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Product datasheet for RC208587

MLYCD (NM_012213) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MLYCD (NM_012213) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MLYCD
Synonyms:	MCD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC208587 representing NM_012213
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGAGGCTTCGGGCCAGGCTTGACGGCCAGGCGTCTCCTCCCGCTGCGGTTGCCCCCGCGGCCGCCCG
GGCCCCGGCTGGCGAGCGGGCAGGCGGCCGGCGCCCTGGAGCGGGCCATGGACGAGCTGCTGCGCCGCGC
GGTGCCGCCGACGCCGGCCTACGAGCTGCGCGAGAAGACACCGGCGCCCGCCGAGGGTCAGTGCGCGGAC
TTCGTGAGCTTCTACGGTGGGCTGGCCGAGACGGCCCAGCGGGCCGAACTGCTGGGCCGCCTGGCGCGGG
GCTTCGGCGTGGACCACGGCCAGGTGGCGGAGCAGAGCGCCGGCGTGCTCCATCTGCGCCAGCAGCAGCG
GGAGGCGGCGGTGCTGCTGCAGGCCGAGGACCGGCTGCGCTACGCGCTGGTGCCGCGCTATCGCGGCCTC
TTCCACCACATCAGCAAGCTGGACGGCGGCGTGCGCTTCCTGGTGCAGCTGCGGGCCGACCTGCTGGAGG
CGCAGGCCCTCAAGCTGGTGGAGGGGCCGGACGTCCGGGAAATGAATGGGGTGCTGAAAGGAATGCTCTC
AGAATGGTTTTCCTCCGGGTTCCTGAACCTAGAACGGGTTACCTGGCATTCACCGTGTGAAGTGCTTCAG
AAAATCAGTGAGGCTGAGGCTGTGCATCCTGTAAAAAACTGGATGGACATGAAGCGCCGCGTTGGGCCCT
ACAGAAGGTGTTACTTCTTTTCTCACTGTTCGACCCCTGGGGAGCCCCTGGTCGTTTTGCACGTGGCACT
GACTGGTGACATCTCCAGCAACATCCAGGCAATCGTGAAGGAACATCCTCCATCAGAAACAGAAGAGAAG
AACAAAATCACTGCTGCGATCTTTTATTCCATCAGCTTGACCCAGCAGGGACTCCAAGGGGTGGAGCTGG
GAACATTCCTCATAAAGCGAGTCGTCAAGGAGTTGCAGAGAGAGTTTCCTCACCTTGGGGTGTTTTCAAG
TCTGTCACCTATACCTGGTTTCACCAAATGGCTTCTGGGGCTTCTGAACTCGCAAACGAAGGAGCATGGG
AGGAATGAACTCTTTACAGATTCGGAATGTAAGGAAATCTCGGAGATCACAGGTGGCCCCATTAACGAGA
CCCTCAAGCTCCTCCTCAGCAGCAGCGAGTGGGTGCAGTCGGAGAAGCTGGTGCGGGCGCTGCAGACTCC
GCTGATGAGGCTGTGCGCCTGGTACCTGTATGGAGAGAAGCACCGCGGCTACGCGCTGAACCCCGTGGCC
AACTTCCACCTGCAGAACGGGGCGGTGCTGTGGCGCATCAACTGGATGGCGGATGTGAGCCTCAGAGGCA
TCACCGGCTCCTGCGGCCTGATGGCCAACTACCGCTACTTCCTGGAGGAGACGGGCCCCAACAGCACCTC
CTACCTCGGCTCCAAGATCATCAAAGCCTCTGAGCAGGTCCTCAGCCTAGTGGCCCAGTTTCAAAAGAAC
AGCAAGCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208587 representing NM_012213
Red=Cloning site Green=Tags(s)

MRGFGPGLTARRLLPLRLPPRPPGPRLASGQAAGALERAMDELLRRAVPPTPAYELREKTPAPAEGQCAD
FVSFYGGLAETAQRAELLGRLARGFGVDHGQVAEQSAGVLHLRQQQREAAVLLQAEDRLRYALVPRYRGL
FHHISKLDGGVRFLVQLRADLLEAQALKLVEGPDVREMNGVLKGMLSEWFSSGFLNLERVTWHSPCEVLQ
KISEAEAVHPVKNWMDMKRRVGPYRRCYFFSHCSTPGEPLVVLHVALTGDISSNIQAIVKEHPPSETEEK
NKITAAIFYSISLTQQGLQGVELGTFLIKRVVKELQREFPHLGVFSSLSPIPGFTKWLLGLLNSQTKEHG
RNELFTDSECKEISEITGGPINETLKLLLSSSEWVQSEKLVRALQTPLMRLCAWYLYGEKHRGYALNPVA
NFHLQNGAVLWRINWMADVSLRGITGSCGLMANYRYFLEETGPNSTSYLGSKIIKASEQVLSLVAQFQKN
SKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3505_b05.zip

Restriction Sites: SgfI-MluI

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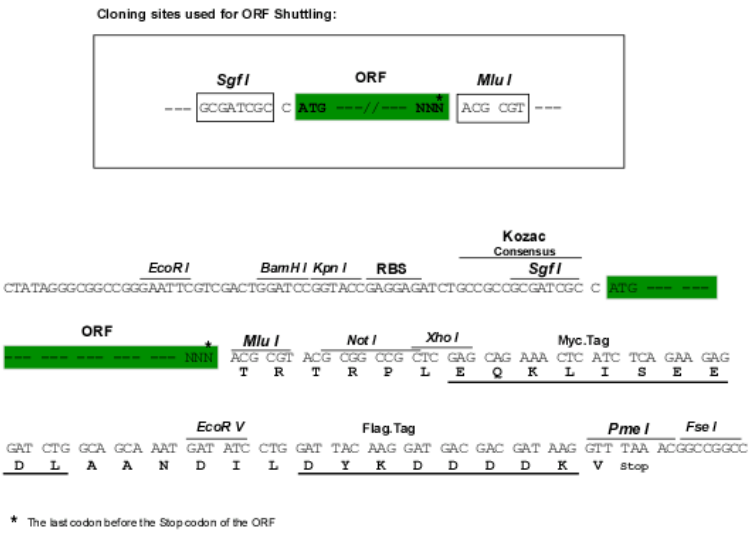
Cloning Scheme:



ACCN: NM_012213

ORF Size: 1479 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_012213.3

RefSeq Size: 2211 bp

RefSeq ORF: 1482 bp

Locus ID: 23417

UniProt ID: O95822

Cytogenetics: 16q23.3

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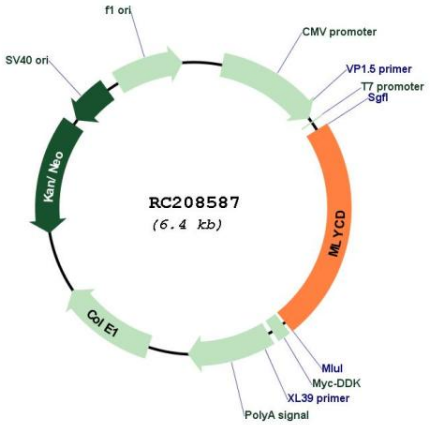
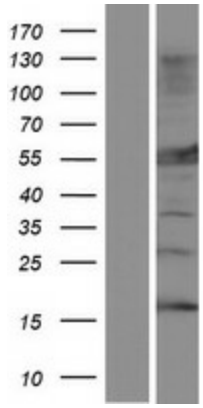
Domains:	MCD
Protein Families:	Druggable Genome
Protein Pathways:	beta-Alanine metabolism, Metabolic pathways, Propanoate metabolism
MW:	54.8 kDa
Gene Summary:	The product of this gene catalyzes the breakdown of malonyl-CoA to acetyl-CoA and carbon dioxide. Malonyl-CoA is an intermediate in fatty acid biosynthesis, and also inhibits the transport of fatty acyl CoAs into mitochondria. Consequently, the encoded protein acts to increase the rate of fatty acid oxidation. It is found in mitochondria, peroxisomes, and the cytoplasm. Mutations in this gene result in malonyl-CoA decarboyxlase deficiency. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC208587



Western blot validation of overexpression lysate (Cat# [LY415904]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208587 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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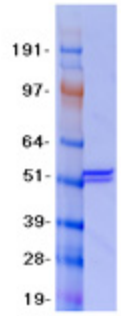

Coomassie blue staining of purified MLYCD protein (Cat# [TP308587]). The protein was produced from HEK293T cells transfected with MLYCD cDNA clone (Cat# RC208587) using MegaTran 2.0 (Cat# [TT210002]).

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