

Heparanase Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1631a**Specification**

Heparanase Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q9Y251](#)**Heparanase Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 10855**Other Names**

Heparanase, Endo-glucuronidase, Heparanase-1, Hpa1, Heparanase 8 kDa subunit, Heparanase 50 kDa subunit, HPSE, HEP, HPA, HPA1, HPR1, HPSE1, HSE1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1631a](/product/products/AP1631a) was selected from the N-term region of human Heparanase. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Heparanase Antibody (N-term) Blocking Peptide - Protein Information**Name** HPSE**Synonyms** HEP, HPA, HPA1, HPR1, HPSE1, HSE1**Function**

Endoglycosidase that cleaves heparan sulfate proteoglycans (HSPGs) into heparan sulfate side chains and core proteoglycans. Participates in extracellular matrix (ECM) degradation and remodeling. Selectively cleaves the linkage between a glucuronic acid unit and an N-sulfo glucosamine unit carrying either a 3-O-sulfo or a 6-O-sulfo group. Can also cleave the linkage between a glucuronic acid unit and an N-sulfo glucosamine unit carrying a 2-O-sulfo group, but not linkages between a glucuronic acid unit and a 2-O-sulfated iduronic acid moiety. It is essentially inactive at neutral pH but becomes active under acidic conditions such as during tumor invasion and in inflammatory processes. Facilitates cell migration associated with metastasis, wound healing and inflammation. Enhances shedding of syndecans, and increases endothelial invasion

and angiogenesis in myelomas. Acts as a procoagulant by increasing the generation of activation factor X in the presence of tissue factor and activation factor VII. Increases cell adhesion to the extracellular matrix (ECM), independent of its enzymatic activity. Induces AKT1/PKB phosphorylation via lipid rafts increasing cell mobility and invasion. Heparin increases this AKT1/PKB activation. Regulates osteogenesis. Enhances angiogenesis through up-regulation of SRC-mediated activation of VEGF. Implicated in hair follicle inner root sheath differentiation and hair homeostasis.

Cellular Location

Lysosome membrane; Peripheral membrane protein. Secreted. Nucleus. Note=Proheparanase is secreted via vesicles of the Golgi. Interacts with cell membrane heparan sulfate proteoglycans (HSPGs). Endocytosed and accumulates in endosomes. Transferred to lysosomes where it is proteolytically cleaved to produce the active enzyme. Under certain stimuli, transferred to the cell surface Associates with lipid rafts. Colocalizes with SDC1 in endosomal/lysosomal vesicles. Accumulates in perinuclear lysosomal vesicles. Heparin retains proheparanase in the extracellular medium (By similarity).

Tissue Location

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. Also expressed in hair follicles, specifically in both Henle's and Huxley's layers of inner the root sheath (IRS) at anagen phase

Heparanase Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Heparanase Antibody (N-term) Blocking Peptide - Images

Heparanase Antibody (N-term) Blocking Peptide - Background

FUNCTION: Heparanase, a cell surface and extracellular matrix-degrading enzyme cleaves heparan sulfate proteoglycans (HSPGs) into heparan sulfate side chains and core proteoglycans. This enzyme is also implicated in the extravasation of leukocytes and tumor cell lines. Due to its contribution to metastasis and angiogenesis, it is considered to be a potential target for anti-cancer therapies.**ENZYME REGULATION:** Inhibited by EDTA, laminarin sulfate and, to a lower extent, by heparin and sulfamin and activated by calcium and magnesium.**TISSUE SPECIFICITY:** 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.

Heparanase Antibody (N-term) Blocking Peptide - References

Chen, G., et al., Biochemistry 43(17):4971-4977 (2004).Sotnikov, I., et al., J. Immunol. 172(9):5185-5193 (2004).Schubert, S.Y., et al., Lab. Invest. 84(5):535-544 (2004).Chen, J.Q., et al., World J. Gastroenterol. 10(6):776-782 (2004).Yan, Y., et al., Zhonghua Er Ke Za Zhi 42(3):199-201 (2004).