

Anti-Caveolin-2 Antibody

Catalog # ABO10858

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.

Additional Information

Gene ID	858
Other Names	Caveolin-2, CAV2
Calculated MW	18291
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. .

Source Eukaryota

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.

Protein Information

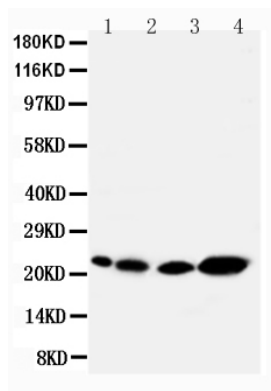
Name	CAV2
Function	May act as a scaffolding protein within caveolar membranes. Interacts directly with G protein alpha subunits and can functionally regulate their activity. Acts as an accessory protein in conjunction with CAV1 in targeting to lipid rafts and driving caveolae formation. The Ser-36 phosphorylated 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	Expressed in endothelial cells, smooth muscle cells, skeletal myoblasts and fibroblasts

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.

Images

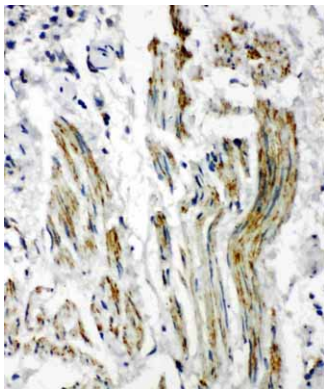
Anti-Caveolin-2 antibody, ABO10858, Western blotting
Lane 1: Rat Heart Tissue Lysate
Lane 2: Rat lung Tissue Lysate
Lane 3: HELA Cell Lysate
Lane 4: A431 Cell



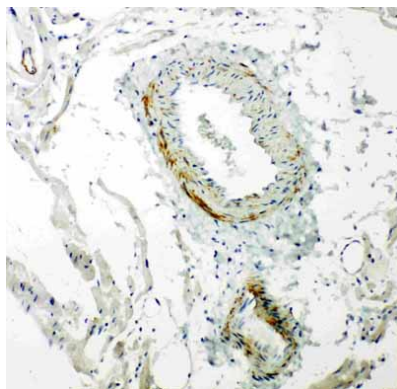
Lysate



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.