

Anti-Caveolin-2/CAV2 Antibody Picoband™

Catalog Number: A01574

About CAV2

Caveolin-2 is a protein that in humans is encoded by the CAV2 gene. It is mapped to 7q31.1-q31.2. The protein encoded by this gene is a major component of the inner surface of caveolae, small invaginations of the plasma membrane, and is involved in essential cellular functions, including signal transduction, lipid metabolism, cellular growth control and apoptosis. This protein may function as a tumor suppressor. Caveolin-2 is a protein related to caveolin-1 which is derived caveolin-enriched membranes. CAV2 and CAV1 are similar in most respects and they differ in their functional interactions with heterotrimeric G proteins. Both of them are expressed in neuronal cells. Caveolin-2 was upregulated in response to neuronal cell injury.

Overview

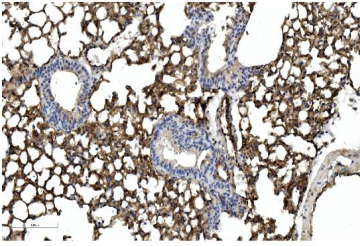
Product Name	Anti-Caveolin-2/CAV2 Antibody Picoband™
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-Caveolin-2/CAV2 Antibody Picoband™ catalog # A01574. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Monkey, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
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	P51636

Technical Details

Immunogen	E.coli-derived human Caveolin-2/CAV2 recombinant protein (Position: L3-D162).
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.
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, 0.1-0.25ug/ml, Human, Mouse, Monkey, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 4ug/ml, Human Immunofluorescence, 4ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human Direct ELISA, 0.1-0.5ug/ml, Human

Caveolin-2/CAV2 antibody (Ab15717). Caveolin-2/CAV2 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-Caveolin-2/CAV2 Antibody (A01574) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

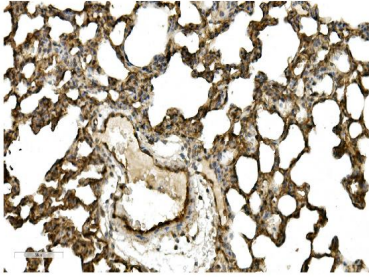


Figure 4. IHC analysis of Caveolin-2/CAV2 using anti-Caveolin-2/CAV2 antibody (A01574). Caveolin-2/CAV2 was detected in paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Caveolin-2/CAV2 Antibody (A01574) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

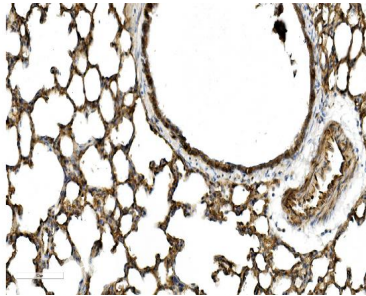


Figure 5. IHC analysis of Caveolin-2/CAV2 using anti-Caveolin-2/CAV2 antibody (A01574). Caveolin-2/CAV2 was detected in paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Caveolin-2/CAV2 Antibody (A01574) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

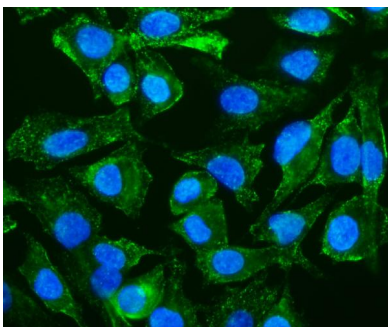
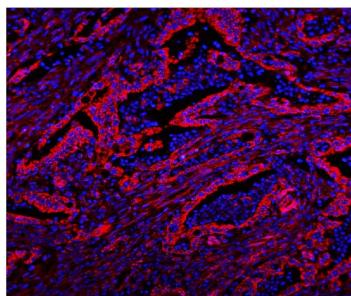


Figure 6. IF analysis of Caveolin-2/CAV2 using anti-Caveolin-2/CAV2 antibody (A01574). Caveolin-2/CAV2 was detected in immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-Caveolin-2/CAV2 Antibody (A01574) 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 7. IF analysis of Caveolin-2/CAV2 using anti-Caveolin-2/CAV2 antibody (A01574). Caveolin-2/CAV2 was detected in paraffin-embedded section of human intestinal 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 5ug/mL rabbit anti-Caveolin-2/CAV2 Antibody (A01574) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) 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.

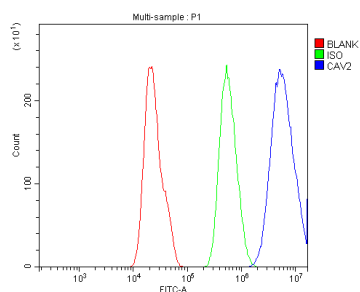


Figure 8. Flow Cytometry analysis of A549 cells using anti-Caveolin-2/CAV2 antibody (A01574). Overlay histogram showing A549 cells stained with A01574 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Caveolin-2/CAV2 Antibody (A01574, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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