

tyrosine N-monoxygenase

Cat. No. EXWM-0849

Lot. No. (See product label)

Introduction

Description

A heme-thiolate protein (P-450). This enzyme is involved in the biosynthesis of the cyanogenic glucoside dhurrin in sorghum, along with EC 1.14.13.68, 4-hydroxyphenylacetaldehyde oxime monooxygenase and EC 2.4.1.85, cyanohydrin β -glucosyltransferase. Some 2-(4-hydroxyphenyl)-1-nitroethane is formed as a side product.

Synonyms

tyrosine N-hydroxylase; CYP79A1

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.14.13.41

CAS No.

159447-19-5

Reaction

L-tyrosine + 2 O₂ + 2 NADPH + 2 H⁺ = (Z)-[4-hydroxyphenylacetaldehyde oxime] + 2 NADP⁺ + CO₂ + 3 H₂O (overall reaction); (1a) L-tyrosine + O₂ + NADPH + H⁺ = N-hydroxy-L-tyrosine + NADP⁺ + H₂O; (1b) N-hydroxy-L-tyrosine + O₂ + NADPH + H⁺ = N,N-dihydroxy-L-tyrosine + NADP⁺ + H₂O; (1c) N,N-dihydroxy-L-tyrosine = (Z)-[4-hydroxyphenylacetaldehyde oxime] + CO₂ + H₂O

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.