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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

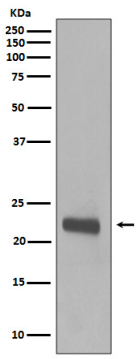
Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:20
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Caveolin-1
Description	Caveolin-1 may act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and 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} 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

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 .