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## ACADSB Human

Description: ACADSB Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 424 amino acids (34-432) and having a molecular mass of 46.4kDa.ACADSB is fused to a 25 amino acid His-tag at N-terminus & Dyproprietary chromatographic techniques.

Catalog #:ENPS-650

For research use only.

Synonyms: Short/branched chain specific acyl-CoA dehydrogenase mitochondrial, SBCAD, 2-methyl branched chain acyl-CoA dehydrogenase, 2-MEBCAD, 2-methylbutyryl-coenzyme A dehydrogenase, 2-methylbutyryl-CoA dehydrogenase, ACADSB, ACAD7, SBCAD, 2-MEBCAD.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered clear solution.

Amino Acid Sequence: MGSSHHHHHH SSGLVPRGSH MGSHMKSSQS EALLNITNNG IHFAPLQTFT DEEMMIKSSV KKFAQEQIAP LVSTMDENSK MEKSVIQGLF QQGLMGIEVD PEYGGTGASF LSTVLVIEEL AKVDASVAVF CEIQNTLINT LIRKHGTEEQ KATYLPQLTT EKVGSECLSE AGAGSDSFAL KTRADKEGDY YVLNGSKMWLSSAFHAGLEL VMANVDPTIG YKGITSFLVD RD

Purity: Greater than 90.0% as determined by SDS-PAGE.

## Formulation:

The ACADSB solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.1M NaCl, 10% glycerol and 1mM DTT.

## Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

# Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

#### Introduction:

Short/branched chain specific acyl-CoA dehydrogenase (ACADSB) belongs to the acyl-CoA dehydrogenase family of enzymes which 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 while having the highest affinity for (s)-2-methylbutyryl-CoA, isobutyryl-CoA and 2-methylhexanoyl-CoA as substrates. ACADSB may use valproyl-CoA as substrate and have a role in regulating the metabolic flux of valproic acid in the development of toxicity of this agent. ACADSB gene defects cause the short/branched-chain acyl-CoA dehydrogenase deficiency (SBCADD), which is an autosomal recessive disorder characterized by an increase of 2-methylbutyrylglycine and 2-methylbutyrylcarnitine in blood and urine.

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