Creative Enzymes®

S-(hydroxymethyl)glutathione dehydrogenase

Cat. No. EXWM-0192

Lot. No. (See product label)

Introduction

Description The substrate, S-(hydroxymethyl)glutathione, forms spontaneously from glutathione and formaldehyde; its rate of formation is increased in some bacteria by the presence of EC 4.4.1.22, S-(hydroxymethyl)glutathione synthase. This enzyme forms part of the pathway that detoxifies formaldehyde, since the product is hydrolysed by EC 3.1.2.12, S-formylglutathione hydrolase. The human enzyme belongs to the family of zinc-dependent alcohol dehydrogenases. Also specifically reduces S-nitrosylglutathione.

Synonyms NAD-linked formaldehyde dehydrogenase (incorrect); formaldehyde dehydrogenase (incorrect); formic dehydrogenase (incorrect); class III alcohol dehydrogenase; ADH3; χ-ADH; FDH (incorrect); formaldehyde dehydrogenase (glutathione) (incorrect); GS-FDH (incorrect); glutathione-dependent formaldehyde dehydrogenase (incorrect); NAD-dependent formaldehyde dehydrogenase; GD-FALDH; NAD- and glutathione-dependent formaldehyde dehydrogenase

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.1.1.284

Reaction S-(hydroxymethyl)glutathione + NAD(P)+ = S-formylglutathione + NAD(P)H + 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 ℃.