Creative Enzymes®

7,8-didemethyl-8-hydroxy-5-deazariboflavin synthase

Cat. No. EXWM-2815

Lot. No. (See product label)

Introduction

Description	Binds a [4Fe-4S] cluster. The cluster is coordinated by 3 cysteines and an exchangeable AdoMet molecule. The first stage of catalysis is reduction of the 2 AdoMet to produce 2 methionine and 2 5'-deoxyadenosin-5-yl radicals that extract a hydrogen from each of the substrates permitting the condensation of the two. The overall reaction catalysed is the transfer of the hydroxybenzyl group from 4-hydroxyphenylpyruvate (HPP) to 5-amino-6-ribitylaminopyrimidine-2,4(1H,3H)-dione to form 7,8-didemethyl-8-hydroxy-5-deazariboflavin (FO). 7,8-Didemethyl-8-hydroxy-5-deazariboflavin is the chromophore of the hydride carrier coenzyme F420.
Synonyms	FO synthase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 2.5.1.77
Reaction	5-amino-6-(D-ribitylamino)uracil + 3-(4-hydroxyphenyl)pyruvate + 2 S-adenosyl-L-methionine + H2O = 7,8-didemethyl-8-hydroxy-5-deazariboflavin + 2 L-methionine + 2 5'-deoxyadenosine + oxalate + NH3
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 ℃.