

Product Name: KD-Validated Acyl-CoA Dehydrogenase Short Chain Recombinant Rabbit Monoclonal Antibody

Catalog #: KVA00223

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 44.3kDa

Antigen Information

Gene Name	ACADS ACADS; Acyl-CoA Dehydrogenase Short Chain; SCAD; ACAD3; Short-Chain Specific Acyl-CoA Dehydrogenase, Mitochondrial; Acyl-Coenzyme A Dehydrogenase, C-2 To C-3 Short Chain;
Alternative Names	Butyryl-CoA Dehydrogenase; Mitochondrial Short-Chain Specific Acyl-CoA Dehydrogenase; Acyl-CoA Dehydrogenase, C-2 To C-3 Short Chain; Epididymis Secretory Sperm Binding Protein; Unsaturated Acyl-CoA Reductase; EC 1.3.99.2; EC 1.3.8.1; EC 1.3.99
Gene ID	35.0
SwissProt ID	P16219
Immunogen	A synthesized peptide derived from human ACADS / SCAD

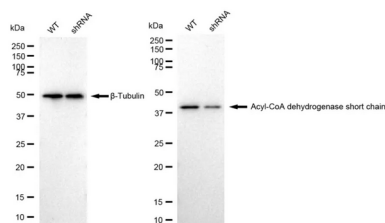
Background

This gene encodes a tetrameric mitochondrial flavoprotein, which is a member of the acyl-CoA dehydrogenase family. This enzyme catalyzes the initial step of the mitochondrial fatty acid beta-oxidation pathway. Mutations in this gene have been associated with short-chain acyl-CoA dehydrogenase (SCAD) deficiency. Alternative splicing results in two variants which encode different isoforms. [provided by RefSeq, Oct 2014]

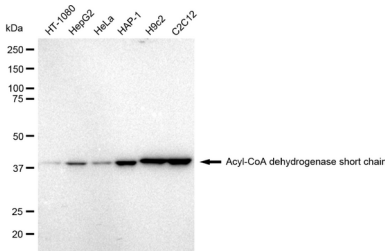
Research Area

Signal Transduction, Cardiovascular, Cancer, Metabolism

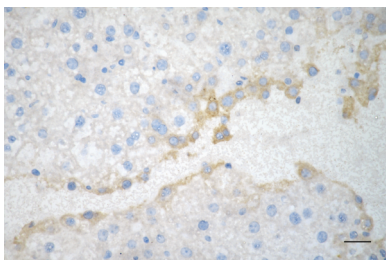
Image Data



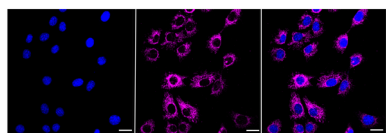
Western blotting analysis using Acyl-CoA dehydrogenase short chain antibody (KVA00223). Acyl-CoA dehydrogenase short chain expression in wild type (WT) and acyl-CoA dehydrogenase short chain shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Acyl-CoA dehydrogenase short chain antibody (KVA00223, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



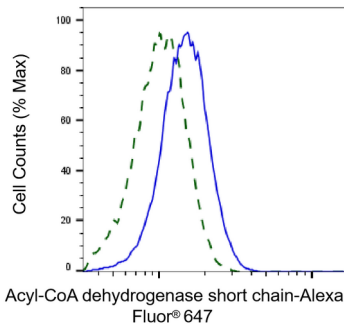
Western blotting analysis using Acyl-CoA dehydrogenase short chain antibody (KVA00223). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Acyl-CoA dehydrogenase short chain antibody (KVA00223, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



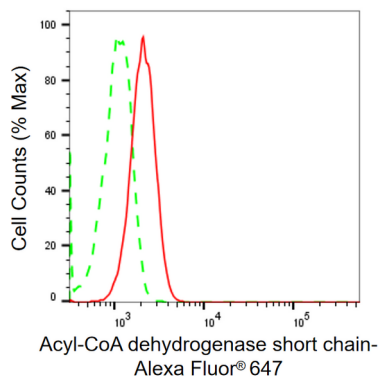
Immunohistochemistry was performed on paraffin-embedded mouse liver using acyl-CoA dehydrogenase short chain antibody (KVA00223, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HeLa cells with Acyl-CoA dehydrogenase short chain antibody (KVA00223, 1:1,000). Nuclei were stained blue with DAPI; Acyl-CoA dehydrogenase short chain 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 µm.



Validation of Acyl-CoA dehydrogenase short chain knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Acyl-CoA dehydrogenase short chain antibody (KVA00223, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Acyl-CoA dehydrogenase short chain expression in C2C12 cells using Acyl-CoA dehydrogenase short chain antibody (KVA00223, 1:2,000). Green, isotype control; red, Acyl-CoA dehydrogenase short chain.