

Caveolin-1 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50008

Specification

Caveolin-1 Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | IF, WB |
| Primary Accession | O03135 |
| Reactivity | Human, Mouse, Rat |
| Host | Rabbit |
| Clonality | Polyclonal |
| Calculated MW | 20,17 KDa |
| Antigen Region | 150-178 |

Caveolin-1 Antibody - Additional Information

Gene ID 857

Other Names

Caveolin-1, CAV1, CAV

Dilution

IF~~1:100

WB~~ 1:1000

Format

Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

Storage Conditions

-20°C

Caveolin-1 Antibody - 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)

target="_blank">17287217). Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway (By similarity). Negatively regulates TGF β 1-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

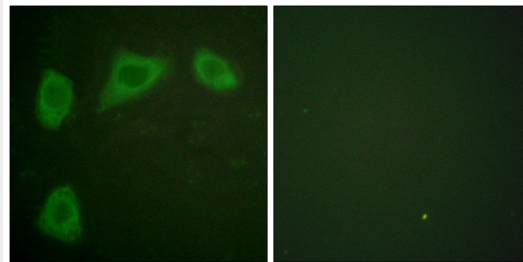
Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

Caveolin-1 Antibody - Protocols

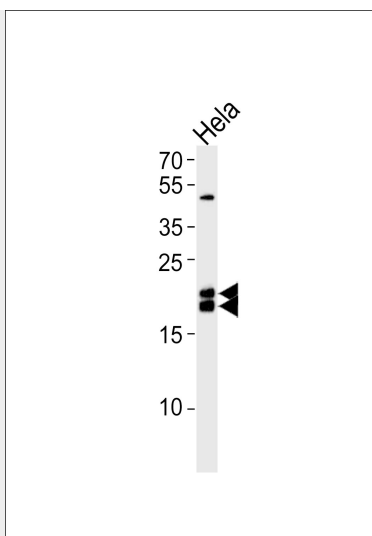
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

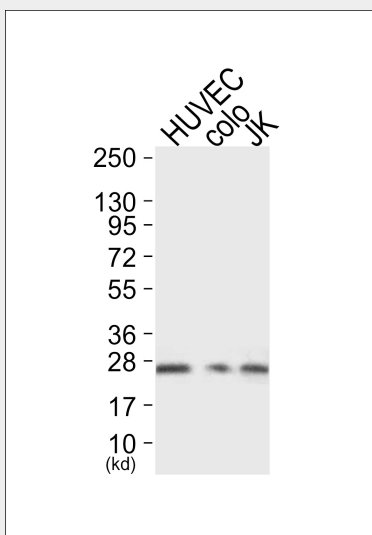
Caveolin-1 Antibody - Images



Immunofluorescence analysis of HuvEc cells, using Caveolin-1 antibody.



Western blot analysis of lysate from HeLa cell line, using Caveolin-1 Antibody(C0139). C0139 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.



Western blot analysis of extracts from HUVEC cells (Lane 1), colo cells (Lane 2) and JK cells (Lane 3), using Caveolin-1 Antibody. The lane on the left is treated with synthesized peptide.

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 (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.

Caveolin-1 Antibody - References

Glennay 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).
Kalnina 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).