
Monoclonal Anti-Human Heparanase 1 (HPA1) Antibody

Clone HP3/17

BACKGROUND

Heparanase is an endo- β -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).

SOURCE

Mab HP3/17 is a Protein G affinity purified monoclonal antibody raised against a polypeptide from the 50 kDa subunit of Heparanase.

Ig CLASS

Mouse IgG_{2Bk}

PRODUCT

Each vial contains 50, 100 or 150 μ g in 12.5, 25 or 37.5 μ l respectively, of 0.22 micron filtered solution of 20 mM Sodium Phosphate; 150 mM NaCl; pH 7.2, containing 0.001% Thimerosal.

APPLICATIONS

Western blot
Immunohistochemistry

SPECIFICITY

HP3/17 reacts with the 50 kDa subunit and with the 65 kDa precursor of human or mouse Heparanase by Western blotting and immunohistochemistry.

Recommended dilution range for Western blot analysis: 1:4000.

Recommended dilution range for immunohistochemistry: 1:40.

PURITY

>98% on SDS-PAGE when loaded 50 μ g/lane.

STORAGE

Store at 4°C. Stable for six months from the date of shipment. For extended storage, freeze in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

RESEARCH USE

For *in vitro* research use only. Not for use in diagnostic procedures.

PATENTS

Anti-heparanase antibodies and their uses, including HP3/17 and its uses, are protected by US. Patents No. 6,177,545; 6,531,129, additional US patent applications and patents and patent applications worldwide.

REFERENCES

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