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32-6806: HPSE Active

Application : Functional Assay

Description

Heparanase is an endo Beta-D-glucuronidase, which degrades heparan sulfate side chains of heparan sulfate proteoglycans (HSPGs) in the extracellular matrix. Heparanase plays an important role in ECM degradation, facilitating the migration and extravasation of tumor cells and inflammatory leukocytes (1,2,3). Upon degradation, heparanase releases growth factors and cytokines that stimulate cell proliferation and chemotaxis (4,5). Heparanase is a heterodimer comprised of a 50 kDa subunit harboring the active site and a 8 kDa subunit. It is produced as a latent 65 kDa precursor and proteolytically processed to its active form (1,6). Heparanase is highly expressed in myeloid leukocytes (i.e. neutrophils) in platelets and in human placenta. Human heparanase was found to be upregulated in various types of primary tumors, correlating in some cases with increased tumor invasiveness and vascularity and with poor prospective survival (7,8).
Heparanase Active EnzymeÂ is produced in CHO cells.The protein is purified by several orthogonal chromatography steps.

Product Info

Amount :	1 µg / 4 µg
Purification :	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Content :	Heparanase Active Enzyme is supplied in20mM Acetate buffer and 750mM NaCl pH 5.4.
Storage condition :	Store at -80°C , avoid repeated freeze-thaw cycles.

Application Note

The specific activity of Heparanase Active EnzymeÃÂ in-house standard is about 0.7ÃÂ Units (1 unit = 1 ÃÂµmole of reducing ends of heparan sulfateÃÂ substrate formed per minute per mg Heparanase Active EnzymeÃÂ at 37ÃÂ°C). TheÃÂ enzymatic activity of each Heparanase Active EnzymeÃÂ batch is comparable to theÃÂ standard as determined by activity assay in which immobilizedÃÂ heparan, released due to heparanase activity, is quantifiedÃÂ colorimetrically. Recommended reaction buffer: 20 mM CitrateÃÂ Phosphate buffer, pH 5.4; 50mM NaCl; 1mM CaCl2.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.