10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ACADL Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13134a

Product Information

Application	WB, E
Primary Accession	P28330
Other Accession	NP_001599.1
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32459
Calculated MW	47656
Antigen Region	14-43

Additional Information

Gene ID	33
Other Names	Long-chain specific acyl-CoA dehydrogenase, mitochondrial, LCAD, ACADL
Target/Specificity	This ACADL antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 14-43 amino acids from the N-terminal region of human ACADL.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ACADL Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ACADL (HGNC:88)
Function	Long-chain specific acyl-CoA dehydrogenase is one of the acyl-CoA dehydrogenases that catalyze the first step of mitochondrial fatty acid beta-oxidation, an aerobic process breaking down fatty acids into acetyl-CoA and allowing the production of energy from fats (By similarity). The first step

	of fatty acid beta-oxidation consists in the removal of one hydrogen from C-2 and C-3 of the straight-chain fatty acyl-CoA thioester, resulting in the formation of trans-2-enoyl- CoA (By similarity). Among the different mitochondrial acyl-CoA dehydrogenases, long-chain specific acyl-CoA dehydrogenase can act on saturated and unsaturated acyl-CoAs with 6 to 24 carbons with a preference for 8 to 18 carbons long primary chains (PubMed:21237683, PubMed:8823175).
Cellular Location	Mitochondrion matrix {ECO:0000250|UniProtKB:P15650}

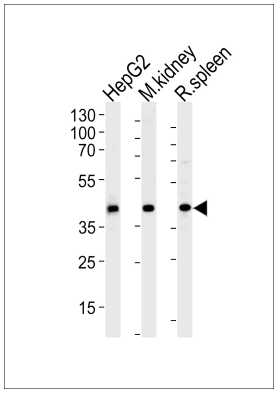
Background

The protein encoded by this gene belongs to the acyl-CoA dehydrogenase family, which is a family of mitochondrial flavoenzymes involved in fatty acid and branched chain amino-acid metabolism. This protein is one of the four enzymes that catalyze the initial step of mitochondrial beta-oxidation of straight-chain fatty acid. Defects in this gene are the cause of long-chain acyl-CoA dehydrogenase (LCAD) deficiency, leading to nonketotic hypoglycemia.

References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Maher, A.C., et al. Mol. Genet. Metab. 100(2):163-167(2010)
Illig, T., et al. Nat. Genet. 42(2):137-141(2010)
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Lu, Y., et al. J. Lipid Res. 49(12):2582-2589(2008)

Images



Western blot analysis of lysates from HepG2 cell line and mouse kidney, rat spleen tissue lysates(from left to right), using ACADL Antibody (N-term)(Cat. #AP13134a). AP13134a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.