

**ACADSB Blocking Peptide (Center)**  
**Synthetic peptide**  
**Catalog # BP20749c****Specification**

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**ACADSB Blocking Peptide (Center) - Product Information**Primary Accession [P45954](#)**ACADSB Blocking Peptide (Center) - 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 is selected from aa 239-253 of HUMAN ACADSB

**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 Blocking Peptide (Center) - 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](http://www.uniprot.org/citations/7698750), PubMed: [11013134](http://www.uniprot.org/citations/11013134), PubMed: [21430231](http://www.uniprot.org/citations/21430231), PubMed: [10832746](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/7698750), PubMed: [11013134](http://www.uniprot.org/citations/11013134), PubMed: [21430231](http://www.uniprot.org/citations/21430231), PubMed: [10832746](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/11013134" target="\_blank">11013134</a>, PubMed:<a href="http://www.uniprot.org/citations/10832746" target="\_blank">10832746</a>). Can also act on valproyl-CoA, a metabolite of valproic acid, an antiepileptic drug (PubMed:<a href="http://www.uniprot.org/citations/8660691" target="\_blank">8660691</a>).

**Cellular Location**

Mitochondrion matrix

**Tissue Location**

Ubiquitously expressed.

**ACADSB Blocking Peptide (Center) - Protocols**

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

- [Blocking Peptides](#)

**ACADSB Blocking Peptide (Center) - Images****ACADSB Blocking Peptide (Center) - 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.

**ACADSB Blocking Peptide (Center) - 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.