

**Anti-Caveolin-1 (RABBIT) Antibody**  
**Caveolin-1 Antibody**  
**Catalog # ASR5708****Specification**

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**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 western blot 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 at 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 sheep, primate, bat, rat, rabbit, mouse, elephant, horse, human, cat, armadillo, and hedgehog 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:<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 TGF $\beta$ 1-mediated activation of SMAD2/3 by mediating the internalization of TGF $\beta$ 1 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

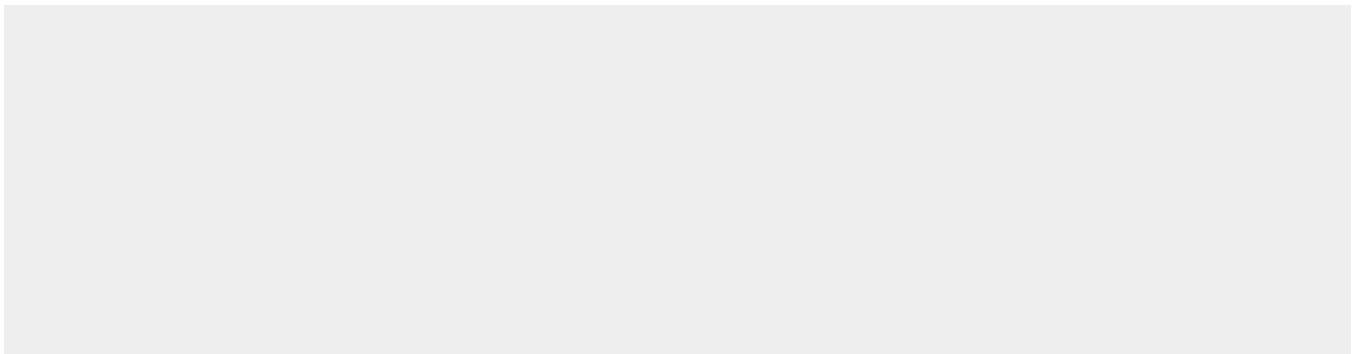
**Tissue Location**

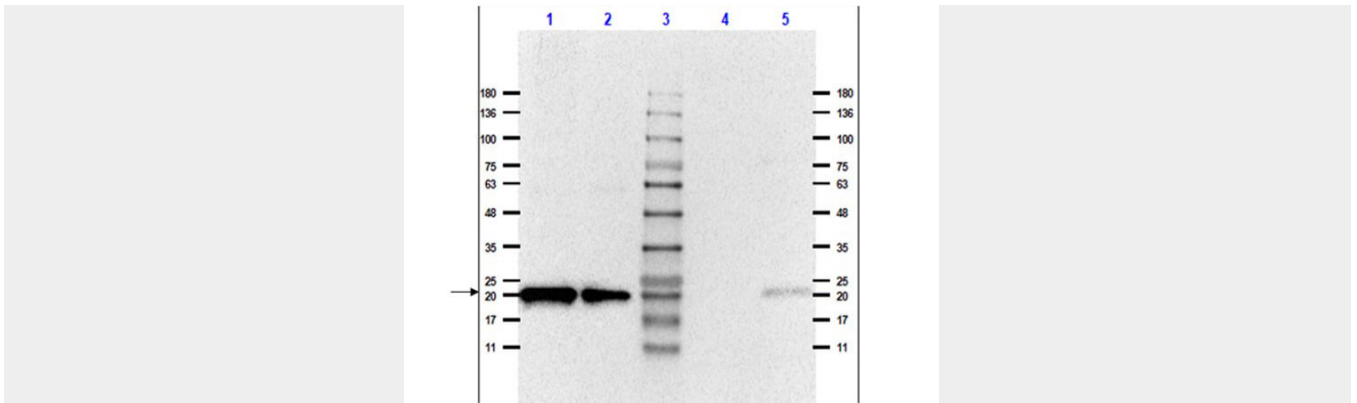
Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

**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 Cytometry](#)
- [Cell Culture](#)

**Anti-Caveolin-1 (RABBIT) Antibody - Images**



Western Blot of Rabbit Anti-Caveolin 1 Antibody. Lane 1: PG13 Whole Cell Lysate - Reduced [5 µg]. Lane 2: PG13 Whole Cell Lysate - Reduced [1 µg]. Lane 3: Opal Prestained MW Marker Lane 4: PG13 Cytosolic Extract - Reduced [1 µg]. Lane 5: PG13 Cytosolic Extract - Reduced [5 µg]. Primary Antibody: Anti-Caveolin-1 at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Rabbit IgG Peroxidase Conjugated (p/n 611-103-122) at 1:70,000 for 1 hour at RT. Block: BlockOut Blocking Buffer (p/n MB-073) overnight at 2-8°C. Predicted MW: ~21kDa. Exposure: 5 sec.

### **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.