

## Anti-LARG/ARHGEF12 Antibody Picoband®

Catalog Number: A06802-3

### About ARHGEF12

Rho guanine nucleotide exchange factor 12 is a protein that in humans is encoded by the ARHGEF12 gene. Rho GTPases play a fundamental role in numerous cellular processes that are initiated by extracellular stimuli working through G protein-coupled receptors. The encoded protein may form a complex with G proteins and stimulate Rho-dependent signals. This protein has been observed to form a myeloid/lymphoid fusion partner in acute myeloid leukemia. Three transcript variants encoding different isoforms have been found for this gene.

### Overview

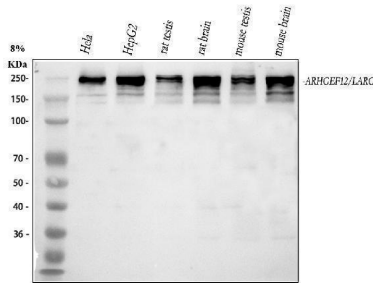
|                      |   |
|----------------------|---|
| Product Name         | Anti-LARG/ARHGEF12 Antibody Picoband®   |
| Reactive Species     | Human, Mouse, Rat   |
| Description          | Boster Bio Anti-LARG/ARHGEF12 Antibody Picoband® catalog # A06802-3. Tested in WB, IHC, ICC, IF, IP, Flow Cytometry, ELISA 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, IP, IF, IHC, ICC, WB   |
| Clonality            | Polyclonal  |
| Formulation          | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .   |
| 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           | Q9NZN5  |

### Technical Details

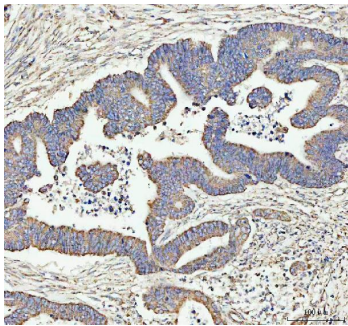
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|-------------------------------|--|
| Immunogen                     | E.coli-derived human LARG/ARHGEF12 recombinant protein (Position: D10-E1426). Human ARHGEF12 shares 89.9% amino acid (aa) sequence identity with mouse ARHGEF12.                         |
| 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. |
| Form                          | Lyophilized  |
| Concentration                 | Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.  |
| Purification                  | Immunogen affinity purified.   |
| Suggested Dilutions           | Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat  |

Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Rat  
Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human  
Immunoprecipitation, 0.5-2 ug/ml, Human  
Flow Cytometry (Fixed), 1-3 ug/1x10<sup>6</sup> cells, Human  
ELISA, 0.1-0.5 ug/ml, -

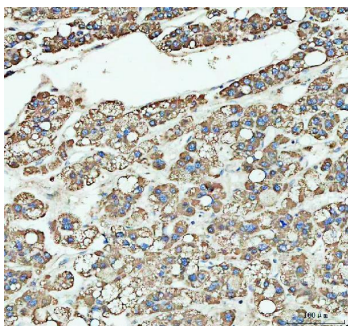
## Anti-LARG/ARHGEF12 Antibody Picoband® (A06802-3) Images



Western blot analysis of LARG/ARHGEF12 using anti-LARG/ARHGEF12 antibody (A06802-3). 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 Hela whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: rat testis tissue lysates, Lane 4: rat brain tissue lysates, Lane 5: mouse testis tissue lysates, Lane 6: mouse brain 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-LARG/ARHGEF12 antigen affinity purified polyclonal antibody (Catalog # A06802-3) 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 LARG/ARHGEF12 at approximately 220 kDa. The expected band size for LARG/ARHGEF12 is at 173 kDa.

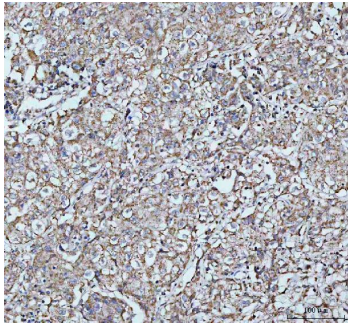


IHC analysis of ARHGEF12L using anti-ARHGEF12L antibody (A06802-3). ARHGEF12L was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ARHGEF12L Antibody (A06802-3) 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.

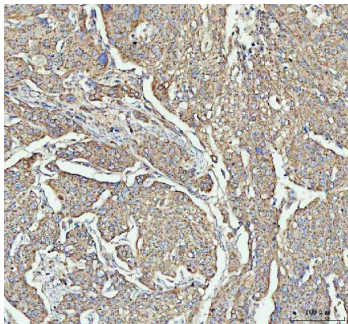


IHC analysis of ARHGEF12L using anti-ARHGEF12L antibody (A06802-3). ARHGEF12L was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ARHGEF12L Antibody (A06802-3) 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.

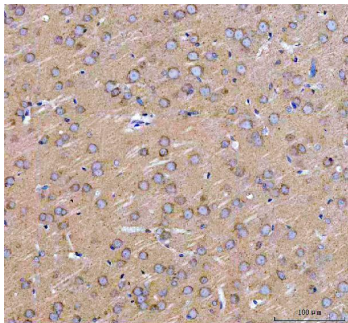
IHC analysis of ARHGEF12L using anti-ARHGEF12L antibody



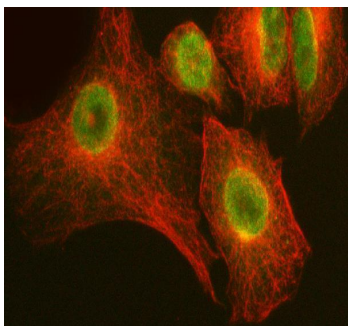
(A06802-3). ARHGEF12L was detected in a paraffin-embedded section of human parotid acinar cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ARHGEF12L Antibody (A06802-3) 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 ARHGEF12L using anti-ARHGEF12L antibody (A06802-3). ARHGEF12L was detected in a paraffin-embedded section of human squamous cell carcinoma of cervix 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-ARHGEF12L Antibody (A06802-3) 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.

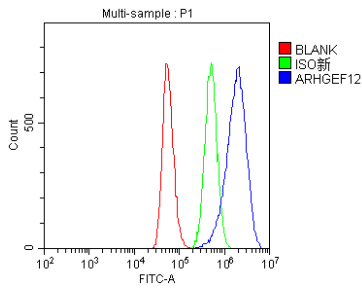


IHC analysis of ARHGEF12L using anti-ARHGEF12L antibody (A06802-3). ARHGEF12L was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ARHGEF12L Antibody (A06802-3) 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.

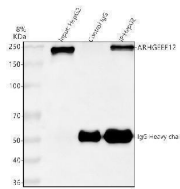


IF analysis of ARHGEF12 using anti-ARHGEF12 antibody (A06802-3) and anti-Beta Tubulin antibody (M01857-3). ARHGEF12 was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-ARHGEF12 Antibody (A06802-3) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and DyLight®550 Conjugated Goat Anti-Mouse IgG (BA1133) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Flow Cytometry analysis of HepG2 cells using anti-



LARG/ARHGEF12 antibody (A06802-3). Overlay histogram showing HepG2 cells stained with A06802-3 (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-LARG/ARHGEF12 Antibody (A06802-3, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Immunoprecipitating (IP) LARG/ARHGEF12 in HepG2 whole cell lysate. Western blot analysis of LARG/ARHGEF12 using anti-LARG/ARHGEF12 antibody (A06802-3); Lane 1: HepG2 whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-LARG/ARHGEF12 antibody in HepG2 whole cell lysate; Lane 3: anti-LARG/ARHGEF12 antibody (2ug) + HepG2 whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-LARG/ARHGEF12 antigen affinity purified polyclonal antibody (A06802-3) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for LARG/ARHGEF12 at approximately 220 kDa. The expected band size for LARG/ARHGEF12 is at 173 kDa.

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### Anti-LARG/ARHGEF12 Antibody

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