

## Anti-MAFA Picoband™ Antibody

Catalog Number: A05251-1

### About MAFA

MAFA is a transcription factor that binds RIPE3b, a conserved enhancer element that regulates pancreatic beta cell-specific expression of the insulin gene. It is mapped to 8q24.3.

### Overview

|                      |                                                                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-MAFA Picoband™ Antibody                                                                                                                                                                          |
| Reactive Species     | Human, Mouse                                                                                                                                                                                          |
| Description          | Boster Bio Anti-MAFA Picoband™ Antibody catalog # A05251-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse.                                   |
| Application          | ELISA, Flow Cytometry, IF, IHC, 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           | Q8NHW3                                                                                                                                                                                                |

### Technical Details

|                               |                                                                                                                                                                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                     | E.coli-derived human MAFA recombinant protein (Position: A9-D308).                                                                                                                                               |
| 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           | Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.<br>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, 0.25-0.5ug/ml, Human  
Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse  
Immunocytochemistry/Immunofluorescence, 2ug/ml, Human  
Flow Cytometry, 1-3ug/1x10<sup>6</sup> cells, Human  
Direct ELISA, 0.1-0.5ug/ml, Human

## Anti-MAFA Picoband™ Antibody (A05251-1) Images

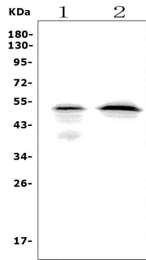


Figure 1. Western blot analysis of MAFA using anti-MAFA antibody (A05251-1).

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 HEK293 whole cell lysates,  
Lane 2: human K562 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-MAFA antigen affinity purified polyclonal antibody (Catalog # A05251-1) 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 1:5000 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 MAFA at approximately 50KD. The expected band size for MAFA is at 37KD.

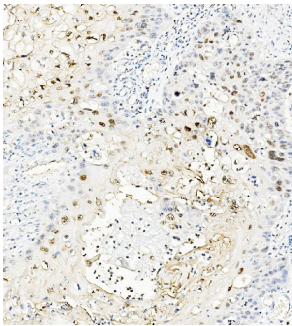


Figure 2. IHC analysis of MAFA using anti-MAFA antibody (A05251-1).

MAFA was detected in paraffin-embedded section of human oesophagus squama cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MAFA Antibody (A05251-1) 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.

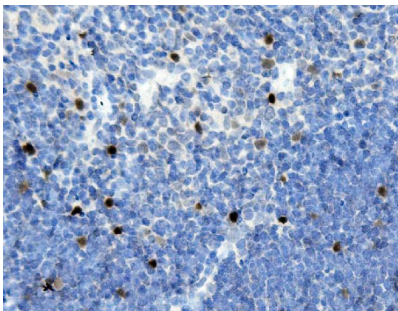
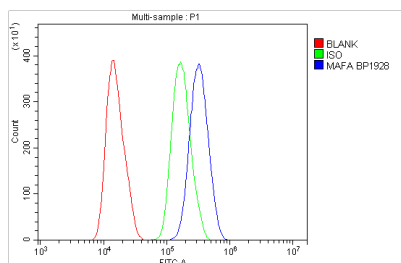


Figure 3. IHC analysis of MAFA using anti-MAFA antibody (A05251-1).

MAFA was detected in paraffin-embedded section of mouse thymus tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MAFA Antibody (A05251-1) 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. Flow Cytometry analysis of SiHa cells using anti-MAFA antibody (A05251-1).

Overlay histogram showing SiHa cells stained with A05251-1 (Blue line).The cells were blocked with 10% normal goat



serum. And then incubated with rabbit anti-MAFA Antibody (A05251-1, 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.

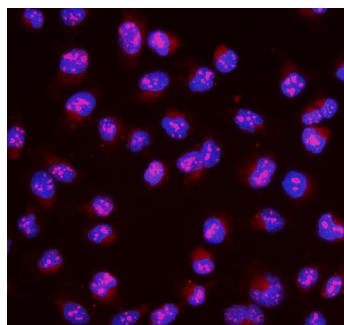


Figure 5. IF analysis of MAFA using anti-MAFA antibody (A05251-1).

MAFA was detected in immunocytochemical section of U2OS 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-MAFA Antibody (A05251-1) 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.

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