BOSTER BIOLOGICAL TECHNOLOGY
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Anti-MMP16 Antibody Picoband®

Catalog Number: A05065

About MMP16

The matrix metalloproteinase 16 (MMP16) protein consists of 604 amino acids and has a characteristic MMP domain structure, which gene is mapped on human chromosome 8q21. Additionally, MMP16 has a C-terminal extension containing a potential transmembrane domain, similar to MMP14, MMP15, and MMP17. Furthermore, it is membrane-bound and is a member of the membrane-type MMPs that are a subclass in the MMP family since the other members lack a C-terminal transmembrane domain and are secreted as soluble forms. MMP16 is expressed as a 12-kb transcript in brain, placenta, heart, and some carcinoma cell lines, but is not detectably expressed in lung, kidney, liver, spleen, and muscle.

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Overview

Product Name	Anti-MMP16 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MMP16 Antibody Picoband® catalog # A05065. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, 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, Flow Cytometry, IF, IHC, ICC, 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	P51512

Technical Details

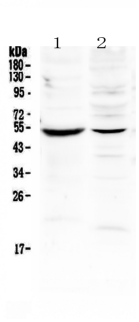
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antibody and ELISA experts

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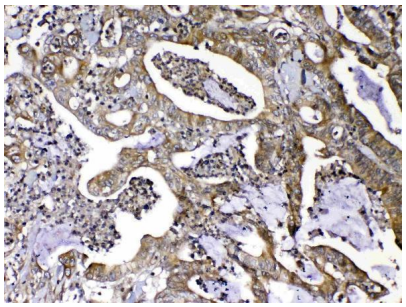
Immunogen	E. coli-derived human MMP16 recombinant protein (Position: Y120-I296).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross 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 Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunocytochemistry/Immunofluorescence, 2ug/ml Flow Cytometry (Fixed), 1-3ug/1x10^6 cells ELISA, 0.1-0.5ug/ml Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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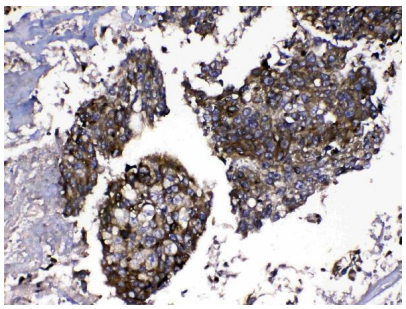
Anti-MMP16 Antibody Picoband® (A05065) Images



Western blot analysis of MMP16 using anti-MMP16 antibody (A05065). 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: mouse intestine tissue lysates,Lane 2: human SMMC-7721 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 hour at RT. The membrane was incubated with rabbit anti-MMP16 antigen affinity purified polyclonal antibody (Catalog # A05065) at 0.5 ug/mL overnight at 4 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 MMP16 at approximately 53KD. The expected band size for MMP16 is at 53KD.



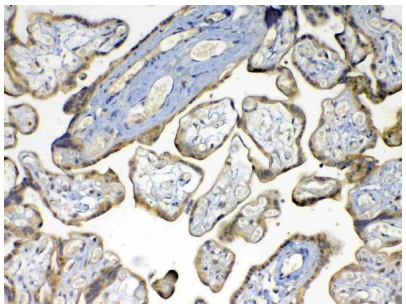
IHC analysis of MMP16 using anti-MMP16 antibody (A05065).MMP16 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MMP16 Antibody (A05065) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



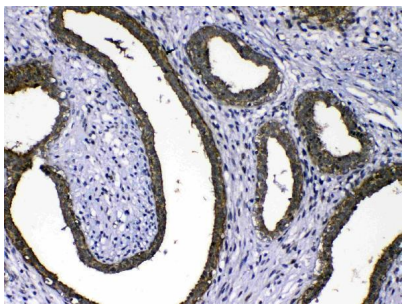
IHC analysis of MMP16 using anti-MMP16 antibody (A05065).MMP16 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MMP16 Antibody (A05065) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

IHC analysis of MMP16 using anti-MMP16 antibody (A05065).MMP16 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with

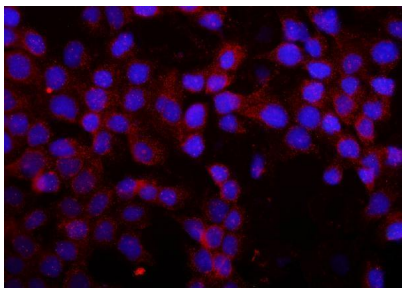
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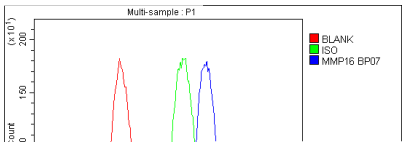
10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MMP16 Antibody (A05065) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of MMP16 using anti-MMP16 antibody (A05065).MMP16 was detected in paraffin-embedded section of human mammary cancer tissue. 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-MMP16 Antibody (A05065) overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IF analysis of MMP16 using anti-MMP16 antibody (A05065). MMP16 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-MMP16 Antibody (A05065) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of CACO-2 cells using anti-MMP16 antibody (A05065).Overlay histogram showing CACO-2 cells stained with A05065 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-MMP16 Antibody (A05065,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

3 Publications Citing This Product

1. PubMed ID: 10.3233/THC-218020, H2S improves doxorubicin-induced myocardial fibrosis by inhibiting oxidative stress and apoptosis via Keap1-Nrf2

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2. PubMed ID: 26604788, miR-132 can inhibit glioma cells invasion and migration by target MMP16 in vitro

3. PubMed ID: 27292876, MT3-MMP down-regulation promotes tumorigenesis and correlates to poor prognosis in esophageal squamous cell carcinoma

Visit bosterbio.com/anti-mmp16-picoband-trade-antibody-a05065-boster.html to see all 3 publications.

Anti-MMP16 Antibody

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