Creative Enzymes®

4-phosphoerythronate dehydrogenase

Cat. No. EXWM-0199

Lot. No. (See product label)

Introduction

Description	This enzyme catalyses a step in a bacterial pathway for the biosynthesis of pyridoxal 5'-phosphate. The enzyme contains a tightly-bound NAD(H) cofactor that is not re-oxidized by free NAD+. In order to re-oxidize the cofactor and restore enzyme activity, the enzyme catalyses the reduction of a 2-oxo acid (such as 2-oxoglutarate, oxaloacetate, or pyruvate) to the respective (R)-hydroxy acid. cf. EC 1.1.1.399, 2-oxoglutarate reductase.
Synonyms	PdxB; PdxB 4PE dehydrogenase; 4-O-phosphoerythronate dehydrogenase; 4PE dehydrogenase; erythronate-4-phosphate dehydrogenase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.1.1.290
CAS No.	125858-75-5
Reaction	4-phospho-D-erythronate + NAD+ = (3R)-3-hydroxy-2-oxo-4-phosphonooxybutanoate + NADH + 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 ℃.