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Anti-Caveolin-2 Antibody
Catalog # ABO10858

Specification

Anti-Caveolin-2 Antibody - Product Information

Application	**WB, IHC-P**
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 r˚Constitution, 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.

Tissue Location
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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

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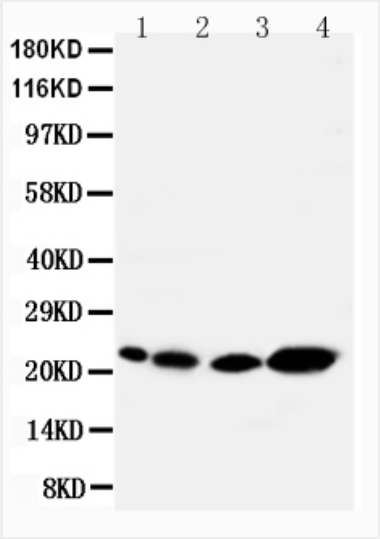
- Flow Cytomety
- Cell Culture

Anti-Caveolin-2 Antibody - Images



Anti-Caveolin-2 antibody, ABO10858, Western blottingLane 1: Rat Heart Tissue LysateLane 2: Rat lung Tissue LysateLane 3: HELA Cell LysateLane 4: A431 Cell Lysate

Anti-Caveolin-2 antibody, ABO10858, Western blottingAll lanes: Anti Caveolin-2 (ABO10858) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: SMMC Whole Cell Lysate at 40ugLane 3: COLO320 Whole Cell Lysate at 40ugPredicted bind size: 17KDObserved bind size: 17KD

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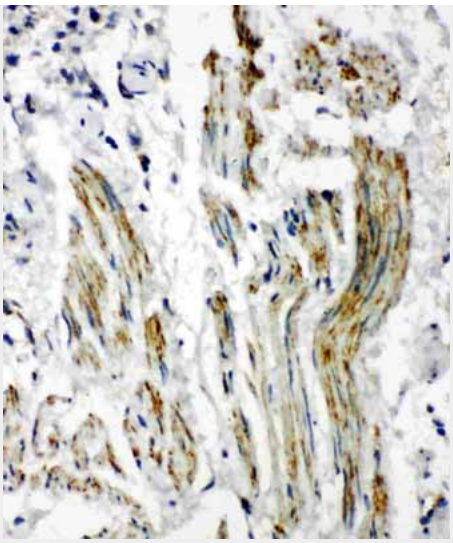
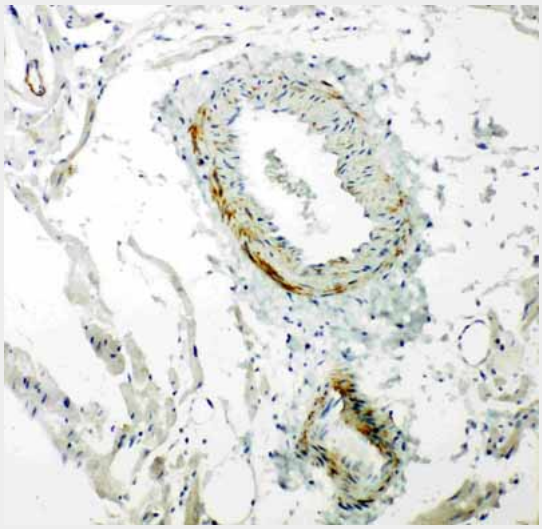


Anti-Caveolin-2 antibody, ABO10858, IHC(P)IHC(P): Human Lung Cancer Tissue



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.