Creative Enzymes®

Recombinant Pseudomonas sp. Formaldehyde Dehydrogenase, C-His tag

Cat. No. EXWM-1149

Lot. No. (See product label)

Introduction

Description	In enzymology, a formaldehyde dehydrogenase (EC 1.2.1.46) is an enzyme that catalyzes the chemical reaction formaldehyde + NAD+ + H2O ⇌ formate + NADH + H+ The 3 substrates of this enzyme are formaldehyde, NAD+, and H2O, whereas its 3 products are formate, NADH, and H+. This enzyme belongs to the family of oxidoreductases, specifically those acting on the aldehyde or oxo group of donor with NAD+ or NADP+ as acceptor. The systematic name of this enzyme class is formaldehyde:NAD+ oxidoreductase. Other names in common use include NAD+-linked formaldehyde dehydrogenase, s-nitrosoglutathione reductase (GSNO reductase) and NAD+-dependent formaldehyde dehydrogenase. This enzyme participates in methane metabolism.

Product Information

Species	Pseudomonas sp.
Source	E. coli
Form	Liquid
EC Number	EC 1.2.1.46
CAS No.	9028-84-6
Molecular Weight	42.91 kDa
Purity	>95% by SDS-PAGE
Activity	2 U/mg
Buffer	PBS, pH 7.4
Unit Definition	One unit will oxidize 1.0 μmole of formaldehyde to formic acid per minute at pH 7.5 at 37°C.
Reaction	formaldehyde + NAD+ + H2O = formate + NADH + 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 under sterile conditions at -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.