

**ARG42497**  
anti-Caveolin 2 antibodyPackage: 100 µg  
Store at: -20°C

### Summary

Product Description	Goat Polyclonal antibody recognizes Caveolin 2
Tested Reactivity	Hu, Ms, Rat, Dog, Mk
Tested Application	ICC/IF, WB
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	Caveolin 2
Species	Human
Immunogen	Recombinant peptide within aa. 50 to the N-terminus of Human Caveolin 2.
Conjugation	Un-conjugated
Alternate Names	Caveolin-2; CAV

### Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	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	~ 20 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	3 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.

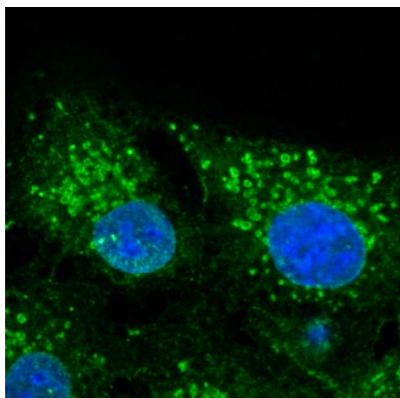
Note For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

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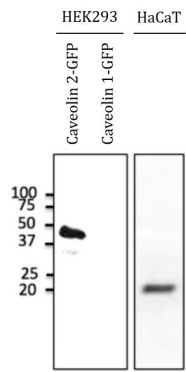
Gene Symbol	CAV2
Gene Full Name	caveolin 2
Background	The protein encoded by this gene is a major component of the inner surface of caveolae, small invaginations of the plasma membrane, and is involved in essential cellular functions, including signal transduction, lipid metabolism, cellular growth control and apoptosis. This protein may function as a tumor suppressor. This gene and related family member (CAV1) are located next to each other on chromosome 7, and express colocalizing proteins that form a stable hetero-oligomeric complex. Alternatively spliced transcript variants encoding different isoforms have been identified for this gene. Additional isoforms resulting from the use of alternate in-frame translation initiation codons have also been described, and shown to have preferential localization in the cell (PMID:11238462). [provided by RefSeq, May 2011]
Function	May act as a scaffolding protein within caveolar membranes. Interacts directly with G-protein alpha subunits and can functionally regulate their activity. Acts as an accessory protein in conjunction with CAV1 in targeting to lipid rafts and driving caveolae formation. The Ser-36 phosphorylated form has a role in modulating mitosis in endothelial cells. Positive regulator of cellular mitogenesis of the MAPK signaling pathway. Required for the insulin-stimulated nuclear translocation and activation of MAPK1 and STAT3, and the subsequent regulation of cell cycle progression (By similarity). [UniProt]
Calculated Mw	18 kDa
PTM	Phosphorylated on serine and tyrosine residues. CAV1 promotes phosphorylation on Ser-23 which then targets the complex to the plasma membrane, lipid rafts and caveolae. Phosphorylation on Ser-36 appears to modulate mitosis in endothelial cells (By similarity). Phosphorylation on both Tyr-19 and Tyr-27 is required for insulin-induced 'Ser-727' phosphorylation of STAT3 and its activation. Phosphorylation on Tyr-19 is required for insulin-induced phosphorylation of MAPK1 and DNA binding of STAT3. Tyrosine phosphorylation is induced by both EGF and insulin (By similarity). [UniProt]
Cellular Localization	Nucleus. Cytoplasm. Golgi apparatus membrane. Cell membrane. Membrane, caveola. Note=Potential hairpin-like structure in the membrane. Membrane protein of caveolae. pTyr19 form is enriched at sites of cell-cell contact and is translocated to the nucleus in complex with MAPK1 in response to insulin. pTyr27 form is located both in the cytoplasm and plasma membrane. CAV1-mediated pSer23 form locates to the plasma membrane. pSer36 form resides in intracellular compartments. [UniProt]

## Images



ARG42497 anti-Caveolin 2 antibody ICC/IF image

Immunofluorescence: NIH/3T3 cells were fixed with methanol and permeabilized with 0.1% Saponin. Cells were stained with ARG42497 anti-Caveolin 2 antibody (green) at 1:100 dilution. Nuclear staining (blue).



### ARG42497 anti-Caveolin 2 antibody WB image

Western blot: Caveolin 2-GFP or Caveolin 1-GFP transfected HEK293 cells and HaCaT cells. 50  $\mu$ g of transfected HEK293 and 100  $\mu$ g of HaCaT cell lysates stained with ARG42497 anti-Caveolin 2 antibody at 1:1000 dilution.