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phospho-Caveolin-2 (Tyr19) Rabbit pAb

Catalog # AP97001

Product Information

Application	WB
Primary Accession	Q9WVC3
Other Accession	Q9WVC3
Reactivity	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	18227
Physical State	Liquid
Immunogen	KLH conjugated Synthesised phosphopeptide derived from mouse Caveolin2 around the phosphorylation site of Tyr19.
Epitope Specificity	DA(p-Y)SH
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the caveolin family.
SUBUNIT	Monomer or homodimer. Interacts with CAV1; theinteraction forms a stable heterooligomeric complex that isrequired for targeting to lipid rafts and for caveolae formation.Tyrosine phosphorylated forms do not form heterooligomers with theTyr-19-phosphorylated form existing as a monomer or dimer, and theTyr-27-form as a monomer only. Interacts (tyrosine phosphorylatedform) with the SH2 domain-containing proteins, RASA1, NCK1 and SRC.Interacts (tyrosine phosphorylated form) with INSR, the interaction(Tyr-27-phosphorylated form) is increased on insulin stimulation.Interacts (Tyr-19 phosphorylated form) with MAPK1 (phosphorylatedform); the interaction, promoted by insulin, leads to nuclearlocation and MAPK1 activation. Interacts with STAT3; theinteraction is increased on insulin-induced tyrosinephosphorylation leading to STAT activation (By similarity).
Post-translational modifications	Phosphorylated on serine and tyrosine residues. CAV1 promotesphosphorylation on Ser-23 which then targets the complex to theplasma membrane, lipid rafts and caveolae. Phosphorylation onSer-36 appears to modulate mitosis in endothelial cells (Bysimilarity). Phosphorylation on both Tyr-19 and Tyr-27 is requiredfor insulin-induced 'Ser-727' phosphorylation of STAT3 and itsactivation. Phosphorylation on Tyr-19 is required forinsulin-induced phosphorylation of MAPK1 and DNA binding of STAT3.Tyrosine phosphorylation is induced by both EGF and insulin (Bysimilarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Cellular localization: Nucleus. Cytoplasm. Golgi apparatus membrane. Cell membrane. Membrane > caveola. 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.

Additional Information

Gene ID	12390
Other Names	CAV; CAV2_HUMAN; CAV2; CAV2_MOUSE; CAV2_RAT; caveolin 2; CAV2 | Caveolin-2 (phospho-Y19); p-Caveolin-2; phospho-Caveolin-2; p-CAV2; CAV2 | Caveolin-2 (phospho-Tyr19)
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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. 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 (By similarity).

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