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ACADSB Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP8537b

Specification

ACADSB Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P45954

ACADSB Antibody (C-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP8537b was selected from the C-term region of human ACADSB. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ACADSB Antibody (C-term) Blocking Peptide - Protein Information

Name ACADSB (HGNC:91)

Function
Short and branched chain specific acyl-CoA dehydrogenase that catalyzes the removal of one hydrogen from C-2 and C-3 of the fatty acyl-CoA thioester, resulting in the formation of trans-2-enoyl-CoA (PubMed:7698750, PubMed:11013134, PubMed:21430231, PubMed:10832746). 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 (PubMed:7698750, PubMed:<a

href="http://www.uniprot.org/citations/11013134" target="_blank">11013134, PubMed:21430231, PubMed:10832746). 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:11013134, PubMed:10832746). Can also act on valproyl-CoA, a metabolite of valproic acid, an antiepileptic drug (PubMed:8660691).

Cellular Location
Mitochondrion matrix

Tissue Location
Ubiquitously expressed.

ACADSB Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

ACADSB Antibody (C-term) Blocking Peptide - Images

ACADSB Antibody (C-term) Blocking Peptide - Background

ACADSB 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. This protein 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.

ACADSB Antibody (C-term) Blocking Peptide - References

Saenger,A.K., et.al., Biochemistry 44 (49), 16043-16053 (2005)