Creative Enzymes®

pyridoxal 5'-phosphate synthase

Cat. No. EXWM-1482

Lot. No. (See product label)

Introduction

Description	A flavoprotein (FMN). In Escherichia coli, the coenzyme pyridoxal 5'-phosphate is synthesized de novo by a pathway that involves EC 1.2.1.72 (erythrose-4-phosphate dehydrogenase), EC 1.1.1.290 (4-phosphoerythronate dehydrogenase), EC 2.6.1.52 (phosphoserine transaminase), EC 1.1.1.262 (4-hydroxythreonine-4-phosphate dehydrogenase), EC 2.6.99.2 (pyridoxine 5'-phosphate synthase) and EC 1.4.3.5 (with pyridoxine 5'-phosphate as substrate). N4'-Substituted pyridoxamine derivatives are also oxidized in reaction (1) to form pyridoxal 5-phosphateand the corresponding primary amine.
Synonyms	pyridoxamine 5'-phosphate oxidase; pyridoxamine phosphate oxidase; pyridoxine (pyridoxamine)phosphate oxidase; pyridoxine (pyridoxamine) 5'-phosphate oxidase; pyridoxaminephosphate oxidase (EC 1.4.3.5: deaminating); PMP oxidase; pyridoxol-5'-phosphate:oxygen oxidoreductase (deaminating) (incorrect); pyridoxamine-phosphate oxidase; PdxH

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.4.3.5
CAS No.	9029-21-4
Reaction	(1) pyridoxamine 5'-phosphate + H2O + O2 = pyridoxal 5'-phosphate + NH3 + H2O2; (2) pyridoxine 5'-phosphate + O2 = pyridoxal 5'-phosphate + H2O2
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 ℃.