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CAV2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5297

Product Information

Application	IF, FC, IHC-P, WB
Primary Accession	P51636
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	18291
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	858
Antigen Region	11-44
Other Names	CAV2; Caveolin-2
Dilution	IF~~1:10~50 FC~~1:10~50 IHC-P~~1:100~500 WB~~1:1000
Target/Specificity	This CAV2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 11-44 amino acids from the N-terminal region of human CAV2.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CAV2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CAV2
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).
Cellular Location	Nucleus. Cytoplasm. Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Note=Potential hairpin-like structure in the membrane. Membrane protein of caveolae Tyr-19-phosphorylated form is enriched at sites of cell-cell contact and is translocated to the nucleus in complex with MAPK1 in response to insulin (By similarity). Tyr-27-phosphorylated form is located both in the cytoplasm and plasma membrane. CAV1-mediated Ser-23-phosphorylated form locates to the plasma membrane. Ser-36-phosphorylated form resides in intracellular compartments.
Tissue Location	Expressed in endothelial cells, smooth muscle cells, skeletal myoblasts and fibroblasts

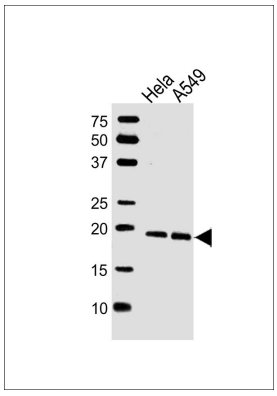
Background

CAV2 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.

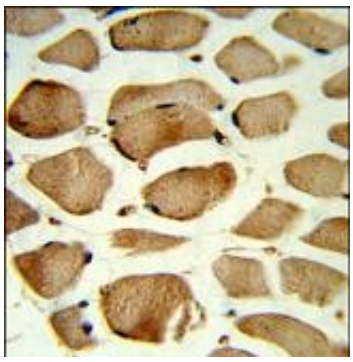
References

Murata,M., et.al., Proc. Natl. Acad. Sci. U.S.A. 92 (22), 10339-10343 (1995)
Ando,T., et.al., Oncol. Rep. 18 (3), 601-609 (2007)

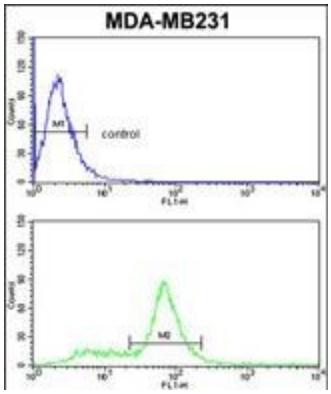
Images



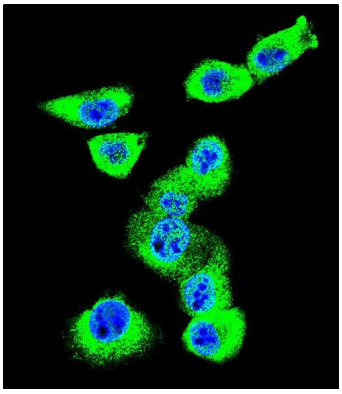
Western blot analysis of lysates from Hela,A549 cell line (from left to right), using CAV2 Antibody (N-term)(Cat. #AW5297). AW5297 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



Formalin-fixed and paraffin-embedded human skeletal muscle reacted with CAV2 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



CAV2 Antibody (N-term) (Cat. #AW5297) flow cytometric analysis of MDA-MB231 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Confocal immunofluorescent analysis of CAV2 Antibody (N-term)(Cat#AW5297) with MDA-MB231 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).