

ARG42496 anti-Caveolin 1 antibody

Package: 100 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes Caveolin 1
Tested Reactivity	Hu, Ms, Rat, Dog, Mk
Tested Application	ICC/IF, IHC-Fr, IHC-P, WB
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	Caveolin 1
Species	Human
Immunogen	Recombinant peptide within aa. 100 to the N-terminus of Human Caveolin 1.
Conjugation	Un-conjugated
Alternate Names	CGL3; LCCNS; PPH3; MSTP085; VIP21; BSCL3; Caveolin-1

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:25 - 1:250
	IHC-Fr	1:200 - 1:1000
	IHC-P	1:200 - 1:1000
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HaCaT	
Observed Size	~ 26 kDa	

Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.05% Sodium azide and 20% Glycerol.
Preservative	0.05% Sodium azide
Stabilizer	20% Glycerol
Concentration	2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

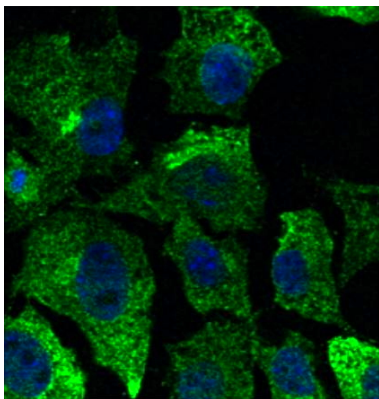
and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CAV1
Gene Full Name	caveolin 1, caveolae protein, 22kDa
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. [provided by RefSeq, Mar 2010]
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). [UniProt]
Calculated Mw	20 kDa
PTM	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. [UniProt]
Cellular Localization	Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Membrane raft. Golgi apparatus, trans-Golgi network. Note=Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae. [UniProt]

Images



ARG42496 anti-Caveolin 1 antibody ICC/IF image

Immunofluorescence: Hepa1-6 cells were fixed with 4% PFA. Cells were stained with ARG42496 anti-Caveolin 1 antibody (green) at 1:50 dilution. Nuclear staining (blue).

ARG42496 anti-Caveolin 1 antibody WB image

Western blot: 100 µg of HaCaT cell lysate stained with ARG42496 anti-Caveolin 1 antibody at 1:1000 dilution.

