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

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

## SPECIFICATION

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| **Product Overview** | Recombinant human ACADSB protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques. |
| **Species** | Human |
| **Source** | E.coli |
| **ProteinLength** | 34-432aa |
| **Description** | 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. |
| **Form** | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 10% glycerol, 1mM DTT. |
| **Molecular Mass** | 46.4 kDa (424aa) |
| **AA Sequence** | MGSSHHHHHH SSGLVPRGSH MGSHMKSSQS EALLNITNNG IHFAPLQTFT DEEMMIKSSV KKFAQEQIAP LVSTMDENSK MEKSVIQGLF QQGLMGIEVD PEYGGTGASF LSTVLVIEEL AKVDASVAVF CEIQNTLINT LIRKHGTEEQ KATYLPQLTT EKVGSFCLSE AGAGSDSFAL KTRADKEGDY YVLNGSKMWI |

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| | SSAEHAGLFL VMANVDPTIG YKGITSFLVD RDTPGLHIGK PENKLGLRAS STCPLTFENV KVPEANILGQ IGHGYKYAIG SLNEGRIGIA AQMLGLAQGC FDYTIPYIKE RIQFGKRLFD FQGLQHQVAH VATQLEAARL LTYNAARLLE AGKPFIKEAS MAKYYASEIA GQTTSKCIEW MGGVGYTKDY 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

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| **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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| **Gene ID** | 36 |
| **mRNA Refseq** | NM_001609 |
| **Protein Refseq** | NP_001600 |
| **MIM** | 600301 |
| **UniProt ID** | P45954 |
| **Chromosome Location** | 10q26.13 |
| **Pathway** | 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; |
| **Function** | acyl-CoA dehydrogenase activity; electron carrier activity; flavin adenine dinucleotide binding; short-branched-chain-acyl-CoA dehydrogenase activity |

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