

Anti-MMP7 Antibody Picoband®

Catalog Number: PB9037

About MMP7

Matrix metalloproteinase-7 (MMP-7) previously called putative metalloproteinase I (PUMP1) or matrilysin. The MMP-7 gene has been identified through studies of collagenase-related connective-tissue-degrading metalloproteinases produced by human tumors. The MMP-7 protein has 267 amino acids and is significantly shorter than stromelysin or collagenase (477 and 469 amino acids, respectively). Matrix metalloproteinases play a crucial role in tumor invasion and metastasis. MMP-7, a member of the matrix metalloproteinase family, is structurally different from the other matrix metalloproteinases by virtue of the absence of a conserved COOH-terminal protein domain. In addition, MMP-7 mRNA is regulated in a specific and distinct manner in normal and malignant tissues. MMP-7 has been shown to correlate with nodal or distant metastasis in colorectal carcinomas, however, its implication in early invasive colorectal carcinomas has not been determined. MMP-7 is also a mediator of pulmonary fibrosis and a potential therapeutic target. The standard product used in this kit is recombinant human MMP-7, consisting of 250 amino acids with the molecular mass of 28KDa. The detected MMP-7 includes zymogen and active enzyme.

Overview

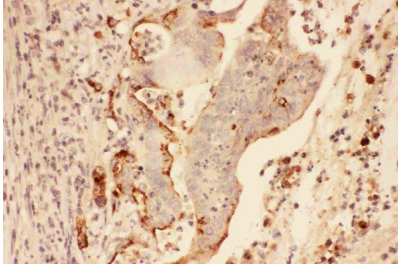
Product Name	Anti-MMP7 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-MMP7 Antibody Picoband® catalog # PB9037. Tested in ELISA, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P09237

Technical Details

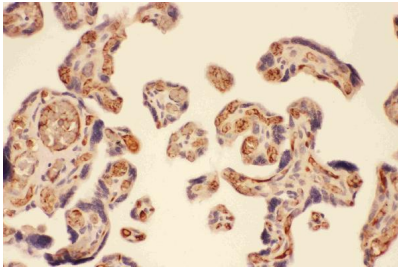
Immunogen	E.coli-derived human MMP7 recombinant protein (Position: M1-K267). Human MMP7 shares 71%
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	amino acid (aa) sequence identity with both mouse and rat MMP7.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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	ELISA, 0.1-0.5ug/ml, - Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human

Anti-MMP7 Antibody Picoband® (PB9037) Images



IHC analysis of MMP7 using anti-MMP7 antibody (PB9037). MMP7 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MMP7 Antibody (PB9037) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of MMP7 using anti-MMP7 antibody (PB9037). MMP7 was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MMP7 Antibody (PB9037) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Western blot analysis of MMP7 using anti-MMP7 antibody (PB9037). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: A549 Whole Cell Lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-MMP7 antigen affinity purified polyclonal antibody (Catalog # PB9037) 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 1:10000 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 MMP7 at approximately 30KD. The expected band size for MMP7 is at 30KD.

12 Publications Citing This Product

1. PubMed ID: 10.3892/or.2015.4502, MicroRNA-148a inhibits breast cancer migration and invasion by directly targeting WNT-1
2. PubMed ID: 10.3892/or_00001069, Effects of shRNA targeting maspin on invasion of gastric carcinoma SGC7901 cell line
3. PubMed ID: 10.1111/jphp.12402, Shikonin inhibits the cell viability, adhesion, invasion and migration of the human gastric cancer cell line MGC803 via the Toll-like receptor 2/nuclear factor- κ B pathway

Visit bosterbio.com/anti-mmp7-picoband-trade-antibody-pb9037-boster.html to see all 12 publications.

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Anti-MMP7 Antibody

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