

EPHX2 Protein, Human (sf9, His)

Cat. No.:	HY-P75227
Synonyms:	Bifunctional epoxide hydrolase 2; CEH; Epoxide hydratase; SHE; EPHX2
Species:	Human
Source:	Sf9 insect cells
Accession:	P34913 (M1-M555)
Gene ID:	2053
Molecular Weight:	Approximately 65 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of 20 mM Tris, 500 mM NaCl, 10% Glycerol, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The EPHX2 protein is a bifunctional enzyme with distinct activities in its C-terminal and N-terminal domains. The C-terminal domain exhibits epoxide hydrolase activity, acting on both alkene oxides and arene oxides. This functionality plays a crucial role in xenobiotic metabolism by degrading potentially toxic epoxides and contributes to determining steady-state levels of physiological mediators. On the other hand, the N-terminal domain of EPHX2 possesses lipid phosphatase activity, displaying the highest activity towards threo-9,10-phosphonoxy-hydroxy-octadecanoic acid, followed by erythro-9,10-phosphonoxy-hydroxy-octadecanoic acid, 12-phosphonoxy-octadec-9Z-enoic acid, and 12-phosphonoxy-octadec-9E-enoic acid. Additionally, it exhibits phosphatase activity toward lyso-glycerophospholipids, with some lower activity observed toward lysolipids of sphingolipid and isoprenoid phosphates. These multifaceted enzymatic activities highlight the diverse roles of EPHX2 in cellular processes, including xenobiotic metabolism and lipid homeostasis.

Caution: Product has not been fully validated for medical applications. For research use only.

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