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Anti-MMP9 Antibody Picoband®

Catalog Number: PB9669

About Mmp9

Matrix metallopeptidase 9 (MMP-9), also known as 92 kDa type IV collagenase, 92 kDa gelatinase or gelatinase B (GELB), is an enzyme that in humans is encoded by the MMP9 gene. Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes. Most MMPs are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. The enzyme encoded by this gene degrades type IV and V collagens. Studies in rhesus monkeys suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow, and murine studies suggest a role in tumor-associated tissue remodeling.

Overview

Product Name	Anti-MMP9 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-MMP9 Antibody Picoband® catalog # PB9669. Tested in 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	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
Uniprot ID	P41245

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse MMP-9, different from the related human sequence by thirteen amino acids, and from the related rat sequence by eight amino acids.

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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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat ELISA , 0.1-0.5ug/ml, Mouse, - Western blot, 0.1-0.5ug/ml, Mouse, Rat

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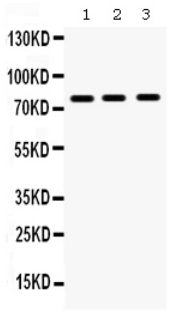
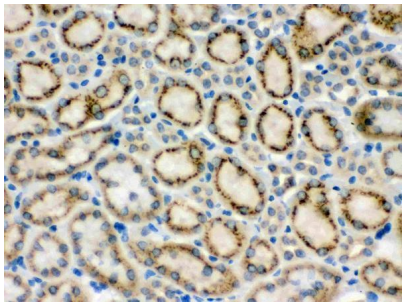
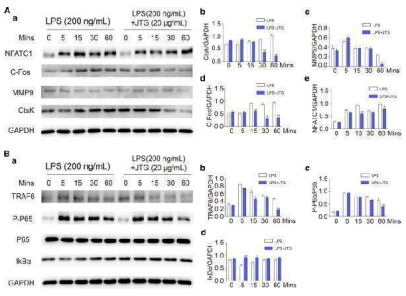
Anti-MMP9 Antibody Picoband® (PB9669) Images



Western blot analysis of MMP-9 using anti-MMP-9 antibody (PB9669). 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 40 ug of sample under reducing conditions. Lane 1: NRK Whole Cell Lysate, Lane 2: ANA-1 Whole Cell Lysate, Lane 3: HEPA Whole Cell Lysate. 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-MMP-9 antigen affinity purified polyclonal antibody (Catalog # PB9669) 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 MMP-9 at approximately 78 kDa. The expected band size for MMP-9 is at 78 kDa.



IHC analysis of MMP-9 using anti-MMP-9 antibody (PB9669). MMP-9 was detected in a paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-MMP-9 Antibody (PB9669) 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.



Effects of JTG on expression of associated proteins and NF-kappaB pathway of osteoclast induced from BMMs with RANKL and LPS. BMMs were incubated with RANKL and JTG for 48 h, the proteins were extracted to analyze associated proteins of osteoclast by Western blot. A : a Western blot imagines for expression of NFATc1, c-Fos, Cathepsin K and MMP9. A : b – e The quantification analysis of NFATc1, c-Fos, Cathepsin K and MMP9 based on the results of A : a by ECL detection system, respectively. B : a The images of Western blot for TRAF6, P-P65, P65 and IkappaBalpha. B : b – d The quantification analysis of TRAF6, P-P65/P65 and IkappaBalpha based on the results of B : a by using an ECL detection system, respectively. Each point represents the mean ± SD (n = 3). The experiments were repeated for three times. * P

Effect of JFS on invasion and metastasis. (A–C) The mRNA levels of MMP-2, MMP-9, and TIMP-1 were detected by qPCR in different groups. (D–G) The protein levels of MMP-2,

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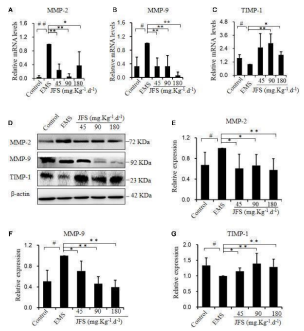
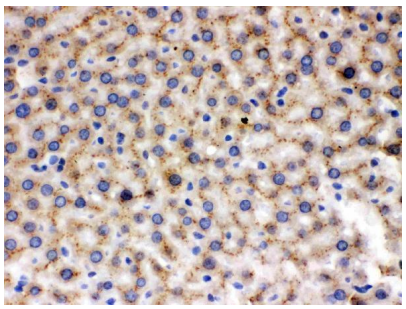


MMP-9, and TIMP-1 were detected by western blotting, and the ratio of MMP-2, MMP-9, and TIMP-1 with beta-actin were shown. # P < 0.05 to control, ## P < 0.01 to control, ∗ P < 0.05 to EMS, ∗∗ P < 0.01 to EMS. Columns, mean (n = 3). Bars, SD. EMS, endometriosis; JFS, Jiawei Foshou San .Index in PubMed under a CC BY license. PMID: 30093862



IHC analysis of MMP-9 using anti-MMP-9 antibody (PB9669). MMP-9 was detected in a paraffin-embedded section of rat liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-MMP-9 Antibody (PB9669) 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.

100 Publications Citing This Product

1. PubMed ID: 10.3892/ol.2016.4619, Fentanyl inhibits the progression of human gastric carcinoma MGC-803 cells by modulating NF-kappaB-dependent gene expression in vivo

2. PubMed ID: 10.1186/s12906-015-0719-z, Effect of Ginkgo biloba extract on experimental cardiac remodeling

3. PubMed ID: 10.3109/08923973.2014.913616, Rapamycin alleviates brain edema after focal cerebral ischemia reperfusion in rats

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Anti-MMP9 Antibody

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