Creative Enzymes®

methanol dehydrogenase (cytochrome c)

Cat. No. EXWM-0389

Lot. No. (See product label)

Introduction

Description A periplasmic quinoprotein alcohol dehydrogenase that only occurs in methylotrophic bacteria. It uses the novel specific cytochrome cL as acceptor. Acts on a wide range of primary alcohols, including ethanol, duodecanol, chloroethanol, cinnamyl alcohol, and also formaldehyde. Activity is stimulated by ammonia or methylamine. It is usually assayed with phenazine methosulfate. 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. It differs from EC 1.1.2.8, alcohol dehydrogenase (cytochrome c), in having a high affinity for methanol and in having a second essential small subunit (no known function).

Synonyms methanol dehydrogenase; MDH

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.1.2.7

CAS No. 37205-43-9

Reaction a primary alcohol + 2 ferricytochrome cL = an aldehyde + 2 ferrocytochrome cL + 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 ℃.