

## Anti-TIMM17A Antibody Picoband™

Catalog Number: A12168-1

### About TIMM17A

Mitochondrial import inner membrane translocase subunit Tim17-A is an enzyme that in humans is encoded by the TIMM17A gene. It is mapped to 1q32.1. TIM17 is a conserved suppressor of mtDNA instability, and overexpression of TIMM17A can prevent mtDNA loss in a human cellular model of mitochondrial disease.

### Overview

Product Name	Anti-TIMM17A Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-TIMM17A Antibody Picoband™ catalog # A12168-1. Tested in Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .
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	Q99595

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human TIMM17A, which shares 88.2% and 82.4% amino acid (aa) sequence identity with mouse and rat TIMM17A, respectively.
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), IHC(F) 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.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this

kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

Western blot, 0.1-0.5ug/ml

Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml

Immunohistochemistry (Frozen Section), 0.5-1ug/ml

Immunocytochemistry/Immunofluorescence, 2ug/ml

Flow Cytometry, 1-3ug/1x10<sup>6</sup> cells

## Anti-TIMM17A Antibody Picoband™ (A12168-1) Images

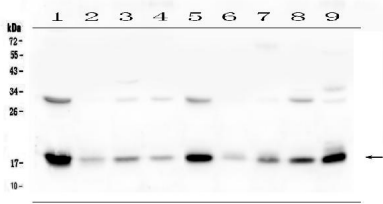


Figure 1. Western blot analysis of TIMM17A using anti-TIMM17A antibody (A12168-1).

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: rat heart tissue lysates,

Lane 2: rat lung tissue lysates,

Lane 3: rat liver tissue lysates,

Lane 4: rat brain tissue lysates,

Lane 5: mouse heart tissue lysates,

Lane 6: mouse lung tissue lysates,

Lane 7: mouse liver tissue lysates,

Lane 8: mouse brain tissue lysates,

Lane 9: mouse Neuro-2a 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-TIMM17A antigen affinity purified polyclonal antibody (Catalog # A12168-1) 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 TIMM17A at approximately 18KD. The expected band size for TIMM17A is at 18KD.

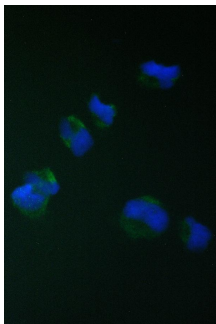


Figure 10. IF analysis of TIMM17A using anti-TIMM17A antibody (A12168-1).

TIMM17A was detected in immunocytochemical section of HELA cell. 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-TIMM17A Antibody (A12168-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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.

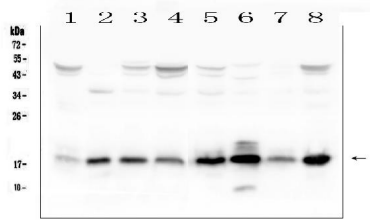
Figure 2. Western blot analysis of TIMM17A using anti-TIMM17A antibody (A12168-1).

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 K562 whole cell lysates,

Lane 3: human T-47D whole cell lysates,



Lane 4: human Caco-2 whole cell lysates,  
Lane 5: human Hela whole cell lysates,  
Lane 6: human THP-1 whole cell lysates,  
Lane 7: human A431 whole cell lysates,  
Lane 8: human A549 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-TIMM17A antigen affinity purified polyclonal antibody (Catalog # A12168-1) 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 TIMM17A at approximately 18KD. The expected band size for TIMM17A is at 18KD.

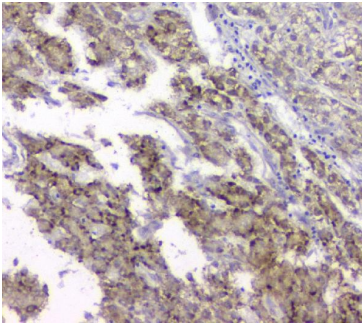


Figure 3. IHC analysis of TIMM17A using anti-TIMM17A antibody (A12168-1).

TIMM17A was detected in paraffin-embedded section of human liver 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-TIMM17A Antibody (A12168-1) 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.

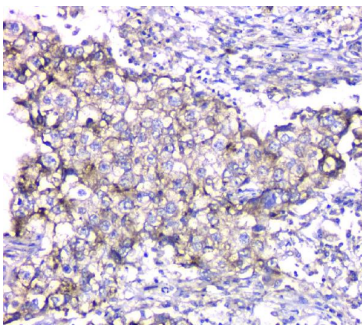
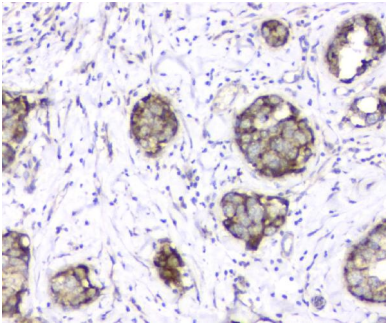


Figure 4. IHC analysis of TIMM17A using anti-TIMM17A antibody (A12168-1).

TIMM17A 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-TIMM17A Antibody (A12168-1) 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 5. IHC analysis of TIMM17A using anti-TIMM17A antibody (A12168-1).

TIMM17A 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-TIMM17A Antibody (A12168-1) 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.

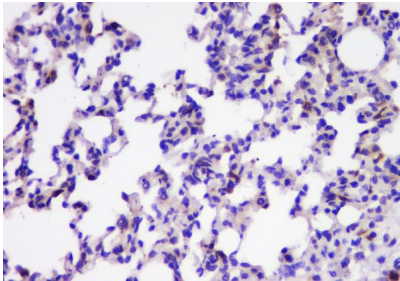


Figure 6. IHC analysis of TIMM17A using anti-TIMM17A antibody (A12168-1). TIMM17A was detected in paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-TIMM17A Antibody (A12168-1) 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.

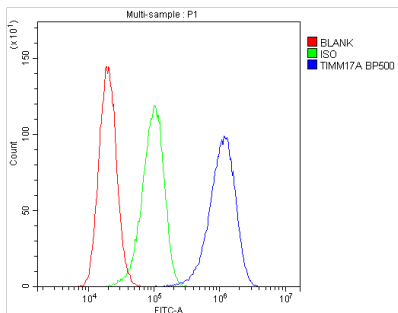


Figure 7. Flow Cytometry analysis of A431 cells using anti-TIMM17A antibody (A12168-1). Overlay histogram showing A431 cells stained with A12168-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-TIMM17A Antibody (A12168-1, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

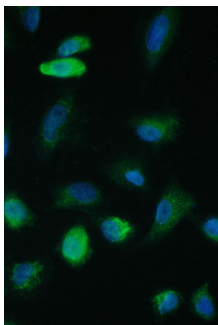
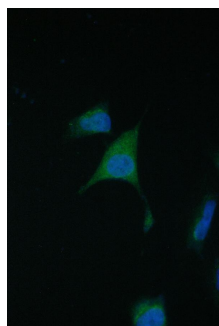


Figure 8. IF analysis of TIMM17A using anti-TIMM17A antibody (A12168-1). TIMM17A was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-TIMM17A Antibody (A12168-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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.

Figure 9. IF analysis of TIMM17A using anti-TIMM17A antibody (A12168-1).





TIMM17A was detected in immunocytochemical section of A549 cell. 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-TIMM17A Antibody (A12168-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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.

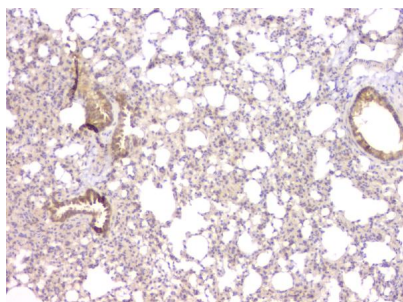


Figure 11. IHC analysis of TIMM17A using anti-TIMM17A antibody (A12168-1).

TIMM17A was detected in paraffin-embedded section of mouse lung 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-TIMM17A Antibody (A12168-1) 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.

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