BOSTER
antibody and ELISA experts

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

Anti-MMP1 Antibody Picoband®

Catalog Number: PB9725

About MMP1

Matrix metalloproteinase-1 (MMP-1), also known as interstitial collagenase and fibroblast collagenase, is an enzyme that in humans is encoded by the MMP1 gene. MMP-1 was the first vertebrate collagenase both purified to homogeneity as a protein, and cloned as a cDNA. Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. This gene encodes a secreted enzyme which breaks down the interstitial collagens, types I, II, and III. It is part of a cluster of MMP genes which localize to chromosome 11q22.3. Alternative splicing results in multiple transcript variants.

Overview

Product Name	Anti-MMP1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-MMP1 Antibody Picoband® catalog # PB9725. Tested in 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	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	P03956

Technical Details

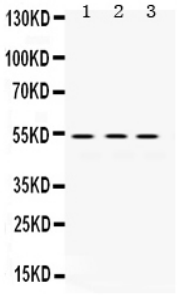
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human MMP1.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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

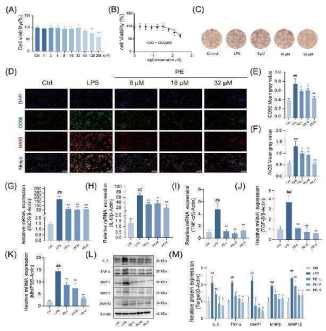
	blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human

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

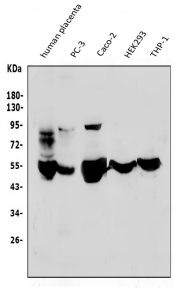
Anti-MMP1 Antibody Picoband® (PB9725) Images



Western blot analysis of MMP1 using anti-MMP1 antibody (PB9725). 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: SMMC Whole Cell Lysate, Lane 2: 22RV1 Whole Cell Lysate, Lane 3: MCF-7 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-MMP1 antigen affinity purified polyclonal antibody (Catalog # PB9725) 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 MMP1 at approximately 54KD. The expected band size for MMP1 is at 54KD.



Nti-inflammatory activity of PE against LPS-Induced M1 polarization in RAW264.7 macrophages. (A) Assessment of RAW264.7 cell viability after PE treatment; (B) Determination of the half-inhibitory concentration of PE on RAW264.7 cells (>200 uM) (n = 6); (C) Changes in cell morphology of RAW264.7 cells stimulated with LPS and treated with PE at concentrations of 8, 16, and 32 uM; (D) Measurement of fluorescence intensity of CD86 and INOS in RAW264.7 cells via immunofluorescence staining; (E,F) Quantification of fluorescence intensity from images (D) ; (G–K) Analysis of gene expression of INOS, IL-6, TNF-alpha, TGF-beta, and MMP3 in RAW264.7 cells after modeling and PE treatment by RT-PCR; (L) Evaluation of protein expression of TNF-alpha, IL-6, MMP1, MMP9, and MMP13 in RAW264.7 cells after modeling and PE treatment; (M) Densitometric analysis of the protein expression shown in image (L) . Data are the mean ± SD of 3 independent experiments. # P < 0.05, ## P < 0.01, vs. Ctrl group; * P < 0.05, ** P < 0.01, vs. LPS group; ns, not significant.Index in PubMed under a CC BY license. PMID: 41230092



Western blot analysis of MMP1 using anti-MMP1 antibody (PB9725). 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: human placenta tissue lysates, Lane 2: human PC-3 whole cell lysates, Lane 3: human Caco-2 whole cell lysates, Lane 4: human HEK293 whole cell lysates, Lane 5: human THP-1 whole cell lysates. 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

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

hour at RT. The membrane was incubated with rabbit anti-MMP1 antigen affinity purified polyclonal antibody (Catalog # PB9725) 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 MMP1 at approximately 54KD. The expected band size for MMP1 is at 54KD.

16 Publications Citing This Product

1. PubMed ID: 10.1016/j.pep.2018.04.001, Efficient protease based purification of recombinant matrix metalloprotease-1 in E. coli

2. PubMed ID: 26550147, Andrographolide plays an important role in bleomycin-induced pulmonary fibrosis treatment

3. PubMed ID: 19930425, Zhang Lf, Ding Wh, Shi Lb, Li K, Haom Yj, Ke Yn, Tang Zs. Clin Exp Pharmacol Physiol. 2010 Apr;37(4):477-81. Doi: 10.1111/J.1440-1681.2009.05336.X. Epub 2009 Nov 23. Effects Of Exogenous Urotensin Ii On Vascular Remodelling After Balloon Injury.

Visit bosterbio.com/anti-mmp1-picoband-trade-antibody-pb9725-boster.html to see all 16 publications.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a $20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.