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Anti-VAPB Antibody Picoband™

Catalog Number: A01372

About VAPB

Vesicle-associated membrane protein-associated protein B/C is a protein that in humans is encoded by the VAPB gene. The VAPB gene is found on the 20th human chromosome. The protein encoded by this gene is a type IV membrane protein found in plasma and intracellular vesicle membranes. The encoded protein is found as a homodimer and as a heterodimer with VAPA. This protein also can interact with VAMP1 and VAMP2 and may be involved in vesicle trafficking.

Overview

Product Name	Anti-VAPB Antibody Picoband™
Reactive Species	Human, Mouse
Description	Boster Bio Anti-VAPB Antibody Picoband™ catalog # A01372. 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_2HPO_4, 0.05mg NaN_3.
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	O95292

Technical Details

Immunogen	E. coli-derived human VAPB recombinant protein (Position: A2-R55). Human VAPB shares 98.1% and 100% amino acid (aa) sequence identity with mouse and rat VAPB, respectively.
Predicted Reactive Species	Human
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.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. 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, 0.1-0.5ug/ml, Human, Mouse Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, By Heat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry|1-3ug/1x10^6 cells, Human Direct ELISA, 0.1-0.5ug/ml, Human

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Anti-VAPB Antibody Picoband™ (A01372) Images

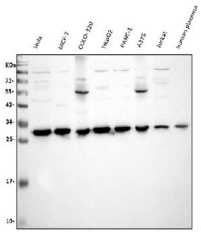

Figure 1. Western blot analysis of VAPB using anti-VAPB antibody (A01372).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human MCF-7 whole cell lysates,
Lane 3: human COLO-320 whole cell lysates,
Lane 4: human HepG2 whole cell lysates,
Lane 5: human PANC-1 whole cell lysates,
Lane 6: human A375 whole cell lysates,
Lane 7: human Jurkat whole cell lysates,
Lane 8: human placenta 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 rabbit anti-VAPB antigen affinity purified polyclonal antibody (Catalog # A01372) 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 1:10000 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 VAPB at approximately 27KD. The expected band size for VAPB is at 27KD.

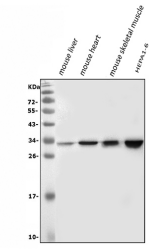

Figure 2. Western blot analysis of VAPB using anti-VAPB antibody (A01372).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: mouse liver tissue lysates,
Lane 2: mouse heart tissue lysates,
Lane 3: mouse skeletal muscle tissue lysates,
Lane 4: mouse HEPA1-6 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-VAPB antigen affinity purified polyclonal antibody (Catalog # A01372) 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 1:10000 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 VAPB at approximately 27KD. The expected band size for VAPB is at 27KD.

Figure 3. IHC analysis of VAPB using anti-VAPB antibody

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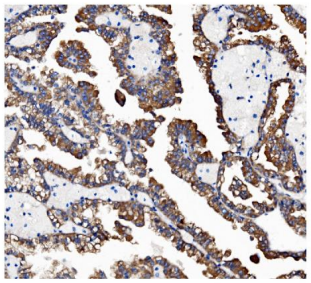

(A01372).
VAPB was detected in paraffin-embedded section of human renal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VAPB Antibody (A01372) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

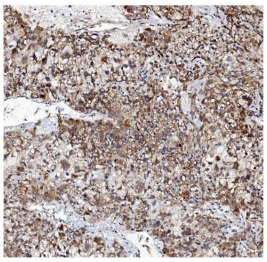

Figure 4. IHC analysis of VAPB using anti-VAPB antibody (A01372).
VAPB was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VAPB Antibody (A01372) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

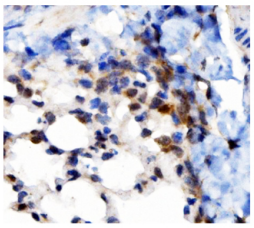

Figure 5. IHC analysis of VAPB using anti-VAPB antibody (A01372).
VAPB was detected in paraffin-embedded section of mouse lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VAPB Antibody (A01372) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

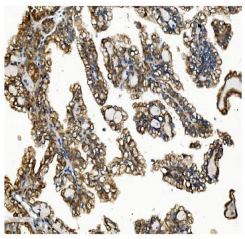

Figure 6. IHC analysis of VAPB using anti-VAPB antibody (A01372).
VAPB was detected in paraffin-embedded section of human renal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-VAPB Antibody (A01372) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 7. IF analysis of VAPB using anti-VAPB antibody (A01372).
VAPB was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The

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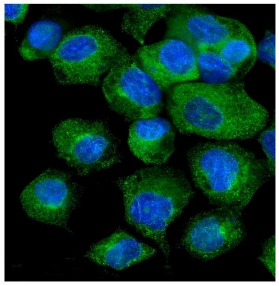

cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-VAPB Antibody (A01372) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

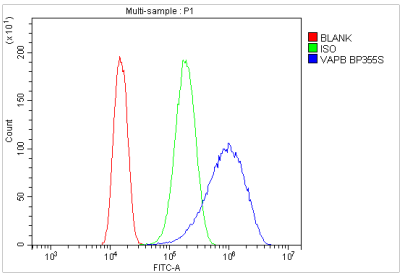

Figure 8. Flow Cytometry analysis of CACO-2 cells using anti-VAPB antibody (A01372).
Overlay histogram showing CACO-2 cells stained with A01372 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-VAPB Antibody (A01372,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

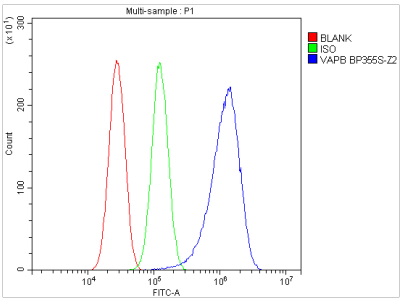

Figure 9. Flow Cytometry analysis of U87 cells using anti-VAPB antibody (A01372).
Overlay histogram showing U87 cells stained with A01372 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-VAPB Antibody (A01372,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.