

#### **KD-Validated Anti-ACADM Rabbit Monoclonal Antibody**

Rabbit monoclonal antibody Catalog # AGI1369

## **Specification**

Aliases

## KD-Validated Anti-ACADM Rabbit Monoclonal Antibody - Product Information

WB, FC, ICC **Application Primary Accession** P11310

Reactivity Rat, Human, Mouse Clonality Monoclonal Isotype Rabbit IgG

Calculated MW Predicted, 47 kDa; observed, 40 kDa KDa

Gene Name **ACADM** 

> ACADM; Acyl-CoA Dehydrogenase Medium Chain 2 3 5; MCAD; ACAD1; Medium-Chain

Specific Acyl-CoA Dehydrogenase, Mitochondrial; Acyl-Coenzyme A Dehvdrogenase, C-4 To C-12 Straight

Chain; Medium-Chain Acyl-CoA

Dehydrogenase; Acyl-CoA Dehydrogenase, C-4 To C-12 Straight Chain; Medium Chain **Acyl-CoA Dehydrogenase; Testicular Tissue** Protein Li 7; EC 1.3.99.3; EC 1.3.8.7; EC

1.3.99

A synthesized peptide derived from human **Immunogen** 

**ACADM** 

## KD-Validated Anti-ACADM Rabbit Monoclonal Antibody - Additional Information

Gene ID 34

**Other Names** 

Medium-chain specific acyl-CoA dehydrogenase, mitochondrial, MCAD, 1.3.8.7, Medium chain acyl-CoA dehydrogenase, MCADH, ACADM (<a href="http://www.genenames.org/cgi-bin/gene symbol report?hgnc id=89"

target=" blank">HGNC:89</a>)

## KD-Validated Anti-ACADM Rabbit Monoclonal 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/21237683" target="\_blank">21237683</a>, PubMed:<a href="http://www.uniprot.org/citations/2251268" target="\_blank">2251268</a>, PubMed:<a href="http://www.uniprot.org/citations/8823175" target="\_blank">8823175</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/15159392" target="\_blank">15159392</a>, PubMed:<a href="http://www.uniprot.org/citations/25416781" target="\_blank">25416781</a>/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>/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>, PubMed:<a href="http://www.uniprot.org/citations/8823175" target="\_blank">8823175</a>/a>).

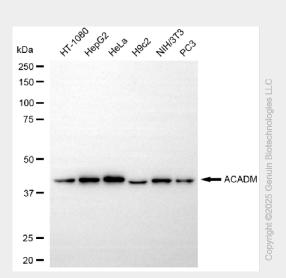
**Cellular Location**Mitochondrion matrix

## KD-Validated Anti-ACADM Rabbit Monoclonal Antibody - Protocols

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

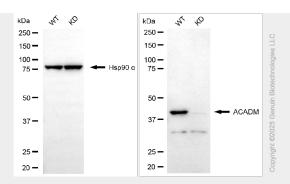
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# **KD-Validated Anti-ACADM Rabbit Monoclonal Antibody - Images**

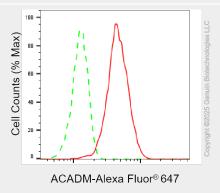


Western blotting analysis using anti-ACADM antibody (Cat#AGI1369). Total cell lysates (30 μg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ACADM antibody (Cat#AGI1369, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

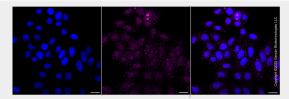




Western blotting analysis using anti-ACADM antibody (Cat#AGI1369). ACADM expression in wild type (WT) and ACADM knockdown (KD) 293T cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-ACADM antibody (Cat#AGI1369, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of ACADM expression in HepG2 cells using anti-ACADM antibody (Cat#AGI1369, 1:2,000). Green, isotype control; red, ACADM.



Immunocytochemical staining of HepG2 cells with anti-ACADM antibody (Cat#AGI1369, 1:1,000). Nuclei were stained blue with DAPI; ACADM was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20  $\mu$ m.