Creative Enzymes®

methionine synthase

Cat. No. EXWM-1727

Lot. No. (See product label)

Introduction

Description	Contains zinc and cobamide. The enzyme becomes inactivated occasionally during its cycle by oxidation of Co(I) to Co(II). Reactivation by reductive methylation is catalysed by the enzyme itself, with S-adenosyl-L-methionine as the methyl donor and a reducing system. For the mammalian enzyme, the reducing system involves NADPH and EC 1.16.1.8, [methionine synthase] reductase. In bacteria, the reducing agent is flavodoxin, and no further catalyst is needed (the flavodoxin is kept in the reduced state by NADPH and EC 1.18.1.2, ferredoxin-NADP+ reductase). Acts on the monoglutamate as well as the triglutamate folate, in contrast with EC 2.1.1.14, 5-methyltetrahydropteroyltriglutamate-homocysteine S-methyltransferase, which acts only on the triglutamate.
Synonyms	5-methyltetrahydrofolate-homocysteine S-methyltransferase; 5-methyltetrahydrofolate-homocysteine transmethylase; N-methyltetrahydrofolate:L-homocysteine methyltransferase; N5-methyltetrahydrofolate methyltransferase; N5-methyltetrahydrofolate-homocysteine cobalamin methyltransferase; N5-methyltetrahydrofolic-homocysteine vitamin B12 transmethylase; B12 N5-methyltetrahydrofolate homocysteine methyltransferase; methyltetrahydrofolate-homocysteine vitamin B12 methyltransferase; tetrahydrofolate methyltransferase; tetrahydropteroylglutamate methyltransferase; tetrahydropteroylglutamic methyltransferase; vitamin B12 methyltransferase; cobalamin-dependent methionine synthase; methionine synthase (cobalamin-dependent); MetH

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 2.1.1.13
CAS No.	9033-23-2
Reaction	5-methyltetrahydrofolate + L-homocysteine = tetrahydrofolate + L-methionine
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 ℃.