Creative Enzymes®

cholesterol 24-hydroxylase

Cat. No. EXWM-0922

Lot. No. (See product label)

Introduction

Description	A P-450 heme-thiolate protein. The enzyme can also produce 25-hydroxycholesterol. In addition, it can further hydroxylate the product to 24,25-dihydroxycholesterol and 24,27-dihydroxycholesterol. This reaction is the first step in the enzymic degradation of cholesterol in the brain as hydroxycholesterol can pass the blood-brain barrier whereas cholesterol cannot. The direct electron donor to the enzyme is EC 1.6.2.4, NADPH-hemoprotein reductase.
Synonyms	cholesterol 24-monooxygenase; CYP46; CYP46A1; cholesterol 24S-hydroxylase; cytochrome P450 46A1

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.14.25
CAS No.	50812-30-1, 213327-78-7
Reaction	cholesterol + [reduced NADPH-hemoprotein reductase] + O2 = (24S)-cholest-5-ene-3β,24-diol + [oxidized NADPH-hemoprotein reductase] + 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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.