

Anti-LARP1 Antibody Picoband®

Catalog Number: A04488-2

About LARP1

La-related protein 1 (LARP1) is a 150 kDa protein that in humans is encoded by the LARP1 gene. La-related protein 1 (LARP1) is a ubiquitously expressed RNA binding protein that promotes both global and specific mRNA translation in cells. LARP1 belongs to the La-related protein family and contains two RNA binding domains, a La motif (LAM), and a neighboring RNA recognition motif-like (RRM-L) domain. Research studies indicate that LARP1 acts downstream of mTORC1 to facilitate cell proliferation and growth by promoting global mRNA translation and translation of mRNAs containing a 5'Terminal Oligo-Pyrimidine (5'TOP) motif, which code for translational machinery components. At the molecular level, LARP1 associates with 5'TOP mRNAs and multiple translation machinery components to positively regulate translation. Additional studies show that LARP1 expression is upregulated in hepatocellular carcinoma (HCC) patients and that high LARP1 expression in HCC negatively correlates with survival rate.

Overview

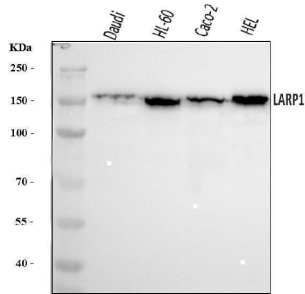
Product Name	Anti-LARP1 Antibody Picoband®
Reactive Species	Human, Mouse
Description	Boster Bio Anti-LARP1 Antibody Picoband® catalog # A04488-2. Tested in ELISA, IF, IHC, ICC, WB, Flow Cytometry applications. This antibody reacts with Human, Mouse. The brand Picoband indicates this is a premium antibody 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 Na ₂ HPO ₄ .
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	Q6PKG0

Technical Details

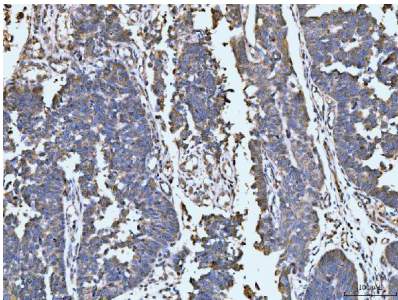
Immunogen	E.coli-derived human LARP1 recombinant protein (Position: K123-E401).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross 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	Western blot, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Mouse Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug /1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

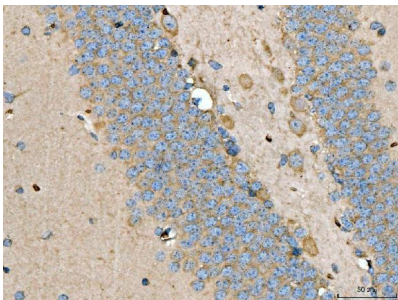
Anti-LARP1 Antibody Picoband® (A04488-2) Images



Western blot analysis of LARP1 using anti-LARP1 antibody (A04488-2). 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 Daudi whole cell lysates, Lane 2: human HL-60 whole cell lysates, Lane 3: human Caco-2 whole cell lysates, Lane 4: human HEL 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-LARP1 antigen affinity purified polyclonal antibody (Catalog # A04488-2) 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 LARP1 at approximately 150 kDa. The expected band size for LARP1 is at 124 kDa.

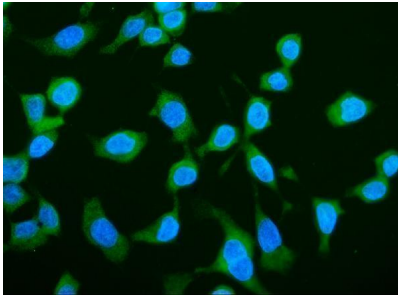


IHC analysis of LARP1 using anti-LARP1 antibody (A04488-2). LARP1 was detected in a paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-LARP1 Antibody (A04488-2) 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.

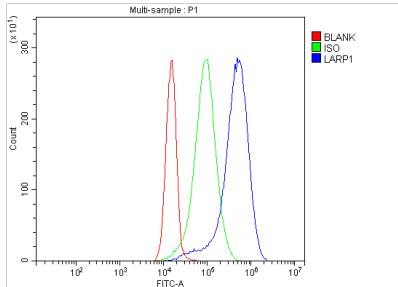


IHC analysis of LARP1 using anti-LARP1 antibody (A04488-2). LARP1 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-LARP1 Antibody (A04488-2) 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 LARP1 using anti-LARP1 antibody (A04488-2). LARP1 was detected in an immunocytochemical section of CACO-2 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-LARP1 Antibody (A04488-2) 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 JK cells using anti-LARP1 antibody (A04488-2). Overlay histogram showing JK cells stained with A04488-2 (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-LARP1 Antibody (A04488-2, 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.

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Anti-LARP1 Antibody

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