

short-chain acyl-CoA dehydrogenase

Cat. No. EXWM-1405

Lot. No. (See product label)

Introduction

Description

Contains FAD as prosthetic group. One of several enzymes that catalyse the first step in fatty acids β -oxidation. The enzyme catalyses the oxidation of saturated short-chain acyl-CoA thioesters to give a trans 2,3-unsaturated product by removal of the two pro-R-hydrogen atoms. The enzyme from beef liver accepts substrates with acyl chain lengths of 3 to 8 carbon atoms. The highest activity was reported with either butanoyl-CoA or pentanoyl-CoA. The enzyme from rat has only 10% activity with hexanoyl-CoA (compared to butanoyl-CoA) and no activity with octanoyl-CoA. cf. EC 1.3.8.7, medium-chain acyl-CoA dehydrogenase, EC 1.3.8.8, long-chain acyl-CoA dehydrogenase, and EC 1.3.8.9, very-long-chain acyl-CoA dehydrogenase.

Synonyms

butyryl-CoA dehydrogenase; butanoyl-CoA dehydrogenase; butyryl dehydrogenase; unsaturated acyl-CoA reductase; ethylene reductase; enoyl-coenzyme A reductase; unsaturated acyl coenzyme A reductase; butyryl coenzyme A dehydrogenase; short-chain acyl CoA dehydrogenase; short-chain acyl-coenzyme A dehydrogenase; 3-hydroxyacyl CoA reductase; butanoyl-CoA:(acceptor) 2,3-oxidoreductase; ACADS (gene name).

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.3.8.1

CAS No.

9027-88-7

Reaction

a short-chain acyl-CoA + electron-transfer flavoprotein = a short-chain trans-2,3-dehydroacyl-CoA + reduced electron-transfer flavoprotein

Notes

This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage

Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.