HPSE Protein, Rat (His-Myc)

Cat. No.:	HY-P72235
Synonyms:	Hpse; HepHeparanase; EC 3.2.1.166; Endo-glucoronidase; Heparanase 8 kDa subunit; Heparanase 50 kDa subunit
Species:	Rat
Source:	E. coli
Accession:	Q71RP1 (K29-E102)
Gene ID:	64537
Molecular Weight:	Approximately 15.8 kDa

PROPERTIES

AA Sequence	K D V V D L E F Y T K R L F Q S V S P S F L S I T I D A S L A T D P R F L T F L G S P R L R A L A R G L S P A Y L R F G G T K T D F L I F D P N K E
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.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	HPSE Protein functions as an endoglycosidase, playing a crucial role in the cleavage of heparan sulfate proteoglycans (HSPGs) into heparan sulfate side chains and core proteoglycans. This enzymatic activity contributes to extracellular matrix (ECM) degradation and remodeling, selectively cleaving linkages within glucuronic acid units and N-sulfo glucosamine units carrying specific sulfation patterns. While predominantly inactive at neutral pH, HPSE becomes active under acidic conditions, such as during tumor invasion and inflammatory processes. This protein is implicated in various cellular processes, including facilitating cell migration associated with metastasis, wound healing, and inflammation. It enhances shedding of syndecans, promotes endothelial invasion and angiogenesis in myelomas, and acts as a procoagulant by increasing the generation of activation factor X in the presence of tissue factor and activation factor VII. Notably, HPSE also plays a role in cell adhesion to the ECM, independent of its enzymatic activity, and induces AKT1/PKB phosphorylation,

thereby increasing cell mobility and invasion. Additionally, HPSE is involved in the regulation of osteogenesis, promotes angiogenesis through up-regulation of SRC-mediated activation of VEGF, and is implicated in hair follicle inner root sheath differentiation and hair homeostasis.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA