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Datasheet for ABIN7505751

HPSE Protein (AA 1-535) (His tag)



Overview

Quantity:	100 μg
Target:	HPSE
Protein Characteristics:	AA 1-535
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This HPSE protein is labelled with His tag.

Product Details

Sequence:	Met1-Ile535
Characteristics:	A DNA sequence encoding the Mouse HPA protein (Q6YGZ1) (Met1-Ile535) was expressed with a C-His.
Purity:	> 95 % as determined by reducing SDS-PAGE.

Target Details

Target:	HPSE	
Alternative Name:	Heparanase (HPSE Products)	
Background:	Abbreviation: Heparanase,HPA	
	Target Synonym: Heparanase,EC 3.2.1.166,Endo-glucoronidase,Hpse,Hpa	
	Background: Heparanase (HPSE) selectively cleaves heparan sulfate (HS) at specific sites on	
	HS proteoglycans (HSPGs). The enzyme is synthesized as an inactive 65 kDa proenzyme that is	

secreted via the Golgi apparatus and associates with the cell membrane through interaction with HSPGs. It is then endocytosed and transferred to lysosomes where cathepsin L activates it by removing an internal inhibitory peptide, forming a heterodimer composed of an 8 kDa and a 50 kDa subunit. Under certain stimuli, the active enzyme is transferred back to the cell surface, where it participates in extracellular matrix degradation and remodeling. HPSE facilitates cell migration associated with metastasis, wound healing and inflammation. An increase in its activity is associated with an increase in VEGF activity, which further enhances angiogenesis. HPSE also enhances shedding of syndecans and increases endothelial invasion and angiogenesis in myelomas. It acts as a procoagulant by increasing the generation of activation factor X in the presence of tissue factor and activation factor VII. In addition, it increases cell adhesion to the extracellular matrix (ECM), independent of its enzymatic activity. HPSE is highly expressed in placenta and spleen and weakly expressed in lymph node, thymus, peripheral blood leukocytes, bone marrow, endothelial cells, fetal liver and tumor tissues. Mouse HPSE shows 76 % identity to human HPSE at amino acid sequence. The enzyme activity of recombinant mouse HPSE was assayed using recombinant syndecan 4 that was biotinylated at the non-reducing end of its HS chains in ELISA format.

Molecular Weight:

Calculated MW: 58.74 kDa

Observed MW: 70 kDa

UniProt:

Q6YGZ1

Pathways:

Glycosaminoglycan Metabolic Process

Application Details

Restrictions:

For Research Use only

Handling

Format:	Lyophilized
Buffer:	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization.
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

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Expiry Date:

12 months