Creative Enzymes®

alcohol dehydrogenase (quinone)

Cat. No. EXWM-0433

Lot. No. (See product label)

Introduction

Description	Only described in acetic acid bacteria where it is involved in acetic acid production. Associated with membrane. Electron acceptor is membrane ubiquinone. A model structure suggests that, like all other quinoprotein alcohol dehydrogenases, the catalytic subunit 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; the catalytic subunit also has a heme c in the C-terminal domain. The enzyme has two additional subunits, one of which contains three molecules of heme c. It does not require amines for activation. It has a restricted substrate specificity, oxidizing a few primary alcohols (C2 to C6), but not methanol, secondary alcohols and some aldehydes. It is assayed with phenazine methosulfate or with ferricyanide.
Synonyms	type III ADH; membrane associated quinohaemoprotein alcohol dehydrogenase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.1.5.5
Reaction	ethanol + ubiquinone = acetaldehyde + ubiquinol
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 ℃.