BOSTER
antibody and ELISA experts

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Anti-APPL/APPL1 Antibody Picoband® (monoclonal, 5G11)

Catalog Number: M02381

About APPL1

DCC-interacting protein 13-alpha (APPL1) is a protein that in humans is encoded by the APPL1 gene. The APPL1 gene is mapped to 3q21.1-p13.3. It is said to contain 709 amino acids and share 54% amino acid identity with APPL2. APPL is highly expressed in skeletal muscle, heart, ovary, and pancreas, tissues in which AKT2 mRNA is abundant. It has been regarded as an adaptor that may tether inactive AKT2 to the PI3K in the cytoplasm and thereby may expedite recruitment of AKT2 and PI3K to the cell membrane upon mitogenic stimulation.

Overview

Product Name	Anti-APPL/APPL1 Antibody Picoband® (monoclonal, 5G11)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-APPL/APPL1 Antibody Picoband® (monoclonal, 5G11) catalog # M02381. Tested in Flow Cytometry, 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	Flow Cytometry, IHC, WB
Clonality	Monoclonal 5G11
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
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	Mouse
Uniprot ID	Q9UKG1

Technical Details

Immunogen	E.coli-derived human APPL/APPL1 recombinant protein (Position: K91-R668).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2a
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human

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Anti-APPL/APPL1 Antibody Picoband® (monoclonal, 5G11) (M02381) Images

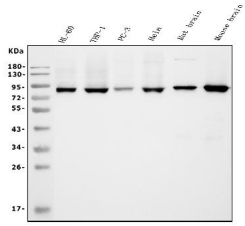

Figure 1. Western blot analysis of APPL/APPL1 using anti-APPL/APPL1 antibody (M02381).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human HL-60 whole cell lysates,
Lane 2: human THP-1 whole cell lysates,
Lane 3: human PC-3 whole cell lysates,
Lane 4: human Hela whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: mouse brain tissue 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 mouse anti-APPL/APPL1 antigen affinity purified monoclonal antibody (Catalog # M02381) 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-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for APPL/APPL1 at approximately 85KD. The expected band size for APPL/APPL1 is at 85KD.

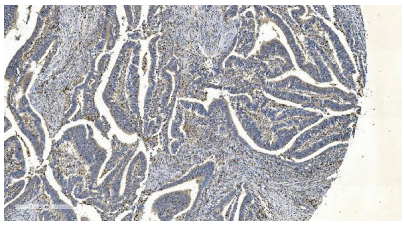

Figure 2. IHC analysis of APPL/APPL1 using anti-APPL/APPL1 antibody (M02381).
APPL/APPL1 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-APPL/APPL1 Antibody (M02381) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

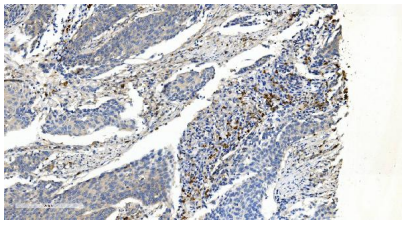

Figure 3. IHC analysis of APPL/APPL1 using anti-APPL/APPL1 antibody (M02381).
APPL/APPL1 was detected in paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-APPL/APPL1 Antibody (M02381) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

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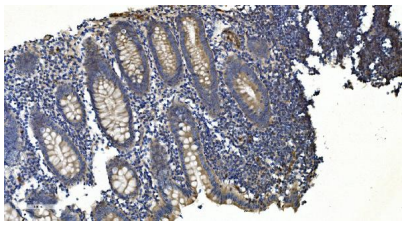

Figure 4. IHC analysis of APPL/APPL1 using anti-APPL/APPL1 antibody (M02381).
APPL/APPL1 was detected in paraffin-embedded section of human appendicitis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-APPL/APPL1 Antibody (M02381) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

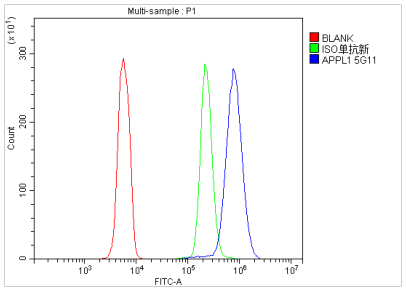

Figure 5. Flow Cytometry analysis of U-937 cells using anti-APPL/APPL1 antibody (M02381).
Overlay histogram showing U-937 cells stained with M02381 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-APPL/APPL1 Antibody (M02381, 1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.