Creative Enzymes®

phenylalanine 4-monooxygenase

Cat. No. EXWM-0953

Lot. No. (See product label)

Introduction

Description	The active centre contains mononuclear iron(II). The reaction involves an arene oxide that rearranges to give the phenolic hydroxy group. This results in the hydrogen at C-4 migrating to C-3 and in part being retained. This process is known as the NIH-shift. The 4a-hydroxytetrahydrobiopterin formed can dehydrate to 6,7-dihydrobiopterin, both spontaneously and by the action of EC 4.2.1.96, 4a-hydroxytetrahydrobiopterin dehydratase. The 6,7-dihydrobiopterin can be enzymically reduced back to tetrahydrobiopterin, by EC 1.5.1.34, 6,7-dihydropteridine reductase, or slowly rearranges into the more stable compound 7,8-dihydrobiopterin.
Synonyms	phenylalaninase; phenylalanine 4-hydroxylase; phenylalanine hydroxylase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.16.1
CAS No.	9029-73-6
Reaction	L-phenylalanine + tetrahydrobiopterin + O2 = L-tyrosine + 4a-hydroxytetrahydrobiopterin
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 ℃.