

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

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**Goat Anti-ACADM Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P11310</a>
Other Accession	<a href="#">NP_001120800</a> , <a href="#">34</a>
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

**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, an aerobic process breaking down fatty acids into acetyl-CoA and allowing the production of energy from fats (PubMed:<a href="http://www.uniprot.org/citations/1970566" target="\_blank">1970566</a>, PubMed:<a href="http://www.uniprot.org/citations/8823175" target="\_blank">8823175</a>, PubMed:<a href="http://www.uniprot.org/citations/21237683" target="\_blank">21237683</a>, PubMed:<a href="http://www.uniprot.org/citations/2251268" target="\_blank">2251268</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/2251268" target="\_blank">2251268</a>). Electron transfer flavoprotein (ETF) is the electron acceptor that transfers electrons to the main mitochondrial respiratory chain via ETF-ubiquinone oxidoreductase (ETF dehydrogenase) (PubMed:<a href="http://www.uniprot.org/citations/25416781" target="\_blank">25416781</a>, PubMed:<a href="http://www.uniprot.org/citations/15159392" target="\_blank">15159392</a>). Among the different mitochondrial acyl-CoA dehydrogenases, medium-chain specific acyl-CoA dehydrogenase acts specifically on acyl-CoAs with saturated 6 to 12 carbons long primary chains (PubMed:<a href="http://www.uniprot.org/citations/1970566" target="\_blank">1970566</a>, PubMed:<a href="http://www.uniprot.org/citations/8823175" target="\_blank">8823175</a>, PubMed:<a href="http://www.uniprot.org/citations/21237683" target="\_blank">21237683</a>, PubMed:<a href="http://www.uniprot.org/citations/2251268" target="\_blank">2251268</a>).

#### Cellular Location

Mitochondrion matrix

### Goat Anti-ACADM Antibody - Protocols

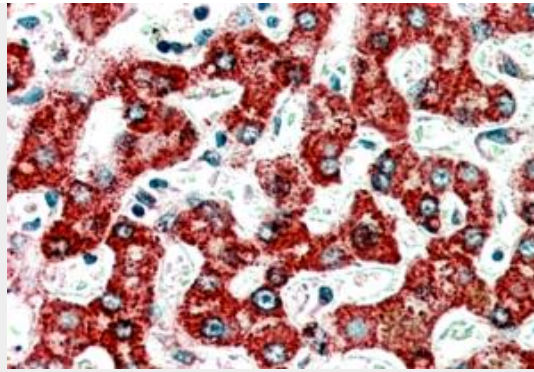
Provided below are standard protocols that you may find useful for product applications.

- [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.