

Recombinant Human Acyl-Coenzyme A dehydrogenase, His tagged

Cat. No. ACADS-1829H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ACADS protein, fused to His-tag at N-terminus, was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques.
Species	Human
Source	<i>E.coli</i>
Description	ACADS (Acyl-Coenzyme A dehydrogenase), also known as SCAD or ACAD3, is a tetrameric mitochondrial flavoprotein, which is a member of the acyl-CoA dehydrogenase family. This enzyme catalyzes the initial step of the mitochondrial fatty acid beta-oxidation pathway. Mutations of ACADS have been associated with fatty acid oxidation defects and metabolic diseases such as short-chain acyl-CoA dehydrogenase deficiency (SCAD deficiency).
Sequences of amino acids	MGSSHHHHH SSGLVPRGSH MLHTIYQSVE LPETHQMLLQ TCRDFAEKEL FPIAAQVDKE HLFPAQVKK MGGLGLLAM VPEELGGAGL DYLAYAIAME EISRGCASTG VIMSVNNSLY LGPILKFGSK EQKQAWVTPF TSGDKIGCFA LSEPGNGSDA GAASTTARAE GDSWVLNGTK AWITNAWEAS AAVVFASTDR ALQNKISAF LVPMPPTPLT LGKKEDKLG RGSSTANLIF EDCRIPKDSI LGEPGMGFKI AMQTLDMGRI GIASQALGIA QTALDCAVNY AENRMAFGAP LTKLQVIQFK LADMALALES ARLLTWRAAM LKDNKKPFK EAAMAKLAAS EAATAISHQA IQILGGMGYV TEMPAERHYR DARITEIYEG TSEIQLRVIA GHLLRSYRS

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Form	Liquid. In 20 mM Tris-HCl buffer (pH8.0) containing 1mM DTT 0.1 M NaCl, and 20% glycerol
Molecular Weight	44.0 kDa (409aa)
Purity	> 95% by SDS - PAGE
Concentration	0.5 mg/ml (determined by Bradford assay)
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.
Pathways	Butanoate metabolism; Fatty acid metabolism; Metabolic pathways; Valine, leucine and isoleucine degradation; Metabolism of lipids and lipoproteins.

GENE INFORMATION

Gene Name	ACADS acyl-Coenzyme A dehydrogenase, C-2 to C-3 short chain [Homo sapiens]
Synonyms	ACADS; SCAD; ACAD3; acyl-Coenzyme A dehydrogenase, C-2 to C-3 short chain; short-chain acyl-CoA dehydrogenase; butyryl-CoA dehydrogenase; unsaturated acyl-CoA reductase; short chain acyl-CoA dehydrogenase; EC 1.3.99.2; Butyryl-CoA dehydrogenase
Gene ID	35
mRNA Refseq	NM_000017
Protein Refseq	NP_000008
MIM	606885

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UniProt ID	P16219
Chromosome Location	12q22-qter
Function	FAD binding; acyl-CoA binding; butyryl-CoA dehydrogenase activity.

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