BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

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.

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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 Na2HPO4, and 0.05 mg NaN3. *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

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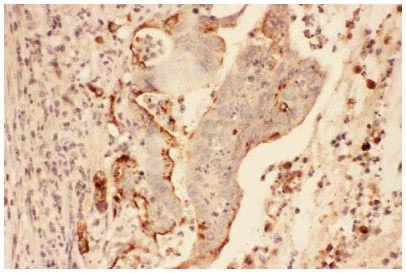
Uniprot ID	P09237

Technical Details

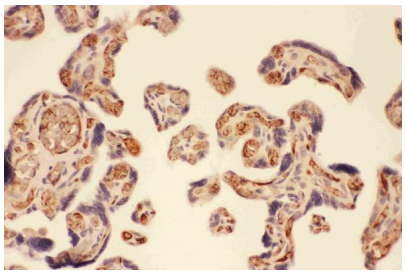
Immunogen	E.coli-derived human MMP7 recombinant protein (Position: M1-K267). Human MMP7 shares 71% amino acid (aa) sequence identity with both mouse and rat MMP7.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated 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

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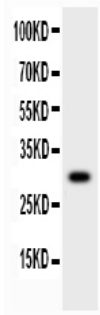
Anti-MMP7 Antibody Picoband® (PB9037) Images



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 Strepavidin-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 Strepavidin-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: 10.1007/s12032-008-9057-z, Matrilysin inhibits proliferation and modulates sensitivity of lung cancer cells to FasL-mediated apoptosis

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Anti-MMP7 Antibody

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