

EPHX1 Protein, Human (His-SUMO)

Cat. No.:	HY-P72184
Synonyms:	EPHX 1; EPHX; Ephx1; EPOX; Epoxide hydratase; Epoxide hydrolase 1; Epoxide hydrolase 1 microsomal xenobiotic; ; Epoxide hydroxylase 1; Epoxide hydroxylase 1 microsomal xenobiotic; ; HYEP_HUMAN; HYL1; MEH; Microsomal epoxide hydrolase
Species:	Human
Source:	E. coli
Accession:	P07099 (M1-Q455)
Gene ID:	2052
Molecular Weight:	Approximately 66 kDa

PROPERTIES

AA Sequence

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MWLEIILLTSV   LGFAIYWFIS   RDKEETLPLE   DGWWGPGTRS
AAREDDSI RP   FKVETSDEEI   HDLHQRIDKF   RFTPPLEDSC
FHYGFNSNYL   KKVISYWRNE   FDWKKQVEIL   NRYPHFKTKI
EGLDIHFIHV   KPPQLPAGHT   PKPLLMVHGW   PGSFYEFYKI
IPLLTDPKNH   GLSDEHVFEV   ICPSIPGYGF   SEASSKKGFN
SVATARIFYK   LMLRLGFQEF   YIQGGDWGSL   ICTNMAQLVP
SHVKGHLHLMN   ALVLSNFSTL   TLLLGQRFGR   FLGLTERDVE
LLYPVKEKVF   YSLMRESGYM   HIQCTKPDTV   GSALNDSPVG
LAAYILEKFS   TWTNTEFRYL   EDGGLERKFS   LDDLLTNVML
YWTTGTIIS   QRFYKENLGQ   GWMTQKHERM   KVVVPTGFSA
FPFELLHTPE   KWVRFKYPKL   ISYSYMRGG   HFAAFEEPEL
LAQDIRKFLS   VLERQ
  
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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 µm solution of 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/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 EPHX1 protein serves as a crucial biotransformation enzyme, facilitating the hydrolysis of both arene and aliphatic epoxides. Through the trans addition of water, EPHX1 catalyzes this transformation, rendering the epoxides less reactive and more water-soluble. Beyond its role in xenobiotic metabolism, EPHX1 plays a significant role in the metabolic pathways of endogenous lipids, particularly in the processing of epoxide-containing fatty acids. Notably, EPHX1 participates in the metabolism of the abundant endocannabinoid 2-arachidonoylglycerol (2-AG), converting it into free arachidonic acid (AA) and glycerol. These enzymatic activities highlight the versatile role of EPHX1 in modulating the bioavailability and reactivity of various substrates, contributing to essential cellular processes and lipid metabolism.

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

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