

Anti-MMP7 Antibody Picoband®

Catalog Number: PB9038

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

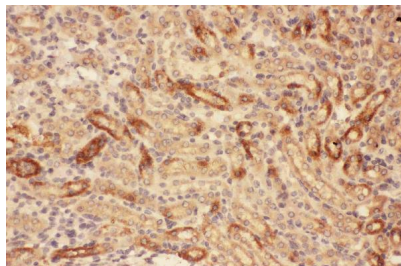
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| Product Name | Anti-MMP7 Antibody Picoband® |
| Reactive Species | Mouse, Rat |
| Description | Boster Bio Anti-MMP7 Antibody Picoband® catalog # PB9038. Tested in ELISA, IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband 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 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ . |
| 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 | Q10738 |

Technical Details

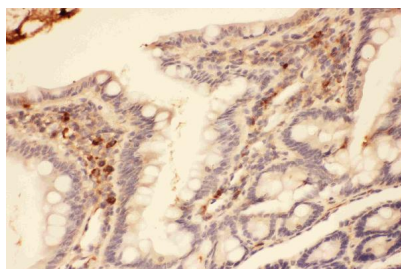
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| Immunogen | E.coli-derived mouse MMP7 recombinant protein (Position: Y95-L264). Mouse MMP7 shares 71% and 90% amino acid (aa) sequences identity with human and rat MMP7, respectively. |
| Recommended Detection Systems | Boster recommends Enhanced 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 |

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| 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, Mouse, Rat Western blot, 0.1-0.5ug/ml, Mouse |

Anti-MMP7 Antibody Picoband® (PB9038) Images



IHC analysis of MMP7 using anti-MMP7 antibody (PB9038). MMP7 was detected in paraffin-embedded section of mouse kidney 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 (PB9038) 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 (PB9038). MMP7 was detected in paraffin-embedded section of rat intestines 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 (PB9038) 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 (PB9038). 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: Rat Brain Tissue 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 # PB9038) 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.

9 Publications Citing This Product

1. PubMed ID: 10.3892/mmr.2016.5148, Herbal medicine Gan β fu β kang downregulates Wnt/Ca²⁺ signaling to attenuate liver fibrogenesis in vitro and in vivo
2. PubMed ID: 21109985, Yang Y, Shi H, Li X, Yi Y. Oncol Rep. 2011 Jan;25(1):259-65. Effects Of Shrna Targeting Maspin On Invasion Of Gastric Carcinoma Sgc7901 Cell Line.

3. PubMed ID: 28656209, Hydrogen sulfide reduced renal tissue fibrosis by regulating autophagy in diabetic rats

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Anti-MMP7 Antibody

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