



Polyclonal Anti-Heparanase (Sepharose Bead Conjugate)

Catalogue No. PA1223-S

Lot No. 10F02

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Human, mouse, rat. No cross reactivity with other proteins.

Recommended application

(Immunoprecipitation(IP))

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminal of human Heparanase, identical to the related rat and mouse sequence.

Purification

Immunogen affinity purified.

Formulation

50% slurry in PBS pH 7.2 with 0.01mg NaN₃ preservative.

Storage

Store at 4°C for frequent use.

Description:

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

BACKGROUND

Heparanase, also known as HPSE, is an enzyme that acts both at the cell-surface and within the extracellular matrix to degrade polymeric heparan sulfate molecules into shorter chain length oligosaccharides.^{1,2} Heparanase is an endo-beta-D-glucuronidase capable of cleaving heparan sulfate and has been implicated in inflammation and tumor angiogenesis and metastasis.³ The successful penetration of the endothelial cell layer that lines the interior surface of blood vessels is an important process in the formation of blood borne tumour metastases. Heparan sulfate proteoglycans are major constituents of this layer and it has been shown that increased metastatic potential corresponds with increased heparanase activity for a number of cell lines.^{4,5}

REFERENCE

1. Vlodayvsky I, Friedmann Y, Elkin M, Aingorn H, Atzmon R, Ishai-Michaeli R, Bitan M, Pappo O, Peretz T, Michal I, Spector L, Pecker I (July 1999), "Mammalian heparanase: gene cloning, expression and function in tumor progression and metastasis", *Nature medicine* 5 (7): 793–802.
2. Hulett MD, Freeman C, Hamdorf BJ, Baker RT, Harris MJ, Parish CR (July 1999), "Cloning of mammalian heparanase, an important enzyme in tumor invasion and metastasis", *Nature medicine* 5 (7): 803–9.
3. Toyoshima, M.; Nakajima, M. : Human heparanase: purification, characterization, cloning, and expression. *J. Biol. Chem.* 274: 24153-24160, 1999.
4. Nakajima M, Irimura T, Nicolson GL. (1988), "Heparanases and tumor metastasis", *J. Cell. Biochem.* 36 (2): 157–167.
5. Vlodayvsky I, Goldshmidt O, Zcharia E, *et al.* (2003), "Mammalian heparanase: involvement in cancer metastasis, angiogenesis and normal development.", *Semin. Cancer Biol.* 12 (2): 121–9.

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