Creative Enzymes®

glutaryl-CoA dehydrogenase (ETF)

Cat. No. EXWM-1413

Lot. No. (See product label)

Introduction

Description Contains FAD. The enzyme catalyses the oxidation of glutaryl-CoA to glutaconyl-CoA (which remains bound to the enzyme), and the decarboxylation of the latter to crotonyl-CoA (cf. EC 4.1.1.70, glutaconyl-CoA decarboxylase). FAD is the electron acceptor in the oxidation of the substrate, and its reoxidation by electron-transfer flavoprotein completes the catalytic cycle. The anaerobic, sulfate-reducing bacterium Desulfococcus multivorans contains two glutaryl-CoA dehydrogenases: a decarboxylating enzyme (this entry), and a non-decarboxylating enzyme that only catalyses the oxidation to glutaconyl-CoA (EC 1.3.99.32).

Synonyms glutaryl coenzyme A dehydrogenase; glutaryl-CoA:(acceptor) 2,3-oxidoreductase (decarboxylating); glutaryl-CoA dehydrogenase

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.3.8.6

CAS No. 37255-38-2

Reaction glutaryl-CoA + electron-transfer flavoprotein = crotonyl-CoA + CO2 + reduced electron-transfer flavoprotein (overall reaction); (1a) glutaryl-CoA + electron-transfer flavoprotein = (E)-glutaconyl-CoA + reduced electron-transfer flavoprotein; (1b) (E)-glutaconyl-CoA = crotonyl-CoA + CO2

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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.