

Human Isovaleryl-CoA dehydrogenase / IVD Protein (aa 30-423, His Tag)

Catalog Number: 14206-H07B



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

ACAD2; 1300016K07Rik; 6720455E18Rik; AI463340

Protein Construction:

A DNA sequence encoding the human IVD (AAH17202.1) (His30-His423) was fused with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human IVD consists of 412 amino acids and has a calculated molecular mass of 45.3 kDa. The recombinant protein migrates as an approximately 43 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0, 10% glycerol

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

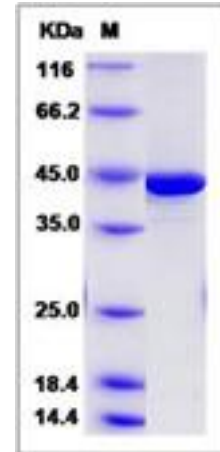
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Isovaleryl-CoA dehydrogenase, also known as IVD, plays an essential role in processing proteins obtained from the diet. The body breaks down proteins from food into smaller parts called amino acids. Amino acids can be further processed to provide energy for growth and development. Isovaleryl-CoA dehydrogenase helps process a particular amino acid called leucine. Specifically, isovaleryl-CoA dehydrogenase is responsible for the third step in the breakdown of leucine. This step is a chemical reaction that converts a molecule called isovaleryl-CoA to another molecule, 3-methylcrotonyl-CoA. Additional chemical reactions convert 3-methylcrotonyl-CoA into molecules that are used for energy.

References

1. BACHHAWAT BK, *et al.* (1956) Enzymatic carboxylation of beta-hydroxyisovaleryl coenzyme A. *J Biol Chem.* 219(2):539-50.
2. Ikeda Y, *et al.* (1983) Purification and characterization of isovaleryl coenzyme A dehydrogenase from rat liver mitochondria. *J Biol Chem.* 258(2):1077-85.
3. Tanaka K, *et al.* (1966) Enzymatic carboxylation of beta-hydroxyisovaleryl coenzyme A. *J Biol Chem.* 219(2):539-50.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>