

Anti-Caveolin-2 Antibody
Catalog # ABO10858**Specification****Anti-Caveolin-2 Antibody - Product Information**

Application	WB, IHC
Primary Accession	P51636
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Caveolin-2(CAV2) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Caveolin-2 Antibody - Additional Information

Gene ID 858

Other Names

Caveolin-2, CAV2

Calculated MW

18291 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Nucleus. Cytoplasm. Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Potential hairpin-like structure in the membrane. Membrane protein of caveolae. Tyr-19-phosphorylated form is enriched at sites of cell-cell contact and is translocated to the nucleus in complex with MAPK1 in response to insulin (By similarity). Tyr-27- phosphorylated form is located both in the cytoplasm and plasma membrane. CAV1-mediated Ser-23-phosphorylated form locates to the plasma membrane. Ser-36-phosphorylated form resides in intracellular compartments. .

Tissue Specificity

Expressed in endothelial cells, smooth muscle cells, skeletal myoblasts and fibroblasts. .

Protein Name

Caveolin-2

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human Caveolin-2(1-17aa MGLETEKADVQLFMDDD), different from the related rat and mouse sequences by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the caveolin family.

Anti-Caveolin-2 Antibody - Protein Information

Name CAV2

Function

May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity. Acts as an accessory protein in conjunction with CAV1 in targeting to lipid rafts and driving caveolae formation. The Ser-36 phosphorylated form has a role in modulating mitosis in endothelial cells. Positive regulator of cellular mitogenesis of the MAPK signaling pathway. Required for the insulin-stimulated nuclear translocation and activation of MAPK1 and STAT3, and the subsequent regulation of cell cycle progression (By similarity).

Cellular Location

Nucleus. Cytoplasm. Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Note=Potential hairpin-like structure in the membrane. Membrane protein of caveolae Tyr-19-phosphorylated form is enriched at sites of cell-cell contact and is translocated to the nucleus in complex with MAPK1 in response to insulin (By similarity). Tyr-27-phosphorylated form is located both in the cytoplasm and plasma membrane. CAV1-mediated Ser-23-phosphorylated form locates to the plasma membrane. Ser-36-phosphorylated form resides in intracellular compartments.

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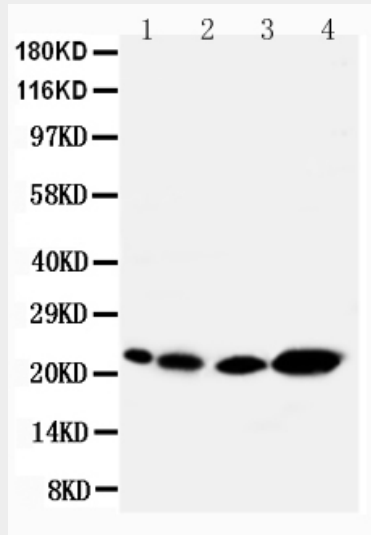
Anti-Caveolin-2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

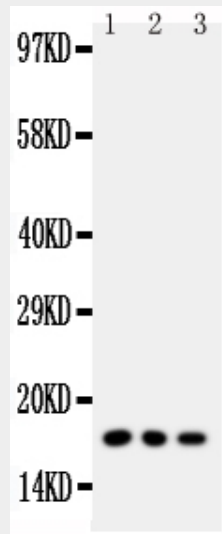
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

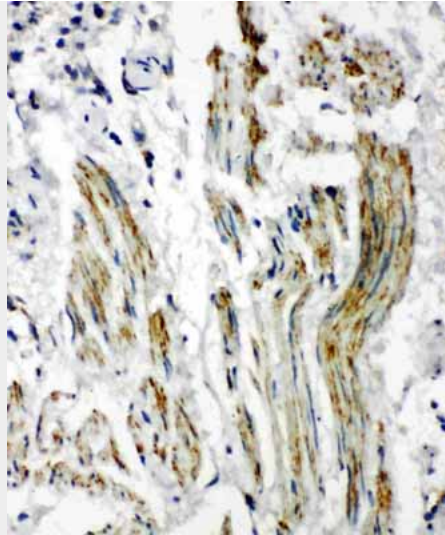
Anti-Caveolin-2 Antibody - Images



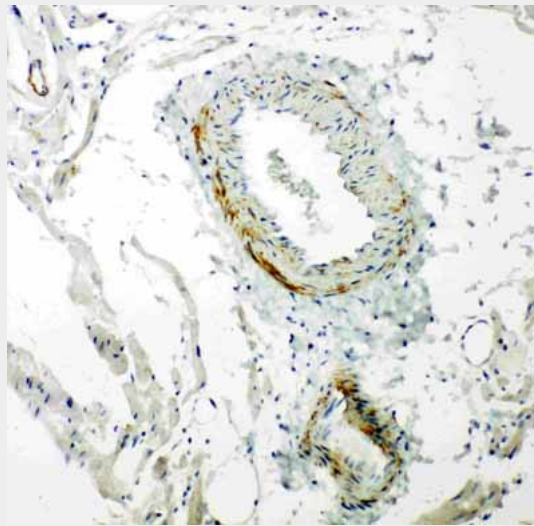
Anti-Caveolin-2 antibody, ABO10858, Western blotting
Lane 1: Rat Heart Tissue Lysate
Lane 2: Rat Lung Tissue Lysate
Lane 3: HELA Cell Lysate
Lane 4: A431 Cell Lysate



Anti-Caveolin-2 antibody, ABO10858, Western blotting
All lanes: Anti Caveolin-2 (ABO10858) at 0.5ug/ml
Lane 1: HELA Whole Cell Lysate at 40ug
Lane 2: SMMC Whole Cell Lysate at 40ug
Lane 3: COLO320 Whole Cell Lysate at 40ug
Predicted bind size: 17KD
Observed bind size: 17KD



Anti-Caveolin-2 antibody, ABO10858, IHC(P)IHC(P): Human Lung Cancer Tissue



Anti-Caveolin-2 antibody, ABO10858, IHC(P)IHC(P): Rat Cardiac Muscle Tissue

Anti-Caveolin-2 Antibody - Background

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. Caveolin-1 and caveolin-2 are expressed in neuronal cells. Caveolin-2 was upregulated in response to neuronal cell injury. The CAV2 gene is mapped to 7q31.1-q31.2. The CAV1 gene contains 3 exons, while the human CAV2 gene contains 2 exons. The boundary of the last exon of CAV1 and CAV2 are analogous, suggesting that they arose through gene duplication. The genes encoding murine caveolin-1 and -2 are colocalized within the A2 region of mouse chromosome 6.