

Anti-ARP2/3 subunit 1B/ARPC1B Antibody Picoband®

Catalog Number: A07192-2

About ARPC1B

Actin-related protein 2/3 complex subunit 1B is a protein that in humans is encoded by the ARPC1B gene. It is mapped to 7q22.1. This gene encodes one of seven subunits of the human Arp2/3 protein complex. This subunit is a member of the SOP2 family of proteins and is most similar to the protein encoded by gene ARPC1A. The similarity between these two proteins suggests that they both may function as p41 subunit of the human Arp2/3 complex that has been implicated in the control of actin polymerization in cells. It is possible that the p41 subunit is involved in assembling and maintaining the structure of the Arp2/3 complex. Multiple versions of the p41 subunit may adapt the functions of the complex to different cell types or developmental stages. This protein also has a role in centrosomal homeostasis by being an activator and substrate of the Aurora A kinase.

Overview

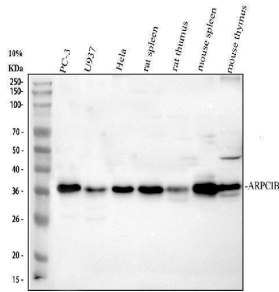
Product Name	Anti-ARP2/3 subunit 1B/ARPC1B Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ARP2/3 subunit 1B/ARPC1B Antibody Picoband® catalog # A07192-2. Tested in ELISA, Flow Cytometry, IP, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand 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, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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	O15143

Technical Details

Immunogen	E.coli-derived human ARP2/3 subunit 1B/ARPC1B recombinant protein (Position: Q293-K372).
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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5ug/ml, -

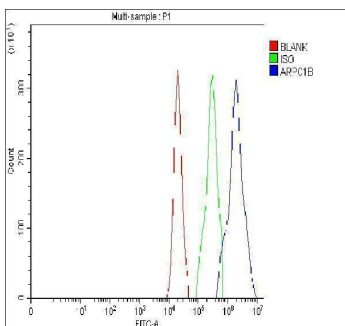
Anti-ARP2/3 subunit 1B/ARPC1B Antibody Picoband® (A07192-2) Images



Western blot analysis of ARPC1B using anti-ARPC1B antibody (A07192-2). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human PC-3 whole cell lysates, Lane 2: human U937 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: rat spleen tissue lysates, Lane 5: rat thymus tissue lysates, Lane 6: mouse spleen tissue lysates, Lane 7: mouse thymus 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-ARPC1B antigen affinity purified polyclonal antibody (A07192-2) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for ARPC1B at approximately 37 kDa. The expected band size for ARPC1B is at 41 kDa.

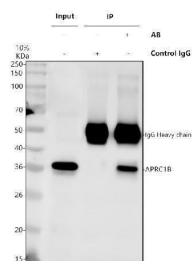


IHC analysis of ARPC1B using anti-ARPC1B antibody (A07192-2). ARPC1B was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ARPC1B Antibody (A07192-2) 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.



Flow Cytometry analysis of U937 cells using anti-ARPC1B antibody (A07192-2). Overlay histogram showing U937 cells stained with A07192-2 (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-ARPC1B Antibody (A07192-2, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Immunoprecipitating (IP) ARPC1B in Hela whole cell lysate.



Western blot analysis of ARPC1B using anti-ARPC1B antibody (A07192-2); Lane 1: Hela whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-ARPC1B antibody in Hela whole cell lysate; Lane 3: anti-ARPC1B antibody (2ug) + Hela whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ARPC1B antigen affinity purified polyclonal antibody (A07192-2) 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 ARPC1B at approximately 37 kDa. The expected band size for ARPC1B is at 41 kDa.

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