

Rabbit Caveolin 2 Polyclonal Antibody | anti-CAV2 antibody

Phospho-Caveolin 2 (Tyr19) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329686	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (92%), Bovine (85%), Sheep (85%), Rabbit (92%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

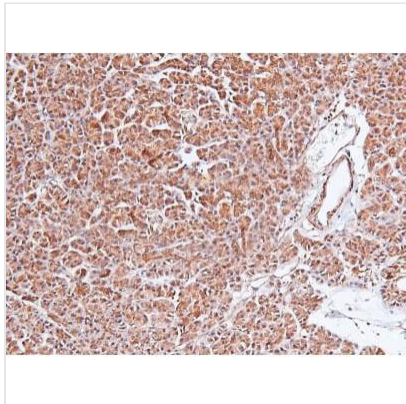
Caveolin 2; Polyclonal Antibody; Phospho-Caveolin 2 (Tyr19) Antibody; CAV; CAV2; CAV2_HUMAN; Caveolae protein 20KD; Caveolin 2 isoform a and b; Caveolin-2; MGC12294; OTTHUMP00000025032; OTTHUMP00000195982; anti-CAV2 antibody

PRODUCT SPECIFICATIONS

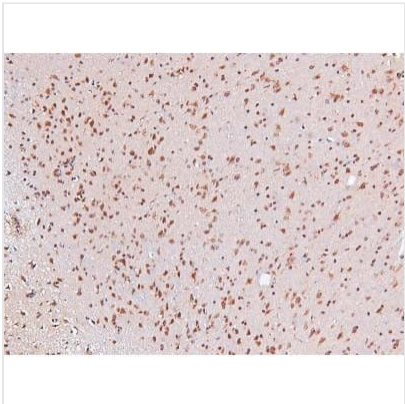
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (92%), Bovine (85%), Sheep (85%), Rabbit (92%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-Caveolin 2 (Tyr19) Antibody detects endogenous levels of Caveolin 2 only when phosphorylated at Tyr19. Tissue Specificity: Expressed in endothelial cells, smooth muscle cells, skeletal myoblasts and fibroblasts.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-CAV2 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Caveolin 2 around the phosphorylation site of Tyr19.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	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).
Subunit Structure	Monomer or homodimer. Interacts with CAV1; the interaction forms a stable heterooligomeric complex that is required for targeting to lipid rafts and for caveolae formation. Tyrosine phosphorylated forms do not form heterooligomers with the Tyr-19-phosphorylated form existing as a monomer or dimer, and the Tyr-27-form as a monomer only. Interacts (tyrosine phosphorylated form) 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 (phosphorylated form); the interaction, promoted by insulin, leads to nuclear location and MAPK1 activation. Interacts with STAT3; the interaction is increased on insulin-induced tyrosine phosphorylation leading to STAT activation (By similarity).
Similarity	Belongs to the caveolin family.

Subcellular 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.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

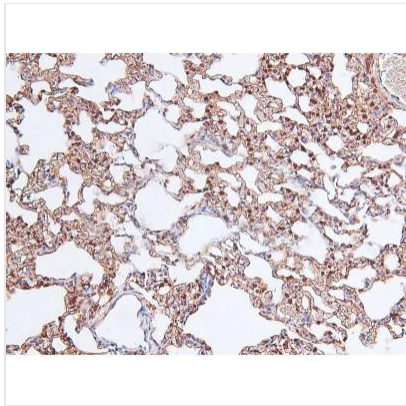
IMAGES



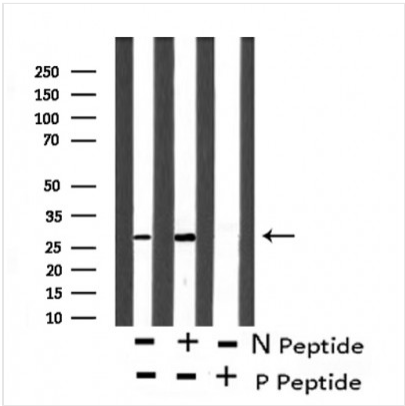
IHC (Immunohistochemistry)
 At 1/200 staining Human pancreas tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemisry)
 At 1/200 staining Mouse brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)
 Staining Rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



WB (Western Blot)
 Western blot analysis of Caveolin 2 (Phospho-Tyr19) using UV treated Jurkat whole cell lysates. -/+ means absence or presence of N peptide?non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-CAV2 antibody	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).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	332164664
NCBI GeneID	858
NCBI Accession #	NP_001193676.1
NCBI GenBank Nucleotide #	NM_001206747.1
UniProt Accession #	P51636; Q9UGM7; A4D0U2
Molecular Weight	18,291 Da
NCBI Official Full Name	caveolin-2 isoform b
NCBI Official Synonym Full Names	caveolin 2
NCBI Official Symbol	CAV2
NCBI Official Synonym Symbols	CAV
NCBI Protein Information	caveolin-2; caveolae protein, 20-kD; caveolin 2 isoform a and b
UniProt Protein Name	Caveolin-2
UniProt Gene Name	CAV2
UniProt Entry Name	CAV2_HUMAN

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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/caveolin-2-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329686>