Creative Enzymes®

alcohol dehydrogenase (cytochrome c)

Cat. No. EXWM-0390

Lot. No. (See product label)

Introduction

Description A periplasmic PQQ-containing quinoprotein. Occurs in Pseudomonas and Rhodopseudomonas. The enzyme from Pseudomonas aeruginosa uses a specific inducible cytochrome c550 as electron acceptor. Acts on a wide range of primary and secondary alcohols, but not methanol. It has a homodimeric structure [contrasting with the heterotetrameric structure of EC 1.1.2.7, methanol dehydrogenase (cytochrome c)]. It is routinely assayed with phenazine methosulfate as electron acceptor. Activity is stimulated by ammonia or amines. Like all other quinoprotein alcohol dehydrogenases it has an 8-bladed 'propeller' structure, a calcium ion bound to the PQQ in the active site and an unusual disulfide ring structure in close proximity to the PQQ.

Synonyms type I quinoprotein alcohol dehydrogenase; quinoprotein ethanol dehydrogenase

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.1.2.8

Reaction a primary alcohol + 2 ferricytochrome c = an aldehyde + 2 ferrocytochrome c + 2 H+

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 ℃.