peroxisomal beta-oxidation of odd chain-length dicarboxylic fatty acids. Plays a role in the metabolic balance between glucose and lipid oxidation in muscle independent of alterations in insulin signaling. Plays a role in controlling the extent of ischemic injury by promoting glucose oxidation.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG207886