

## Caveolin-1 Antibody

Purified Rabbit Polyclonal Antibody Catalog # ABV11669

## **Specification**

# **Caveolin-1 Antibody - Product Information**

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW WB, IF <u>003135</u> Human, Mouse, Rat Rabbit Polyclonal Rabbit IgG 20472

## **Caveolin-1 Antibody - Additional Information**

Gene ID 857

Other Names CAV1, CAV

Target/Specificity Caveolin-1

**Formulation** 50 µl supplied in PBS (pH 7.4) with 150mM NaCl, 0.02% sodium azide and 50% glycerol

Handling The antibody solution should be gently mixed before use.

**Background Descriptions** 

**Precautions** Caveolin-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Caveolin-1 Antibody - Protein Information

Name CAV1

Synonyms CAV

### Function

May act as a scaffolding protein within caveolar membranes (PubMed:<a href="http://www.uniprot.org/citations/11751885" target="\_blank">11751885</a>). 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:<a



href="http://www.uniprot.org/citations/19262564" target="\_blank">19262564</a>). 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:<a href="http://www.uniprot.org/citations/17287217" target="\_blank">17287217</a>). 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:<a href="http://www.uniprot.org/citations/25893292" target="\_blank">25893292</a>). 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**

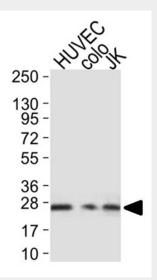
Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

## Caveolin-1 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

## Caveolin-1 Antibody - Images



Western blot analysis in HUVEC, Nolo and Jurkat cell lysate using anti-Caveolin-1 antibody.





Immunofluorescent staining of HUVEC cells using anti-Caveolin-1 antibody.

# Caveolin-1 Antibody - Background

May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity. 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.