

**CAV1 Antibody (Y14) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7767a****Specification****CAV1 Antibody (Y14) Blocking Peptide - Product Information**Primary Accession [Q03135](#)**CAV1 Antibody (Y14) Blocking Peptide - Additional Information****Gene ID** 857**Other Names**

Caveolin-1, CAV1, CAV

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7767a](/products/AP7767a) was selected from the Y14 region of human CAV1. 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.

**CAV1 Antibody (Y14) Blocking Peptide - Protein Information****Name** CAV1**Synonyms** CAV**CAV1 Antibody (Y14) Blocking Peptide - Background**

The scaffolding protein CAV1 is the main component of the caveolae plasma membranes found in most cell types. This protein links integrin subunits to the tyrosine kinase FYN, an initiating step in coupling integrins to the Ras-ERK pathway and promoting cell cycle progression. The CAV1 gene is a tumor suppressor gene candidate and a negative regulator of the Ras-p42/44 MAP kinase cascade.

**CAV1 Antibody (Y14) Blocking Peptide - References**

Smith,J.L.,J. Virol. 82 (19), 9505-9512 (2008)Zhong,Y., J. Neurosci. 28 (31), 7788-7796 (2008)Di Vizio,D., Cell Cycle 7 (14), 2257-2267 (2008)Lee,H., J. Biol. Chem. 276 (37), 35150-35158 (2001)Schlegel,A., J. Biol. Chem. 276 (6), 4398-4408 (2001)

**Function**

May act as a scaffolding protein within caveolar membranes (PubMed:<a href="http://www.uniprot.org/citations/11751885" target="\_blank">11751885</a>). Forms a stable heterooligomeric complex with CAV2 that targets to lipid rafts and drives caveolae formation. Mediates the recruitment of CAVIN proteins (CAVIN1/2/3/4) to the caveolae (PubMed:<a href="http://www.uniprot.org/citations/19262564" target="\_blank">19262564</a>). Interacts directly with G-protein alpha subunits and can functionally regulate their activity (By similarity). Involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner (PubMed:<a href="http://www.uniprot.org/citations/17287217" target="\_blank">17287217</a>). Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway (By similarity). Negatively regulates TGFB1-mediated activation of SMAD2/3 by mediating the internalization of TGFBR1 from membrane rafts leading to its subsequent degradation (PubMed:<a href="http://www.uniprot.org/citations/25893292" target="\_blank">25893292</a>).

**Cellular Location**

Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Membrane raft. Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:P33724} Note=Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae

**Tissue Location**

Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

**CAV1 Antibody (Y14) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)