

Anti-MMP3 Antibody Picoband®

Catalog Number: PB9267

About MMP3

Stromelysin-1, also known as matrix metalloproteinase-3 (MMP-3), is an enzyme that in humans is encoded by the MMP3 gene. It is mapped to 11q22.2. Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix and during tissue remodeling in normal physiological processes, such as embryonic development and reproduction, as well as in disease processes, such as arthritis, and tumor metastasis. The MMP-3 enzyme degrades collagen types II, III, IV, IX, and X, proteoglycans, fibronectin, laminin, and elastin. In addition, MMP-3 can also activate other MMPs such as MMP-1, MMP-7, and MMP-9, rendering MMP-3 crucial in connective tissue remodeling. The enzyme is thought to be involved in wound repair, progression of atherosclerosis, and tumor initiation.

Overview

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| Product Name | Anti-MMP3 Antibody Picoband® |
| Reactive Species | Human |
| Description | Boster Bio Anti-MMP3 Antibody Picoband® catalog # PB9267. 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 Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *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 | P08254 |

Technical Details

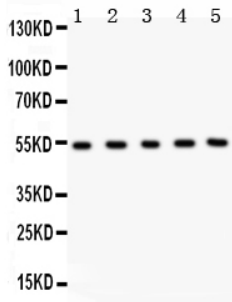
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| Immunogen | A synthetic peptide corresponding to a sequence at the C-terminal of human MMP3, different from the related mouse sequence by seven amino acids, and from the related rat sequence by ten amino acids. |
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| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western 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 |

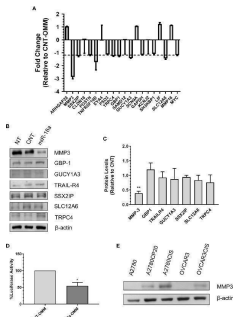
Anti-MMP3 Antibody Picoband® (PB9267) Images



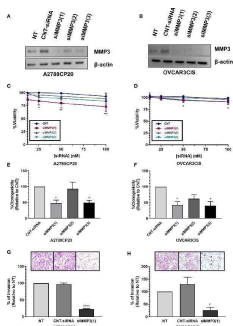
Anti-MMP3 Picoband antibody, PB9267, Western blotting
All lanes: Anti MMP3 (PB9267) at 0.5ug/ml
WB: Recombinant Human MMP3 Protein 0.5ng
Predicted band size: 36KD
Observed band size: 36KD



Anti-MMP3 Picoband antibody, PB9267, Western blotting
All lanes: Anti MMP3 (PB9267) at 0.5ug/ml
Lane 1: Human Placenta Tissue Lysate at 50ug
Lane 2: U2OS Whole Cell Lysate at 40ug
Lane 3: HELA Whole Cell Lysate at 40ug
Lane 4: PANC Whole Cell Lysate at 40ug
Lane 5: COLO320 Whole Cell Lysate at 40ug
Predicted band size: 54KD
Observed band size: 54KD



Identification of miR-18a target genes in cisplatin-resistant ovarian cancer. (A) qRT-PCR was performed with total RNA extracted from miR-18a-OMM or CNT-OMM transfected A2780CP20 cells. Rq (relative expression) values were calculated relative to CNT-OMM samples. (B) Western blot analysis was performed with protein extracts (50 μ g) of OMM transfected cells. (C) Densitometric analysis of band intensities was performed and relative values were calculated using the intensity of beta-actin as control (**P < 0.01). (D) Dual - luciferase assay was performed to assess the binding of miR-18a to the 3'UTR region of MMP-3. Experiments were performed in triplicates. Mean \pm SEM is shown (*P < 0.05). (E) Western blot analysis was conducted for MMP-3 with protein extracts of ovarian cancer cell lines. Index in PubMed under a CC BY license. PMID: 33392094



Effect of MMP-3 silencing on cell viability, cell growth and invasion. MMP-3 silencing in (A) A2780CP20 and (B) OVCAR3CIS was assessed by Western blot analysis of cells collected 24 h after transfection with siRNAs. Cell viability was assessed in (C) A2780CP20 and (D) OVCAR3CIS with AlamarBlue dye 72 h after siRNA transfection (*P < 0.05, **P < 0.01). Colony formation assay was performed after siRNA transfection in (E) A2780CP20 and (F) OVCAR3CIS. % of clonogenicity was calculated relative to CNT-siRNA-transfected cells (*P < 0.05). Invasion assay was performed after siRNA (25 nM siRNA, final concentration) transfection in (G) A2780CP20 and (H) OVCAR3CIS cells. Untransfected cells were taken as 100% invasion. Images of invaded cells were

taken with a light microscope on 20X magnification lenses.
Mean \pm SEM is shown as a result of three independent
experiments (*P < 0.05, ****P < 0.0001).Index in PubMed
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11 Publications Citing This Product

1. PubMed ID: 23555779, Vitiligo: A Possible Model of Degenerative Diseases

2. PubMed ID: 15953993, Zhu L, Wei W, Zheng Yq, Jia Xy. Inflamm Res. 2005 May;54(5):211-20. Effects And Mechanisms Of Total Glucosides Of Paeony On Joint Damage In Rat Collagen-Induced Arthritis.

3. PubMed ID: 25517994, Xu Y, Zhang Ja, Xu Y, Guo Si, Wang S, Wu D, Wang Y, Luo D, Zhou Br. Stem Cells Dev. 2015 May 1;24(9):1096-111. Doi: 10.1089/Scd.2014.0321. Epub 2015 Jan 21. Antiphotaging Effect Of Conditioned Medium Of Dedifferentiated Adipocytes On Skin In Vivo...

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Anti-MMP3 Antibody

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