

Goat Anti-Caveolin 1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1200a**Specification**

Goat Anti-Caveolin 1 Antibody - Product Information

Application	WB, ICC, E
Primary Accession	Q03135
Other Accession	NP_001744 , 857 , 12389 (mouse) , 25404 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	20472

Goat Anti-Caveolin 1 Antibody - Additional Information**Gene ID** 857**Other Names**

Caveolin-1, CAV1, CAV

Dilution

WB~~1:1000

ICC~~N/A

E~~N/A

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-Caveolin 1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-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). Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway (By similarity). Negatively regulates TGFBR1-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

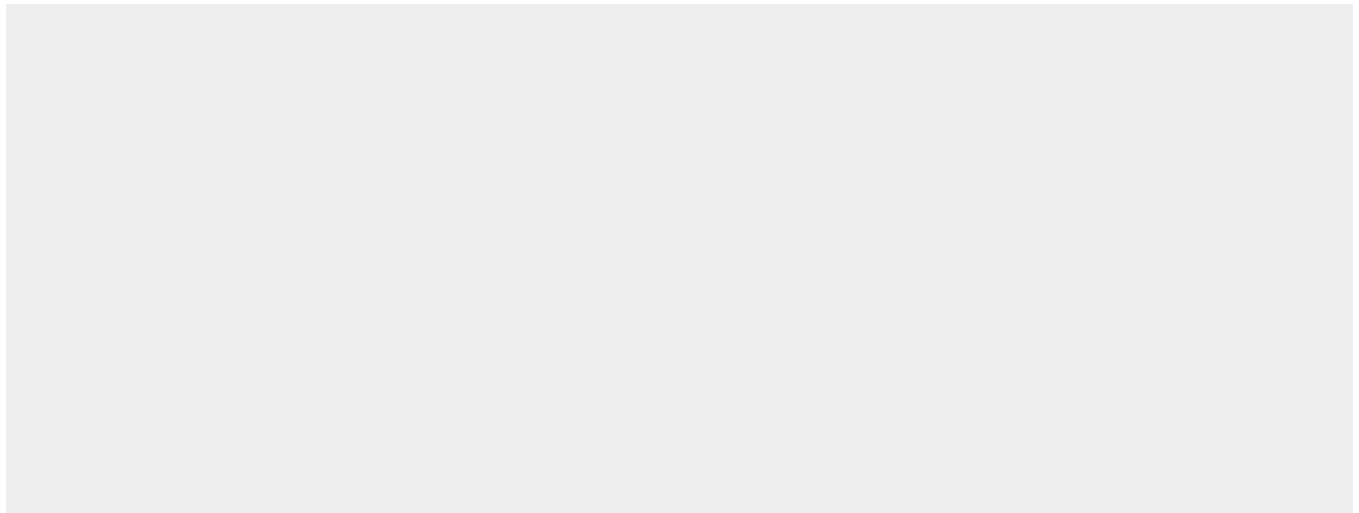
Tissue Location

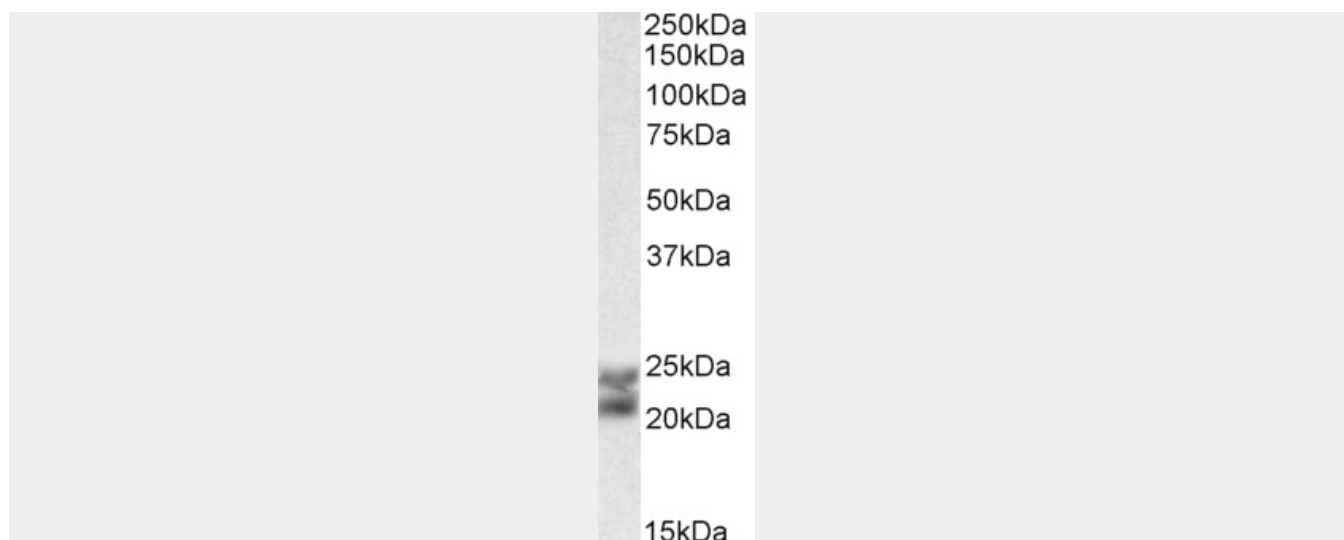
Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

Goat Anti-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](#)

Goat Anti-Caveolin 1 Antibody - Images



AF1200a (0.01 µg/ml) staining of Human Spleen lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-Caveolin 1 Antibody - Background

The scaffolding protein encoded by this gene is the main component of the caveolae plasma membranes found in most cell types. The protein links integrin subunits to the tyrosine kinase FYN, an initiating step in coupling integrins to the Ras-ERK pathway and promoting cell cycle progression. The gene is a tumor suppressor gene candidate and a negative regulator of the Ras-p42/44 mitogen-activated kinase cascade. Caveolin 1 and caveolin 2 are located next to each other on chromosome 7 and express colocalizing proteins that form a stable hetero-oligomeric complex. Mutations in this gene have been associated with Berardinelli-Seip congenital lipodystrophy. Alternatively spliced transcripts encode alpha and beta isoforms of caveolin 1.

Goat Anti-Caveolin 1 Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

Involvement of caveolin in low K⁺-induced endocytic degradation of cell-surface human ether-a-go-go-related gene (hERG) channels. Massaeli H, et al. J Biol Chem, 2010 Aug 27. PMID 20605793.

Proinflammatory phenotype and increased caveolin-1 in alveolar macrophages with silenced CFTR mRNA. Xu Y, et al. PLoS One, 2010 Jun 8. PMID 20543983.

Downregulation of caveolin-1 enhances fusion of human BeWo choriocarcinoma cells. Collett GP, et al. PLoS One, 2010 May 6. PMID 20463894.

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