BOSTER BIOLOGICAL TECHNOLOGY
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Anti-MMP8 Antibody Picoband®

Catalog Number: PB9727

About Mmp8

MMP8 (Matrix metalloproteinase 8) is a member of the family of matrix metalloproteinases. It is distinct from the collagenase of skin fibroblasts and synovial cells in substrate specificity and immunologic crossreactivity. MMP8 is mapped to 11q21-q22. MMP8 is an enzyme that degrades fibrillar collagens imparting strength to the fetal membranes, is expressed by leukocytes and chorionic cytotrophoblast cells. The enzyme exhibits 58% homology to human fibroblast collagenase and has the same domain structure. It consists of a 20-residue signal peptide, and an 80-residue propeptide that is lost on autolytic activation by cleavage of an M-L bond. MMP8 was found to possess 57% identity with the deduced protein sequence for fibroblast collagenase with 72% chemical similarity. Matrix metalloproteinases (MMPs) have fundamental roles in tumor progression, but most clinical trials with MMP inhibitors have not shown improvements in individuals with cancer. MMP8 has a paradoxical protective role in cancer and provides a genetic model to evaluate the molecular basis of gender differences in cancer susceptibility.

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Overview

Product Name	Anti-MMP8 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-MMP8 Antibody Picoband® catalog # PB9727. 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 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	O70138

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Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of mouse MMP-8, different from the related human sequence by eleven amino acids, and from the related rat sequence by nine amino acids.
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, - Western blot, 0.1-0.5ug/ml, Mouse, Rat

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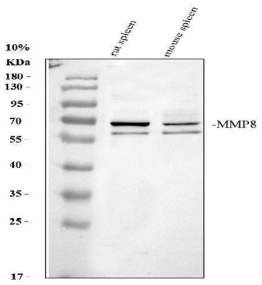
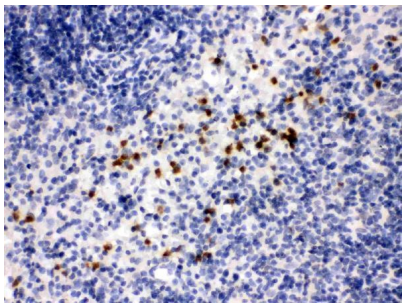
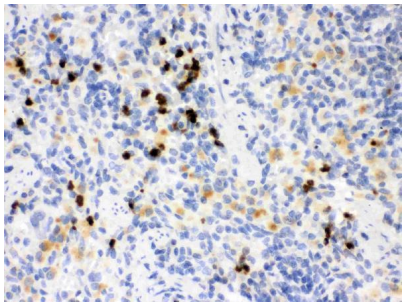
Anti-MMP8 Antibody Picoband® (PB9727) Images



Western blot analysis of MMP8 using anti-MMP8 antibody (PB9727). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat spleen tissue lysates, Lane 2: mouse spleen tissue lysates. 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-MMP8 antigen affinity purified polyclonal antibody (PB9727) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for MMP8 at approximately 55, 70 kDa. The expected band size for MMP8 is at 53 kDa.



IHC analysis of MMP8 using anti-MMP8 antibody (PB9727). MMP8 was detected in paraffin-embedded section of Mouse Spleen 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 1ug/ml rabbit anti-MMP8 Antibody (PB9727) 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 MMP8 using anti-MMP8 antibody (PB9727). MMP8 was detected in paraffin-embedded section of Rat Spleen 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 1ug/ml rabbit anti-MMP8 Antibody (PB9727) 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.

5 Publications Citing This Product

1. PubMed ID: 33468174, Luo S,Li W,Wu W,Shi Q.Elevated expression of MMP8 and MMP9 contributes to diabetic osteoarthritis progression in a rat model.J Orthop Surg Res.2021 Jan 19;16(1):64.doi:10.1186/s13018-021-02208-9.PMID:33468174;P MCID:PMC7814732.

2. PubMed ID: 25289023, Expression of matrix metalloproteinases-8 and -9 and their tissue inhibitor in the condyles of diabetic rats with mandibular advancement

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3. PubMed ID: 29393353, Hydrogen sulfide attenuates myocardial fibrosis in diabetic rats through the JAK/STAT signaling pathway

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Anti-MMP8 Antibody

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