Creative Enzymes®

(E)-4-hydroxy-3-methylbut-2-enyl-diphosphate synthase (ferredoxin)

Cat. No. EXWM-1096

Lot. No. (See product label)

Introduction

Description	An iron-sulfur protein found in plant chloroplasts and cyanobacteria that contains a [4Fe-4S] cluster. Forms part of an alternative non-mevalonate pathway for isoprenoid biosynthesis. Bacteria have a similar enzyme that uses flavodoxin rather than ferredoxin (cf. EC 1.17.7.3). The enzyme from the plant Arabidopsis thaliana is active with photoreduced 5-deazaflavin but not with flavodoxin.
Synonyms	4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase (ambiguous); (E)-4-hydroxy-3-methylbut-2-en-1-yl-diphosphate:protein-disulfide oxidoreductase (hydrating) (incorrect); (E)-4-hydroxy-3-methylbut-2-enyl diphosphate synthase (ambiguous); gcpE (gene name); ISPG (gene name); (E)-4-hydroxy-3-methylbut-2-enyl-diphosphate synthase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.17.7.1
Reaction	(E)-4-hydroxy-3-methylbut-2-en-1-yl diphosphate + H2O + 2 oxidized ferredoxin = 2-C-methyl-D-erythritol 2,4-cyclodiphosphate + 2 reduced ferredoxin
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 ℃.