BOSTER
antibody and ELISA experts

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Anti-Mitofilin/IMMT Antibody Picoband®

Catalog Number: A04102-2-carrier-free

About IMMT

Mitochondrial inner membrane protein is a protein that in humans is encoded by the IMMT gene. IMMT (also known as mitofilin) is an inner mitochondrial membrane protein that is preferentially expressed in heart tissue and is commonly used as the marker for mitochondria. Mitofilin is known to be a critical organizer of mitochondrial cristae morphology and is indispensable for normal mitochondrial function. Three isoforms of mitofilin exist due to the alternative splicing. All three proteins of 87kD, 89kD and 80kD can be detected in immunoblot analysis with this antibody.

Overview

Product Name	Anti-Mitofilin/IMMT Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Mitofilin/IMMT Antibody Picoband® catalog # A04102-2. Tested in ELISA, IF, IHC, ICC, WB, Flow Cytometry 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 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q16891

Technical Details

Immunogen	E.coli-derivedhumanMitofilin/IMMTrecombinantprotein(Position:D83-K714).HumanIMMT?shares?88.6%?amino?acid?(aa)?sequence?identity?withmouse?IMMT.
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	IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml, -

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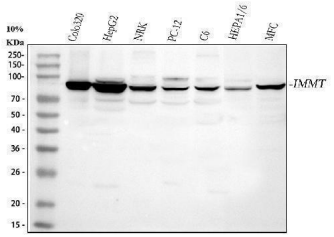
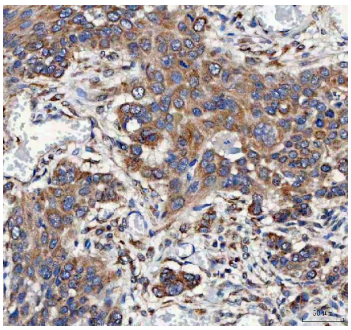
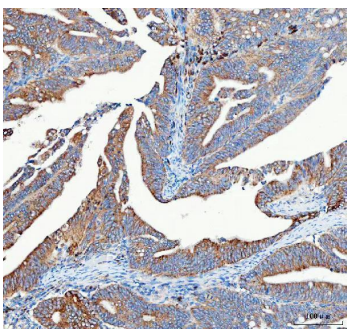
Anti-Mitofilin/IMMT Antibody Picoband® (A04102-2-carrier-free) Images



Western blot analysis of Mitofilin/IMMT using anti-Mitofilin/IMMT antibody (A04102-2). 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 Colo320 whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: rat NRK whole cell lysates, Lane 4: rat PC-12 whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse HEPA1/6 whole cell lysates, Lane 7: mouse MFC whole cell 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-Mitofilin/IMMT antigen affinity purified polyclonal antibody (Catalog # A04102-2) 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 Mitofilin/IMMT at approximately 80-90 kDa. The expected band size for Mitofilin/IMMT is at 84 kDa.



IHC analysis of Mitofilin/IMMT using anti-Mitofilin/IMMT antibody (A04102-2). Mitofilin/IMMT was detected in a paraffin-embedded section of human esophageal squamous carcinoma 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 2 ug/ml rabbit anti-Mitofilin/IMMT Antibody (A04102-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Mitofilin/IMMT using anti-Mitofilin/IMMT antibody (A04102-2). Mitofilin/IMMT was detected in a paraffin-embedded section of human rectum adenocarcinoma 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 2 ug/ml rabbit anti-Mitofilin/IMMT Antibody (A04102-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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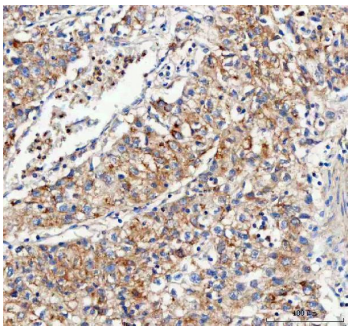
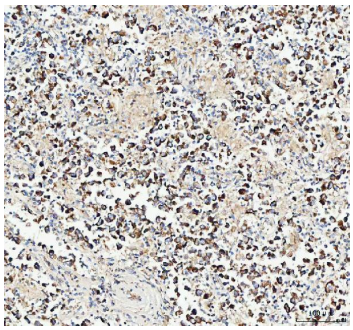
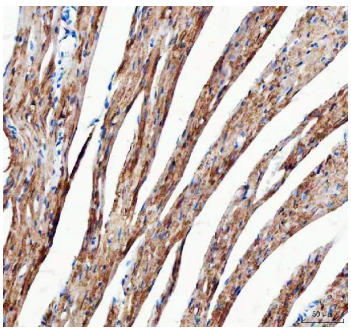


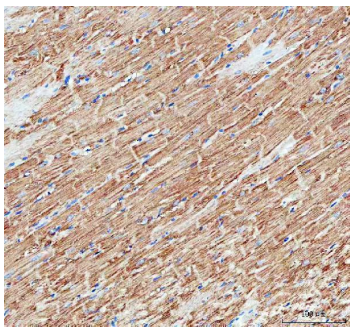
IHC analysis of Mitofilin/IMMT using anti-Mitofilin/IMMT antibody (A04102-2). Mitofilin/IMMT was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Mitofilin/IMMT Antibody (A04102-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Mitofilin/IMMT using anti-Mitofilin/IMMT antibody (A04102-2). Mitofilin/IMMT was detected in a paraffin-embedded section of human testicular germ cell tumors 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 2 ug/ml rabbit anti-Mitofilin/IMMT Antibody (A04102-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Mitofilin/IMMT using anti-Mitofilin/IMMT antibody (A04102-2). Mitofilin/IMMT was detected in a paraffin-embedded section of mouse heart 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 2 ug/ml rabbit anti-Mitofilin/IMMT Antibody (A04102-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of Mitofilin/IMMT using anti-Mitofilin/IMMT antibody (A04102-2). Mitofilin/IMMT was detected in a paraffin-embedded section of rat heart 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 2 ug/ml rabbit anti-Mitofilin/IMMT Antibody (A04102-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IF analysis of Mitofilin/IMMT using anti-Mitofilin/IMMT antibody (A04102-2). Mitofilin/IMMT was detected in an

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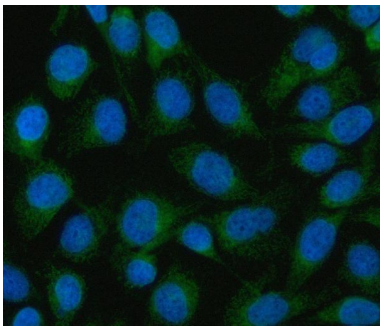
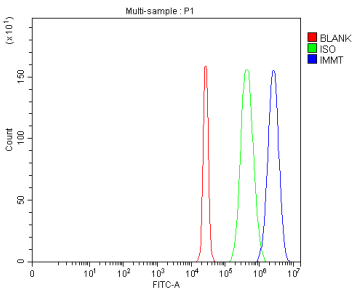


immunocytochemical section of HELA cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-Mitofilin/IMMT Antibody (A04102-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 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 HepG2 cells using anti-Mitofilin/IMMT antibody (A04102-2). Overlay histogram showing HepG2 cells stained with A04102-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Mitofilin/IMMT Antibody (A04102-2, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-Mitofilin/IMMT Antibody

For Research Use Only. Not for use in diagnostic procedures.