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Caveolin-1 Antibody

Rabbit mAb
Catalog # AP90088

Product Information

Application	WB, IHC, IF, FC, ICC, IHF
Primary Accession	Q03135
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	BSCL3; CGL3; caveolin 1, caveolae protein, 22kDa; Caveolin-1; VIP21; CAV; CAV1.
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	20472

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:20
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Caveolin-1
Description	Caveolin-1 may act as a scaffolding protein within caveolar membranes. 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. Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

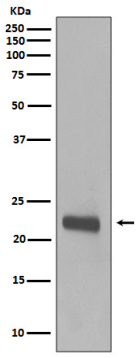
Cellular Location

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

Images



Western blot analysis of Caveolin-1 expression in A431 cell lysate.

Image not found : 202311/AP90088-IHC.jpg

Immunohistochemical analysis of paraffin-embedded mouse lung, using Caveolin-1 Antibody.

Image not found : 202311/AP90088-IF.jpg

Immunofluorescent analysis of A431 cells, using Caveolin-1 Antibody .

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