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**Antibody to Human Heparanase 1 (HPA1)**  
RABBIT POLYCLONAL

**Catalog Number:** AB-478  
**Quantity:** 290 micrograms, 570 micrograms  
**Format:** 20mM Sodium Phosphate, 150 mM NaCl, pH 7.2, containing 0.01% Thimerosal  
**Host:** Rabbit

**Background:**

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. Upon degradation, heparanase releases growth factors and cytokines that stimulate cell proliferation and chemotaxis. 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. 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.

**Specificity and Preparation:**

Polyclonal rabbit anti-human HPA1 is a Protein G affinity-purified polyclonal antibody raised against the 50 kDa-8 kDa Heparanase heterodimer. In western blot analysis, the antibody reacts with the 65 kDa precursor as well as the 50 kDa and 8 kDa subunits of human or mouse Heparanase. In immunohistochemistry, the antibody interacts with Heparanase in paraffin sections and blood smears.

**Usage and Storage:**

Applications include immunoblotting (western blot, 1:2000) and immunohistochemistry (1:100). Working dilutions must be determined by end user. Store at 4°C. For extended storage, freeze in working aliquots at -20°C. Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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