

Rabbit Caveolin-1 Polyclonal Antibody | anti-CAV1 antibody

Caveolin-1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA320775	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

Caveolin-1; Polyclonal Antibody; Caveolin-1 Antibody; BSCL3; CAV; CAV1; CAV1_HUMAN; caveolae protein; 22 kD; caveolin 1 alpha isoform; caveolin 1 beta isoform; Caveolin 1 caveolae protein 22kDa; Caveolin1; cell growth-inhibiting protein 32; CGL3; LCCNS; MSTP085; OTTHUMP00000025031; PPH3; VIP 21; VIP21; anti-CAV1 antibody

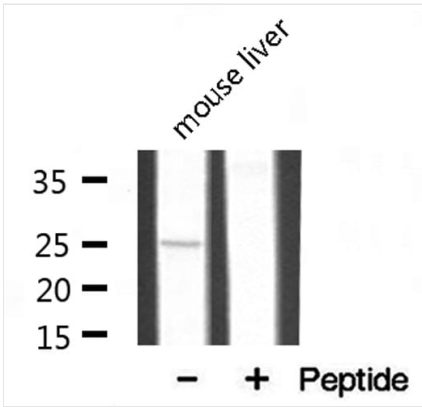
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Caveolin-1 antibody detects endogenous levels of total Caveolin-1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	178
Applicable Applications for anti-CAV1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Caveolin-1
Subcellular Location	Golgi Apparatus Membrane. Cell Membrane. Membrane > Caveola. Membrane Raft. Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae.
Tissue Specificity	Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

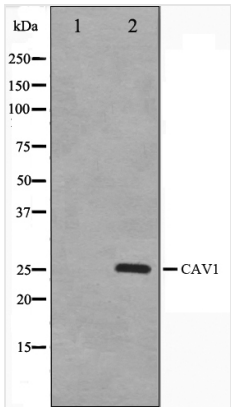


IF (Immunofluorescence)

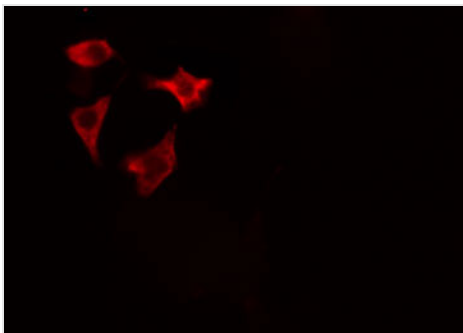
AAA320775 staining HuvEc cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



WB (Western Blot)
Western blot analysis on mouse liver lysate using Caveolin-1 Antibody



WB (Western Blot)
Western blot analysis on HuvEc cell lysate using Caveolin-1 Antibody, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)
AAA320775 staining A549 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-CAV1 antibody	Description: Caveolin-1 May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity. 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. Belongs to the caveolin family. Homooligomer. Interacts with GLIPR2, NOSTRIN, SNAP25 and syntaxin. Interacts with rotavirus A NSP4. Function: 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. Negatively regulates TGFβ1-mediated activation of SMAD2/3 by mediating the internalization of TGFβR1 from membrane rafts leading to its subsequent degradation (PubMed:25893292). Mediates the recruitment of CAVIN proteins (CAVIN1/2/3/4) to the caveolae (PubMed:19262564). Subunit Structure: Homooligomer (PubMed:25588833). Interacts with GLIPR2 (PubMed:11865038). Interacts with NOSTRIN (PubMed:16807357). Interacts with SNAP25 and STX1A (By similarity). Interacts with rotavirus A NSP4 (PubMed:16501093). Interacts (via the N-terminus) with DPP4; the interaction is direct (PubMed:17287217). Interacts with CTNNB1, CDH1 and JUP. Interacts with PACSIN2. Interacts with SLC7A9 (By similarity). Interacts with BMX and BTK (PubMed:11751885). Interacts with TGFβR1 (PubMed:25893292). Interacts with CAVIN3 (via leucine-zipper domain) in a cholesterol-sensitive manner (PubMed:25588833, PubMed:19262564). Interacts with CAVIN1 (PubMed:25588833). Interacts with EHD2 in a cholesterol-dependent manner (PubMed:25588833). Forms a ternary complex with UBXN6 and VCP; mediates CAV1 targeting to lysosomes for degradation (PubMed:21822278, PubMed:23335559). Post-translational Modifications: Ubiquitinated. Undergo monoubiquitination and multi-and/or polyubiquitination (PubMed:21822278). Monoubiquitination of N-terminal lysines promotes integration in a ternary complex with UBXN6 and VCP which promotes oligomeric CAV1 targeting to lysosomes for degradation (PubMed:23335559). The initiator methionine for isoform 2 is removed during or just after translation. The new N-terminal amino acid is then N-Acetylated. Phosphorylated at Tyr-14 by ABL1 in response to oxidative stress. Similarity: Belongs to the caveolin family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	15451856
NCBI GeneID	857
NCBI Accession #	NP_001744.2
NCBI GenBank Nucleotide #	NM_001753.4
UniProt Accession #	Q03135; Q9UGP1; Q9UNG1; Q9UQH6
Molecular Weight	Observed: 25 kDa Predicted: 21 kDa
NCBI Official Full Name	caveolin-1 isoform alpha
NCBI Official Synonym Full Names	caveolin 1
NCBI Official Symbol	CAV1
NCBI Official Synonym Symbols	CGL3; PPH3; BSCL3; LCCNS; VIP21; MSTP085
NCBI Protein Information	caveolin-1
UniProt Protein Name	Caveolin-1
UniProt Gene Name	CAV1
UniProt Synonym Gene Names	CAV

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

