

Anti-Caveolin-1 Picoband Antibody

Catalog # ABO11861

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC
Primary Accession	Q03135
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Caveolin-1(CAV1) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	857
Other Names	Caveolin-1, CAV1, CAV
Calculated MW	20472
Application Details	Immunocytochemistry , 0.5-1 μ g/ml, Human, - Immunohistochemistry(Frozen Section), 0.5-1 μ g/ml, Human, Mouse, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, By Heat Western blot, 0.1-0.5 μ g/ml, Human
Subcellular Localization	Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Membrane raft. Colocalized with DPP4 in membrane rafts. Potential hairpin- like structure in the membrane. Membrane protein of caveolae.
Tissue Specificity	Expressed in muscle and lung, less so in liver, brain and kidney.
Source	Eukaryota
Protein Name	Caveolin-1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E.coli-derived human Caveolin-1 recombinant protein (Position: G4-I178). Human Caveolin-1 shares 95% and 94% amino acid (aa) sequences identity with mouse and rat Caveolin-1, respectively.
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	CAV1
Synonyms	CAV
Function	May act as a scaffolding protein within caveolar membranes (PubMed: 11751885). Forms a stable heterooligomeric complex with CAV2 that targets to lipid rafts and drives caveolae formation. Mediates the recruitment of CAVIN proteins (CAVIN1/2/3/4) to the caveolae (PubMed: 19262564). Interacts directly with G protein alpha subunits and can functionally regulate their activity (By similarity). Involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner (PubMed: 17287217). Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway (By similarity). Negatively regulates TGFB1-mediated activation of SMAD2/3 by mediating the internalization of TGFBR1 from membrane rafts leading to its subsequent degradation (PubMed: 25893292). Binds 20(S)- hydroxycholesterol (20(S)-OHC) (By similarity).
Cellular Location	Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Membrane raft. Golgi apparatus, trans-Golgi network {ECO:0000250 UniProtKB:P33724}. Cytoplasm. Note=Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae. In the presence of DSG2 localizes to the cytoplasm away from cell borders (PubMed:26918609)
Tissue Location	Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

Background

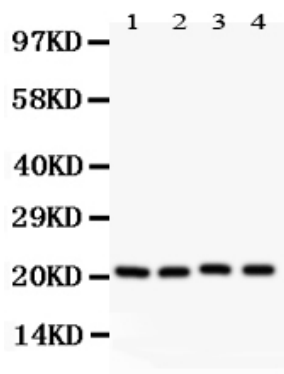
CAV1(Caveolin-1) is a protein that in humans is encoded by the CAV1 gene. The CAV1 gene is mapped to 7q31.2. The scaffolding protein encoded by this gene is the main component of the caveolae plasma membranes found in most cell types. The protein links integrin subunits to the tyrosine kinase FYN, an initiating step in coupling integrins to the Ras-ERK pathway and promoting cell cycle progression. The gene is a tumor suppressor gene candidate and a negative regulator of the Ras-p42/44 MAP kinase cascade. CAV1 and CAV2 are located next to each other on chromosome 7 and express colocalizing proteins that form a stable hetero-oligomeric complex. By using alternative initiation codons in the same reading frame, two isoforms(alpha and beta) are encoded by a single transcript from this gene.

Images

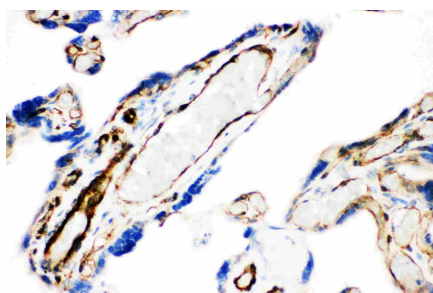
Anti- Caveolin-1 picoband antibody, ABO11861, Western blottingAll lanes: Anti Caveolin-1 (ABO11861) at 0.5ug/mlWB: Recombinant Human Caveolin-1 Protein



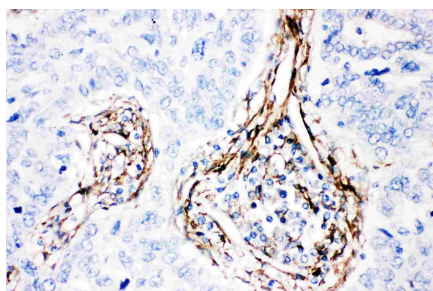
0.5ng Predicted bind size: 40KD Observed bind size: 40KD



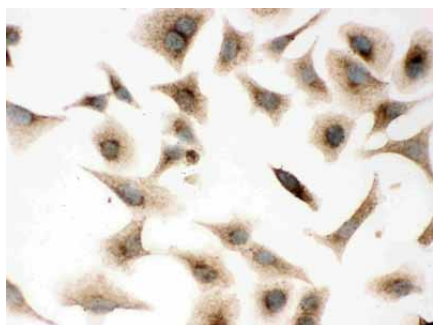
Anti- Caveolin-1 picoband antibody, ABO11861, Western blotting
All lanes: Anti Caveolin-1 (ABO11861) at 0.5ug/ml
Lane 1: Hela Whole Cell Lysate at 40ug
Lane 2: HT1080 Whole Cell Lysate at 40ug
Lane 3: Human Placenta Tissue Lysate at 50ug
Lane 4: A431 Whole Cell Lysate at 40ug
Predicted bind size: 21KD Observed bind size: 21KD



Anti- Caveolin-1 picoband antibody, ABO11861, IHC(P)
IHC(P): Human Placenta Tissue



Anti- Caveolin-1 picoband antibody, ABO11861, IHC(P)
IHC(P): Human Lung Cancer Tissue



Anti- Caveolin-1 picoband antibody, ABO11861, ICC
A549 Cell

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