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ACADSB Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20749c

Product Information

Application	WB, E
Primary Accession	P45954
Reactivity	Human
Predicted	Bovine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB50291
Calculated MW	47485

Additional Information

Gene ID	36
Other Names	Short/branched chain specific acyl-CoA dehydrogenase, mitochondrial, SBCAD, 2-methyl branched chain acyl-CoA dehydrogenase, 2-MEBCAD, 2-methylbutyryl-coenzyme A dehydrogenase, 2-methylbutyryl-CoA dehydrogenase, ACADSB
Target/Specificity	This ACADSB antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 239-273 amino acids from the Central region of human ACADSB.
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	ACADSB Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ACADSB (HGNC:91)
Function	Short and branched chain specific acyl-CoA dehydrogenase that catalyzes 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:10832746, PubMed:11013134, PubMed:21430231, PubMed:7698750). Among the different mitochondrial acyl-CoA dehydrogenases, acts specifically on short and branched chain acyl-CoA derivatives such as (S)-2-methylbutyryl-CoA as well as short straight chain acyl-CoAs such as butyryl-CoA (butanoyl- CoA) (PubMed:10832746, PubMed:11013134, PubMed:21430231, PubMed:7698750). Plays an important role in the metabolism of L- isoleucine by catalyzing the dehydrogenation of 2-methylbutyryl-CoA, one of the steps of the L-isoleucine catabolic pathway (PubMed:10832746, PubMed:11013134). Can also act on valproyl-CoA, a metabolite of valproic acid, an antiepileptic drug (PubMed:8660691).
Cellular Location	Mitochondrion matrix
Tissue Location	Ubiquitously expressed, with highest levels in heart, muscle and liver.

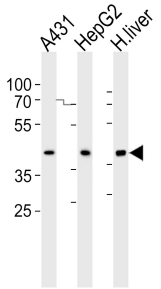
Background

Has greatest activity toward short branched chain acyl- CoA derivative such as (s)-2-methylbutyryl-CoA, isobutyryl-CoA, and 2-methylhexanoyl-CoA as well as toward short straight chain acyl-CoAs such as butyryl-CoA and hexanoyl-CoA. Can use valproyl- CoA as substrate and may play a role in controlling the metabolic flux of valproic acid in the development of toxicity of this agent.

References

Rozen R.,et al.Genomics 24:280-287(1994).
Andresen B.S.,et al.Am. J. Hum. Genet. 67:1095-1103(2000).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Deloukas P.,et al.Nature 429:375-381(2004).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

Images



Western blot analysis of lysates from A431, HepG2 cell line and human liver tissue lysate(from left to right), using ACADSB Antibody (Center)(Cat. #AP20749c). AP20749c 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.