BOSTER
antibody and ELISA experts

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Anti-Caveolin-3/CAV3 Antibody Picoband™

Catalog Number: A00990-2

About CAV3

Caveolin-3 is a protein that in humans is encoded by the CAV3 gene. This gene encodes a caveolin family member, which functions as a component of the caveolae plasma membranes found in most cell types. Caveolin proteins are proposed to be scaffolding proteins for organizing and concentrating certain caveolin-interacting molecules. Mutations identified in this gene lead to interference with protein oligomerization or intracellular routing, disrupting caveolae formation and resulting in Limb-Girdle muscular dystrophy type-1C (LGMD-1C), hyperCKemia or rippling muscle disease (RMD). Alternative splicing has been identified for this locus, with inclusion or exclusion of a differentially spliced intron. In addition, transcripts utilize multiple polyA sites and contain two potential translation initiation sites.

Overview

Product Name	Anti-Caveolin-3/CAV3 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Caveolin-3/CAV3 Antibody Picoband™ catalog # A00990-2. Tested in ELISA, IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg 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	P56539

Technical Details

Immunogen	E.coli-derived human Caveolin-3/CAV3 recombinant protein (Position: M1-D55).
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).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

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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, 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml Immunofluorescence, 2ug/ml Direct ELISA, 0.1-0.5ug/ml

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Anti-Caveolin-3/CAV3 Antibody Picoband™ (A00990-2) Images

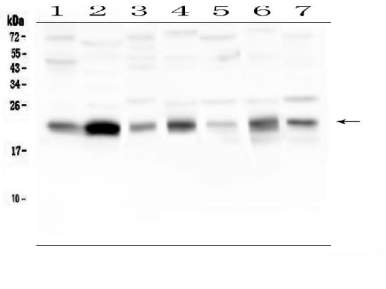

Figure 1. Western blot analysis of CAV3 using anti-CAV3 antibody (A00990-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human placenta tissue lysates,
Lane 2: human U-87MG whole cell lysates,
Lane 3: human Hela whole cell lysates,
Lane 4: rat stomach tissue lysates,
Lane 5: rat testis tissue lysates,
Lane 6: mouse stomach tissue lysates,
Lane 7: mouse testis 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-CAV3 antigen affinity purified polyclonal antibody (Catalog # A00990-2) 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 1:10000 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 CAV3 at approximately 22KD. The expected band size for CAV3 is at 17KD.

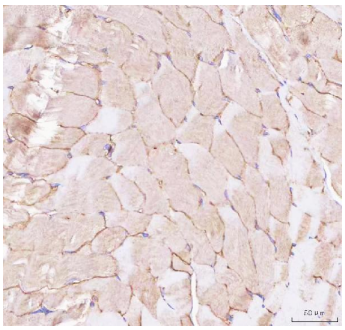

Figure 2. IHC analysis of CAV3 using anti-CAV3 antibody (A00990-2).
CAV3 was detected in a paraffin-embedded section of human skeletal muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CAV3 Antibody (A00990-2) 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.

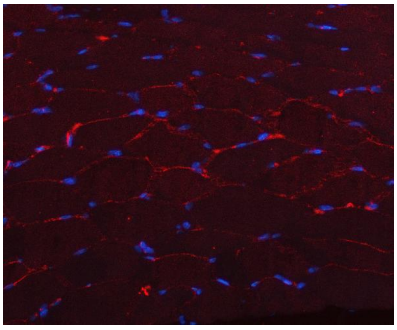

Figure 3. IF analysis of CAV3 using anti-CAV3 antibody (A00990-2).
CAV3 was detected in a paraffin-embedded section of human cardiac muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/mL rabbit anti-CAV3 Antibody (A00990-2) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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

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sets appropriate for the label used.

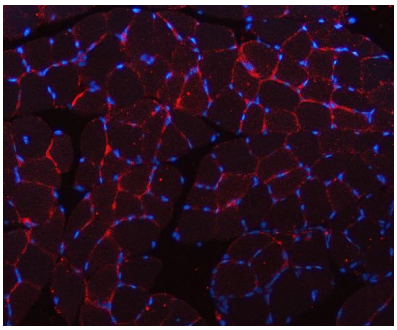

Figure 4. IF analysis of CAV3 using anti-CAV3 antibody (A00990-2).
CAV3 was detected in a paraffin-embedded section of mouse cardiac muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/mL rabbit anti-CAV3 Antibody (A00990-2) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.

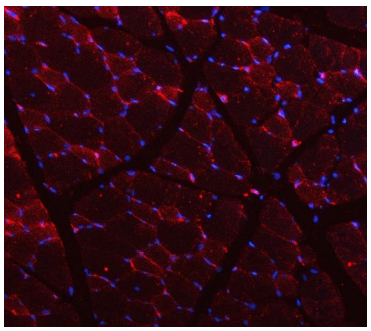

Figure 5. IF analysis of CAV3 using anti-CAV3 antibody (A00990-2).
CAV3 was detected in a paraffin-embedded section of rat cardiac muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/mL rabbit anti-CAV3 Antibody (A00990-2) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.