

**CAV2 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8645a****Specification**

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**CAV2 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P51636](#)**CAV2 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 858**Other Names**

Caveolin-2, CAV2

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8645a](/products/AP8645a) was selected from the N-term region of human CAV2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**CAV2 Antibody (N-term) Blocking Peptide - 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

**CAV2 Antibody (N-term) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**CAV2 Antibody (N-term) Blocking Peptide - Images****CAV2 Antibody (N-term) Blocking Peptide - 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.

**CAV2 Antibody (N-term) Blocking Peptide - 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)