

Goat Anti-ACADM Antibody
Peptide-affinity purified goat antibody
Catalog # AF1016a

Specification

Goat Anti-ACADM Antibody - Product Information

Application	WB, IHC, E
Primary Accession	P11310
Other Accession	NP_001120800 , 34
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	46588

Goat Anti-ACADM Antibody - Additional Information

Gene ID 34

Other Names

Medium-chain specific acyl-CoA dehydrogenase, mitochondrial, MCAD, 1.3.8.7, ACADM

Dilution

WB~~1:1000
IHC~~1:100~500
E~~N/A

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-ACADM Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-ACADM Antibody - Protein Information

Name ACADM ([HGNC:89](#))

Function

Medium-chain specific acyl-CoA dehydrogenase is one of the acyl-CoA dehydrogenases that catalyze the first step of mitochondrial fatty acid beta-oxidation (FAO), breaking down fatty acids

into acetyl- CoA and allowing the production of energy from fats (PubMed:1970566, PubMed:21237683, PubMed:2251268, PubMed:8823175). The first step of FAO consists in the proR-proR stereospecific alpha, beta-dehydrogenation of fatty acyl-CoA thioesters using the electron transfer flavoprotein (ETF) as their physiologic electron acceptor, resulting in the formation of trans-2-enoyl-CoA ((2E)-enoyl-CoA) (PubMed:2251268). ETF is the electron acceptor that transfers electrons to the main mitochondrial respiratory chain via ETF-ubiquinone oxidoreductase (ETF dehydrogenase) (PubMed:15159392, PubMed:25416781). Among the different mitochondrial acyl-CoA dehydrogenases, medium-chain specific acyl-CoA dehydrogenase has preference for fatty acyl-CoAs with saturated 6 to 12 carbons long primary chains, making it but can also catalyze longer chains such as C14 and C16 (PubMed:1970566, PubMed:21237683, PubMed:2251268, PubMed:8823175).

Cellular Location

Mitochondrion matrix

Tissue Location

Expressed ubiquitously with highest levels in heart and muscle.

Goat Anti-ACADM Antibody - Protocols

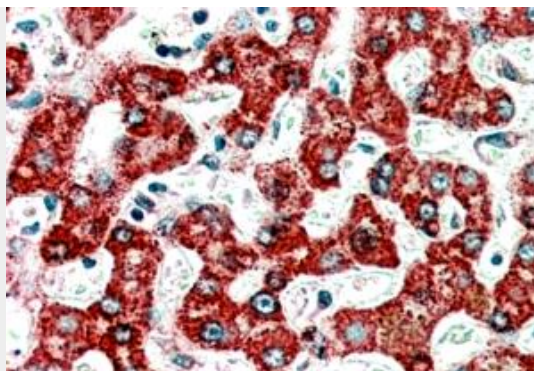
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-ACADM Antibody - Images



AF1016a staining (0.05 µg/ml) of Human Heart lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



AF1016a (3.8 µg/ml) staining of paraffin embedded Human Liver. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-ACADM Antibody - Background

This gene encodes the medium-chain specific (C4 to C12 straight chain) acyl-Coenzyme A dehydrogenase. The homotetramer enzyme catalyzes the initial step of the mitochondrial fatty acid beta-oxidation pathway. Defects in this gene cause medium-chain acyl-CoA dehydrogenase deficiency, a disease characterized by hepatic dysfunction, fasting hypoglycemia, and encephalopathy, which can result in infantile death. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

Goat Anti-ACADM Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. *Diabetes Care*, 2010 Jul 13. PMID 20628086.

Medium-chain acyl-CoA dehydrogenase deficiency in Saudi Arabia: incidence, genotype, and preventive implications. Al-Hassnan ZN, et al. *J Inherit Metab Dis*, 2010 Jun 22. PMID 20567907.

Allelic diversity in MCAD deficiency: the biochemical classification of 54 variants identified during 5 years of ACADM sequencing. Smith EH, et al. *Mol Genet Metab*, 2010 Jul. PMID 20434380.

A genome-wide perspective of genetic variation in human metabolism. Illig T, et al. *Nat Genet*, 2010 Feb. PMID 20037589.

Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. *Am J Hum Genet*, 2009 Nov. PMID 19913121.