

Anti-Matrix metalloproteinase-16 MMP16 Antibody

Catalog Number: PA1123

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.

Overview

Product Name	Anti-Matrix metalloproteinase-16 MMP16 Antibody
Reactive Species	Human, Rat
Description	Boster Bio Anti-Matrix metalloproteinase-16 MMP16 Antibody catalog # PA1123. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, IHC-F, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human MMP16, identical to the related rat and mouse sequences.
Predicted Reactive Species	Hamster
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 IHC(F).
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat</p> <p>Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human, Rat</p>

Anti-Matrix metalloproteinase-16 MMP16 Antibody (PA1123) Images

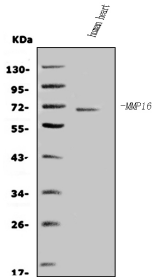


Figure 1. Western blot analysis of MMP16 using anti-MMP16 antibody (PA1123).

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 30 ug of sample under reducing conditions.

Lane 1: human heart 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-MMP16 antigen affinity purified polyclonal antibody (Catalog # PA1123) 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 MMP16 at approximately 70 kDa. The expected band size for MMP16 is at 70 kDa.

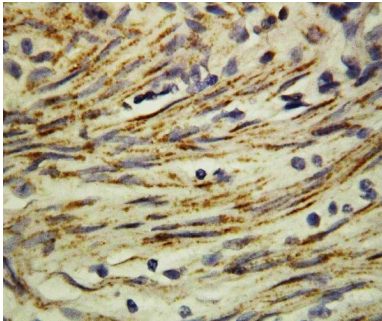


Figure 2. IHC analysis of MMP16 using anti-MMP16 antibody (PA1123).

MMP16 was detected in paraffin-embedded section of human rectal cancer tissues. 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 (PA1123) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

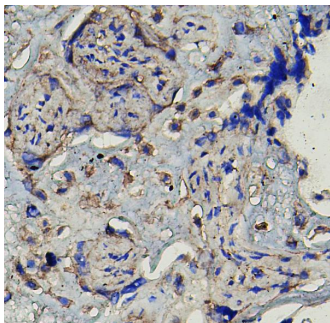
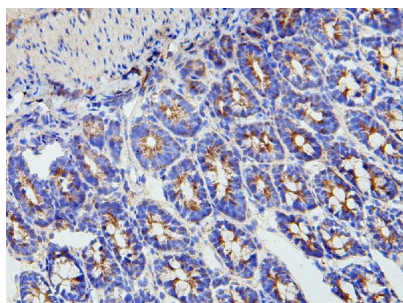


Figure 3. IHC analysis of MMP16 using anti-MMP16 antibody (PA1123).

MMP16 was detected in frozen section of human placenta tissues. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MMP16 Antibody (PA1123) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of MMP16 using anti-MMP16 antibody (PA1123).

MMP16 was detected in frozen section of rat intestine tissues. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MMP16 Antibody (PA1123) 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 Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

3 Publications Citing This Product

1. PubMed ID: 26604788, miR-132 can inhibit glioma cells invasion and migration by target MMP16 in vitro
2. PubMed ID: 21823013, Lin F, Wang X, Jie Z, Hong X, Li X, Wang M, Yu Y. J Huazhong Univ Sci Technolog Med Sci. 2011 Aug;31(4):509-14. Doi: 10.1007/S11596-011-0481-5. Epub 2011 Aug 7. Inhibitory Effects Of Mir-146B-5P On Cell Migration And Invasion Of Pancreatic Cancer ...
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-antibody-pa1123-boster.html to see all 3 publications.

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