

## 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 + O<sub>2</sub> = 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 °C for short term. For long term storage, store it at -20 °C~-80 °C.