

Anti-Heparanase 1/HPSE Antibody Picoband™

Catalog Number: PB9427

About HPSE

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. Heparanase is an endo-beta-D-glucuronidase capable of cleaving heparan sulfate and has been implicated in inflammation and tumor angiogenesis and metastasis. 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.

Overview

Product Name	Anti-Heparanase 1/HPSE Antibody Picoband™
Reactive Species	Human, Rat
Description	Boster Bio Anti-Heparanase 1/HPSE Antibody Picoband™ catalog # PB9427. Tested in WB applications. This antibody reacts with Human, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9Y251

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Heparanase 1, different from the related mouse and rat sequences by eight amino acids.
Predicted Reactive Species	Bovine, Canine, Hamster, Monkey, Rabbit
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Rat

Anti-Heparanase 1/HPSE Antibody Picoband™ (PB9427) Images

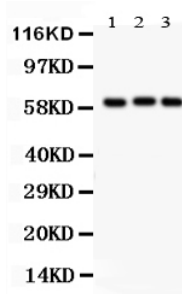


Figure 1. Western blot analysis of Heparanase 1 using anti-Heparanase 1 antibody (PB9427). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: Rat Liver Tissue Lysate at 50ug, Lane 2: Human Placenta Tissue Lysate at 50ug, Lane 3: A549 Whole Cell Lysate at 40ug. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Heparanase 1 antigen affinity purified polyclonal antibody (Catalog # PB9427) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Heparanase 1 at approximately 61 kDa. The expected band size for Heparanase 1 is at 61 kDa.

5 Publications Citing This Product

1. PubMed ID: 10.1016/j.carbpol.2018.10.071, Polymeric fluorescent heparin as one-step FRET substrate of human heparanase
2. PubMed ID: 34112915, Noda K, Philips BJ, Snyder ME, Phillippi JA, Sullivan M, Stolz DB, Ren X, Luketich JD, Sanchez PG. Heparanase inhibition preserves the endothelial glycocalyx in lung grafts and improves lung preservation and transplant outcomes. Sci Rep. 2021 Jun 10;11(1):12265. doi:10.1038/s41598-021-91777-0. PMID:34112915.
3. PubMed ID: 24235832, Inhibition of choriocarcinoma by Fe3O4-dextran-anti-?-human chorionic gonadotropin nanoparticles containing antisense oligodeoxynucleotide of heparanase

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