Creative Enzymes®

microsomal epoxide hydrolase

Cat. No. EXWM-4006

Lot. No. (See product label)

Introduction

Description	This is a key hepatic enzyme that is involved in the metabolism of numerous xenobiotics, such as 1,3-butadiene oxide, styrene oxide and the polycyclic aromatic hydrocarbon benzo[a]pyrene 4,5-oxide. In a series of oxiranes with a lipophilic substituent of sufficient size (styrene oxides), monosubstituted as well as 1,1- and cis-1,2-disubstituted oxiranes serve as substrates or inhibitors of the enzyme. However, trans-1,2-disubstituted, tri-and tetra-substituted oxiranes are not substrates. The reaction involves the formation of an hydroxyalkyl-enzyme intermediate. In vertebrates, five epoxide-hydrolase enzymes have been identified to date: EC 3.3.2.6 (leukotriene-A4 hydrolase), EC 3.3.2.7 (hepoxilin-epoxide hydrolase), EC 3.3.2.9 (microsomal epoxide hydrolase), EC 3.3.2.10 (soluble epoxide hydrolase) and EC 3.3.2.11 (cholesterol-5,6-oxide hydrolase).
Synonyms	epoxide hydratase (ambiguous); microsomal epoxide hydratase (ambiguous); epoxide hydrase; microsomal epoxide hydrase; arene-oxide hydratase (ambiguous); benzo[a]pyrene-4,5-oxide hydratase; benzo(a)pyrene-4,5-epoxide hydratase; aryl epoxide hydrase (ambiguous); cis-epoxide hydrolase; mEH

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 3.3.2.9
Reaction	cis-stilbene oxide + H2O = (+)-(1R,2R)-1,2-diphenylethane-1,2-diol
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 ℃.