

CAV1 / Caveolin 1 Antibody (aa1-104)

Rabbit Polyclonal Antibody Catalog # ALS16362

Specification

CAV1 / Caveolin 1 Antibody (aa1-104) - Product Information

Application WB, IHC
Primary Accession O03135
Reactivity Mouse
Host Rabbit
Clonality Polyclonal
Calculated MW 20kDa KDa

CAV1 / Caveolin 1 Antibody (aa1-104) - Additional Information

Gene ID 857

Other Names

Caveolin-1, CAV1, CAV

Target/Specificity

Mouse CAV1 / Caveolin 1

Reconstitution & Storage

Store frozen product at or below -20°C. Thawed product may be stored for 2-4 weeks at 4°C. For optimal storage, aliquot to smaller portions and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Precautions

CAV1 / Caveolin 1 Antibody (aa1-104) is for research use only and not for use in diagnostic or therapeutic procedures.

CAV1 / Caveolin 1 Antibody (aa1-104) - 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:<a href="http://www.uniprot.org/citations/17287217"



target="_blank">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

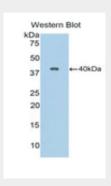
Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

CAV1 / Caveolin 1 Antibody (aa1-104) - Protocols

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

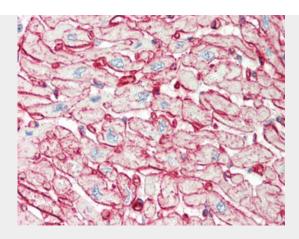
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

CAV1 / Caveolin 1 Antibody (aa1-104) - Images



Western blot of recombinant CAV1 / Caveolin 1.





Human Heart: Formalin-Fixed, Paraffin-Embedded (FFPE)

CAV1 / Caveolin 1 Antibody (aa1-104) - 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 (aa1-104) - 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).