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DCMC Rabbit Polyclonal Antibody

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Catalog # AP93491

Product Information

Application	WB
Primary Accession	O95822
Reactivity	Rat, Human, Mouse
Host	Polyclonal, Rabbit,IgG
Clonality	Polyclonal
Calculated MW	55003

Additional Information

Gene ID	23417
Other Names	Malonyl-CoA decarboxylase, mitochondrial, MCD, 4.1.1.9, MLYCD (HGNC:7150)
Dilution	WB~~1:1000
Storage Conditions	-20℃

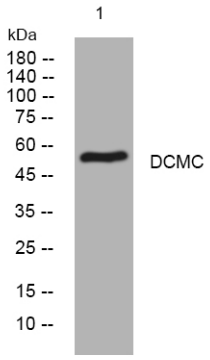
Protein Information

Name	MLYCD (HGNC:7150)
Function	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. May play a role in controlling the extent of ischemic injury by promoting glucose oxidation.
Cellular Location	Cytoplasm. Mitochondrion matrix. Peroxisome. Peroxisome matrix {ECO:0000250|UniProtKB:Q920F5}. Note=Enzymatically active in all three subcellular compartments. {ECO:0000250|UniProtKB:Q920F5}
Tissue Location	Expressed in fibroblasts and hepatoblastoma cells (at protein level). Expressed strongly in heart, liver, skeletal muscle, kidney and pancreas. Expressed in myotubes. Expressed weakly in brain, placenta, spleen, thymus, testis, ovary and small intestine

Background

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],

Images



Western blot analysis of lysates from HEK293 cells, primary antibody was diluted at 1:1000, 4°over night