10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Caveolin-1 Picoband Antibody

Catalog # ABO11861

Specification

Anti-Caveolin-1 Picoband Antibody - Product Information

Application	**WB, IHC, 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.

Anti-Caveolin-1 Picoband Antibody - Additional Information

Gene ID 857

Other Names
Caveolin-1, CAV1, CAV

Calculated MW
20472 MW KDa

Application Details
Immunocytochemistry , 0.5-1 µg/ml, Human, -
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Human, Mouse, -
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/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.

Protein Name
Caveolin-1

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

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.

Anti-Caveolin-1 Picoband Antibody - 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).

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} Note=Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae

Tissue Location
Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

Anti-Caveolin-1 Picoband Antibody - Protocols

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

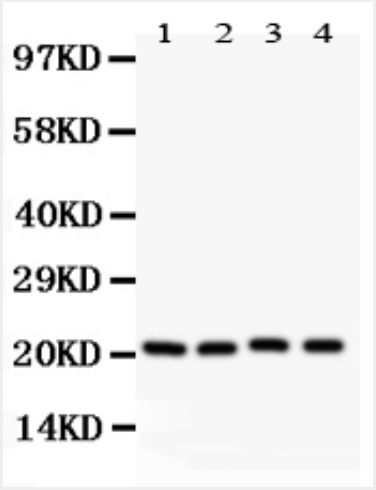
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- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Caveolin-1 Picoband Antibody - Images

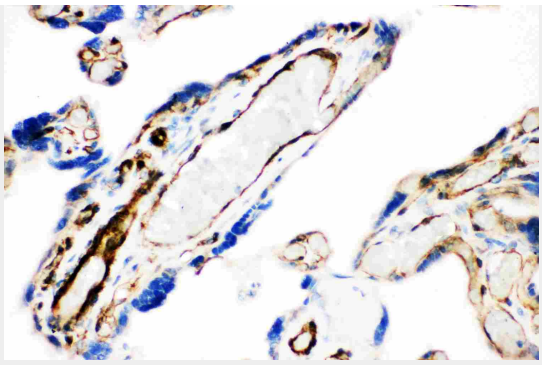


Anti- Caveolin-1 picoband antibody, ABO11861, Western blottingAll lanes: Anti Caveolin-1 (ABO11861) at 0.5ug/mlWB: Recombinant Human Caveolin-1 Protein 0.5ngPredicted bind size: 40KDObserved bind size: 40KD

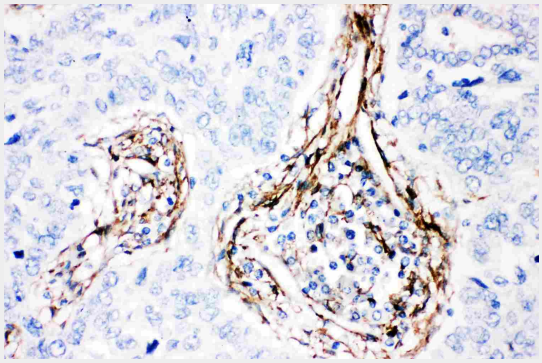


Anti- Caveolin-1 picoband antibody, ABO11861, Western blottingAll lanes: Anti Caveolin-1 (ABO11861) at 0.5ug/mlLane 1: Hela Whole Cell Lysate at 40ugLane 2: HT1080 Whole Cell Lysate at 40ugLane 3: Human Placenta Tissue Lysate at 50ugLane 4: A431 Whole Cell Lysate at 40ugPredicted bind size: 21KDObserved bind size: 21KD

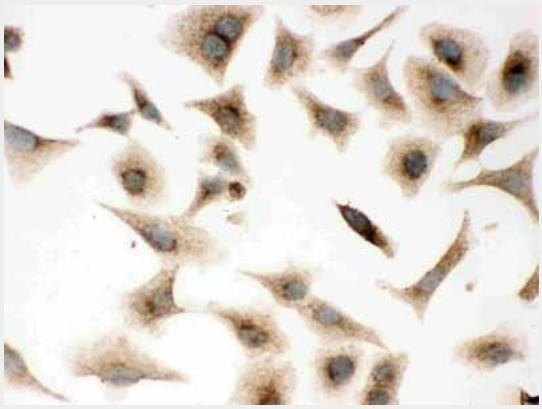
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Anti- Caveolin-1 picoband antibody, ABO11861, IHC(P)IHC(P): Human Placenta Tissue



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



Anti- Caveolin-1 picoband antibody, ABO11861, ICCICC: A549 Cell

Anti-Caveolin-1 Picoband Antibody - 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.