

# 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 *E. coli* and purified by using conventional chromatography techniques.

### Species

Human

### Source

*E. coli*

### 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 SSSLVPRGSH MLHTIYQSVE LPETHQMLLQ TCRDFAEKEL  
 FPIAAQVDKE HLFPAQVKK MGGLGLLAM VPEELGGAGL DYLAYAIAME  
 EISRGCSTG VIMSVNNSLY LGPILKFGSK EQKQAWVTPF TSGDKIGCFA  
 LSEPGNGSDA GAASTTARAE GDSWVLNGTK AWITNAWEAS AAVVFASTDR  
 ALQNKISAF LVPMPPTGLT LGKKEDKLG I RGSSTANLIF EDCRIPKDSI  
 LGEPGMGFKI AMQTLDMGRI GIASQALGIA QTALDCAVNY AENRMAFGAP  
 LTKLQVIQFK LADMALALES ARLLTWRAAM LKDNKKPFIK EAAMAKLAAS  
 EAATAISHQA IQILGGMGYV TEMPAERHYR DARITEIYEG TSEIQRLVIA  
 GHLLRSYRS

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

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">ACADS acyl-Coenzyme A dehydrogenase, C-2 to C-3 short chain [ Homo sapiens ]</a>
<b>Synonyms</b>	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
<b>Gene ID</b>	<a href="#">35</a>
<b>mRNA Refseq</b>	<a href="#">NM_000017</a>
<b>Protein Refseq</b>	<a href="#">NP_000008</a>
<b>MIM</b>	<a href="#">606885</a>

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

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