

# CAV1 / Caveolin 1 Antibody (Internal)

Goat Polyclonal Antibody Catalog # ALS11282

# Specification

# CAV1 / Caveolin 1 Antibody (Internal) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IHC <u>003135</u> Human, Monkey Goat Polyclonal 20kDa KDa

# CAV1 / Caveolin 1 Antibody (Internal) - Additional Information

Gene ID 857

Other Names Caveolin-1, CAV1, CAV

**Target/Specificity** Human CAV1 / Caveolin. No cross-reactivity expected to Caveolin 2 and Caveolin 3

**Reconstitution & Storage** Store at -20°C. Minimize freezing and thawing.

**Precautions** CAV1 / Caveolin 1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

# CAV1 / Caveolin 1 Antibody (Internal) - 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**

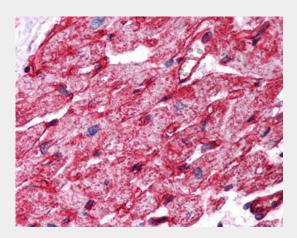
Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

# CAV1 / Caveolin 1 Antibody (Internal) - 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>

CAV1 / Caveolin 1 Antibody (Internal) - Images



Anti-CAV1 / Caveolin antibody IHC of human heart.

#### CAV1 / Caveolin 1 Antibody (Internal) - Background

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.

# CAV1 / Caveolin 1 Antibody (Internal) - References

Glenney J.R. Jr., et al.FEBS Lett. 314:45-48(1992). Hurlstone A.F., et al.Oncogene 18:1881-1890(1999). Engelman J.A., et al.FEBS Lett. 448:221-230(1999). Kalnine N., et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases. Vainonen J.P., et al.Biochem. Biophys. Res. Commun. 320:480-486(2004).