

## Recombinant Human Acyl-CoA Dehydrogenase, Short/Branched Chain, His-tagged

**Cat. No.** ACADSB-2516H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human ACADSB protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | 34-432aa                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | ACADSB is a member of the acyl-CoA dehydrogenase family of enzymes that catalyze the dehydrogenation of acyl-CoA derivatives in the metabolism of fatty acids or branch chained amino acids. ACADSB catalyzes the degradation of L-isoleucine and has the highest affinity for (s)-2-methylbutyryl-CoA, isobutyryl-CoA and 2-methylhexanoyl-CoA as substrates. |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 10% glycerol, 1mM DTT.                                                                                                                                                                                                                                                                          |
| <b>Molecular Mass</b>   | 46.4 kDa (424aa)                                                                                                                                                                                                                                                                                                                                               |
| <b>AA Sequence</b>      | MGSSHHHHHH SSGLVPRGSH MGSHMKSSQS EALLNITNNG IHFAPLQTFT<br>DEEMMIKSSV KKFAQEQIAP LVSTMDENSK MEKSVIQGLF QQGLMGIEVD<br>PEYGGTGASF LSTVLVIEEL AKVDASVAVF CEIQNTLINT LIRKHGTEEQ<br>KATYLPQLTT EKVGSFCLSE AGAGSDSFAL KTRADKEGDY YVLNGSKMWI                                                                                                                           |

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SSAEHAGLFL VMANVDPTIG YKGITSFLVD RDTPGLHIGHK PENKLGLRAS  
STCPLTFENV KVPEANILGQ IGHGYKYAIG SLNEGRIGIA AQMLGLAQGC  
FDYTIPYIKE RIQFGKRLFD FQGLQHVAH VATQLEAARL LTYNAARLE  
AGKPFKEAS MAKYYASEIA GQTTSKCI EW MGGVG YTKDY PVEKYFRDAK  
IGTIYEGASN IQLNTIAKHI DAEY

**Purity** >90% by SDS - PAGE

**Applications** SDS-PAGE

**Storage** Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**Concentration** 0.5 mg/ml (determined by Bradford assay)

## GENE INFORMATION

**Gene Name** [ACADSB acyl-CoA dehydrogenase, short/branched chain \[ Homo sapiens \]](#)

**Official Symbol** ACADSB

### Synonyms

ACADSB; acyl-CoA dehydrogenase, short/branched chain; ACAD7; SBCAD; 2-MEBCAD; short/branched chain specific acyl-CoA dehydrogenase, mitochondrial; 2-methylbutyryl-coenzyme A dehydrogenase; 2-methyl branched chain acyl-CoA dehydrogenase; 2 MEBCAD; 2 methyl branched chain acyl CoA dehydrogenase; 2 methylbutyryl CoA dehydrogenase; 2-methylbutyryl-CoA dehydrogenase; ACDSB\_HUMAN; acyl CoA dehydrogenase, short/branched chain; OTTHUMP00000020685; OTTHUMP00000046795; Short/branched chain specific acyl-CoA dehydrogenase; acyl-Coenzyme A dehydrogenase, short/branched chain; 2-methylbutyryl-coenzyme A dehydrogenase; short/branched chain specific acyl-CoA dehydrogenase, mitochondrial; EC 1.3.99

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|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene ID</b>             | 36                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>mRNA Refseq</b>         | <a href="#">NM_001609</a>                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Protein Refseq</b>      | <a href="#">NP_001600</a>                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>MIM</b>                 | 600301                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>UniProt ID</b>          | <a href="#">P45954</a>                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Chromosome Location</b> | 10q26.13                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Pathway</b>             | Branched-chain amino acid catabolism, organism-specific biosystem; Fatty acid metabolism, organism-specific biosystem; Fatty acid metabolism, conserved biosystem; Metabolism, organism-specific biosystem; Metabolism of amino acids and derivatives, organism-specific biosystem; Valine, leucine and isoleucine degradation, organism-specific biosystem; Valine, leucine and isoleucine degradation, conserved biosystem; |
| <b>Function</b>            | acyl-CoA dehydrogenase activity; electron carrier activity; flavin adenine dinucleotide binding; short-branched-chain-acyl-CoA dehydrogenase activity                                                                                                                                                                                                                                                                         |