Creative Enzymes®

soluble epoxide hydrolase

Cat. No. EXWM-3995

Lot. No. (See product label)

Introduction

Description	Catalyses the hydrolysis of trans-substituted epoxides, such as trans-stilbene oxide, as well as various aliphatic epoxides derived from fatty-acid metabolism. It is involved in the metabolism of arachidonic epoxides (epoxyicosatrienoic acids; EETs) and linoleic acid epoxides. The EETs, which are endogenous chemical mediators, act at the vascular, renal and cardiac levels to regulate blood pressure. The enzyme from mammals is a bifunctional enzyme: the C-terminal domain exhibits epoxide-hydrolase activity and the N-terminal domain has the activity of EC 3.1.3.76, lipid-phosphate phosphatase. Like EC 3.3.2.9, microsomal epoxide hydrolase, it is probable that the reaction involves the formation of an hydroxyalkyl-enzyme intermediate. The enzyme can also use leukotriene A4, the substrate of EC 3.3.2.6, leukotriene-A4 hydrolase, but it forms 5,6-dihydroxy-7,9,11,14-icosatetraenoic acid rather than leukotriene B4 as the product. 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 hydrase (ambiguous); epoxide hydratase (ambiguous); arene-oxide hydratase (ambiguous); aryl epoxide hydrase (ambiguous); trans-stilbene oxide hydrolase; sEH; cytosolic epoxide hydrolase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 3.3.2.10
CAS No.	9048-63-9
Reaction	an epoxide + H2O = a glycol
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 ℃.