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Anti-Caveolin-1 (RABBIT) Antibody
Caveolin-1 Antibody
Catalog # ASR5709

Specification

Anti-Caveolin-1 (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Polyclonal**
Application	**WB, E, I, LCI**
Application Note	**Anti-Caveolin1 antibody has been tested in WB and is useful for ELISA and Immunohistochemistry. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~21kDa corresponding to the appropriate cell lysate or extract.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Anti-Caveolin 1 affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide near the N-terminus of human Caveolin-1 protein.**
Stabilizer	**30% Glycerol**

Anti-Caveolin-1 (RABBIT) Antibody - Additional Information

Gene ID 857

Purity
Anti-Caveolin 1 was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross-reactivity with lemur, sheep, bat, rat, rabbit, pig, and primate based on 100% sequence homology. Cross-reactivity with Caveolin 1 from other sources has not been determined.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Caveolin-1 (RABBIT) 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). 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

Anti-Caveolin-1 (RABBIT) 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 Cytomety
- Cell Culture

Anti-Caveolin-1 (RABBIT) Antibody - Images

Anti-Caveolin-1 (RABBIT) Antibody - Background

Caveolin 1 is a ubiquitous protein found within the membranes of caveolea, theoretically acting as a scaffolding protein. Direct interaction with G-protein alpha subunits allows regulation of their activity. A regulatory protein, it is involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation, and is also a factor in the regulation of CTNNB1-mediated signaling through the Wnt pathway. Expressed in the muscle and lung tissues predominantly, defects in CAV1 is the cause of congenital generalized lipodystrophy type 3, or autosomal recessive disorders such as adipose tissue, extreme insulin resistance, hypertriglyceridemia, hepatic steatosis and early onset diabetes. Anti-Caveolin 1 antibody is ideal for researchers in Metabolism, Cancer,

Signal Transduction, and Cardiovascular research.