

Recombinant Human Acetyl-CoA Acyltransferase 1, His-tagged

Cat. No. ACAA1-784H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant humanACAA1 protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques. MW = 43.8 kDa (419aa) confirmed by MALDI-TOF.

Species

Human

Source

E.coli

Description

ACAA1 is a member of the thiolase family of enzymes and is involved in lipid metabolism. This protein is localized to the peroxisome and catalyzes the conversion of acyl-CoA and acetyl-CoA to 3-oxoacyl-CoA in the fatty acid oxidation pathway. ACAA1 shows high enzymatic activity in liver, kidney, intestine and white adipose tissue in rats. Deficiency of this enzyme leads to pseudo-Zellweger syndrome.

Sequences Of Amino Acids

MGSSHHHHHH SSGLVPRGSH MLSGAPQASA ADVVVVHGRR TAICRAGRGG
FKDTPDELL SAVMTAVLKD VNL RPEQLGD ICVGNVLQPG AGAIMARIAQ
FLSDIPETVP LSTVNRQCSS GLQAVASIAG GIRNGSYDIG MACGVESMSL
ADRGNPGNIT SRLMEKEKAR DCLIPMGITS ENVAERFGIS REKQDTFALA
SQQKAARAQS KGCFQAEIVP VTTTVHDDKG TKRSITVTQD EGIRPSTTME
GLAKLKPAFK KDGSTTAGNS SQVSDGAAAI LLARRSKAEE LGLPILGVLR
SYAVVGVPD IMGIGPAYAI PVALQKAGLT VSDVDIFEIN EAFASQAAYC
VEKLRLPPEK VNPLGGAVAL GHPLGCTGAR QVITLLNELK RRGKRAYGVV
SMCIGTGMGA AAVFEYPGN

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Purity	> 95% by SDS – PAGE.
Form	Liquid. In 20mM Tris-HCl buffer(pH 8.0) containing 10% glycerol 1mM DTT, 0.1M NaCl.
Concentration	1 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.

GENE INFORMATION

Gene Name	ACAA1 acetyl-CoA acyltransferase 1 [Homo sapiens]
Synonyms	ACAA1; acetyl-CoA acyltransferase 1; ACAA; THIO; PTHIO; 3-ketoacyl-CoA thiolase, peroxisomal; beta-ketothiolase; OTTHUMP00000209180; OTTHUMP00000209821; OTTHUMP00000209822; peroxisomal 3-oxoacyl-CoA thiolase; acetyl-Coenzyme A acyltransferase 1; peroxisomal 3-oxoacyl-Coenzyme A thiolase; EC 2.3.1.16
Gene ID	30
mRNA Refseq	NM_001130410
Protein Refseq	NP_001123882
MIM	604054
UniProt ID	P09110
Chromosome Location	3p23-p22

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Pathway

Biosynthesis of unsaturated fatty acids; Fatty acid metabolism; Metabolic pathways; PPAR signaling pathway; KEGG pathway; Valine, leucine and isoleucine degradation

Function

acetyl-CoA C-acyltransferase activity; acyltransferase activity; protein binding; transferase activity

PDB rendering based
on 2iik.

