10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CAV1 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7767b

Specification

CAV1 Antibody (N-term) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	Q03135
Other Accession	P41350, Q09YN6, Q6RVA9, P49817, P79132, Q2QLB0, Q6B3Y2
Reactivity	**Human**
Predicted	**Bovine, Horse, Mouse, Pig, Rabbit, Rat, Sheep**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**20472**
Antigen Region	**2-30**

CAV1 Antibody (N-term) - Additional Information

Gene ID 857

Other Names
Caveolin-1, CAV1, CAV

Target/Specificity
This CAV1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 2-30 amino acids from the N-terminal region of human CAV1.

Dilution
FC~~1:10~50
IHC-P~~1:50~100
WB~~1:1000
E~~Use at an assay dependent concentration.

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
CAV1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CAV1 Antibody (N-term) - Protein Information

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Name CAV1

Synonyms CAV

Function May act as a scaffolding protein within caveolar membranes (PubMed:11751885). 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:19262564). 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:17287217). 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:25893292). Binds 20(S)- hydroxycholesterol (20(S)-OHC) (By similarity).

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

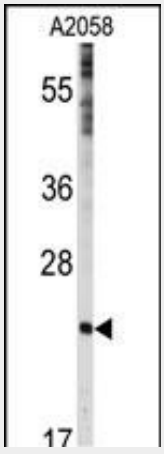
Tissue Location
Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

CAV1 Antibody (N-term) - Protocols

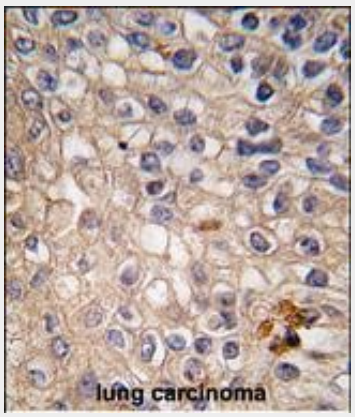
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

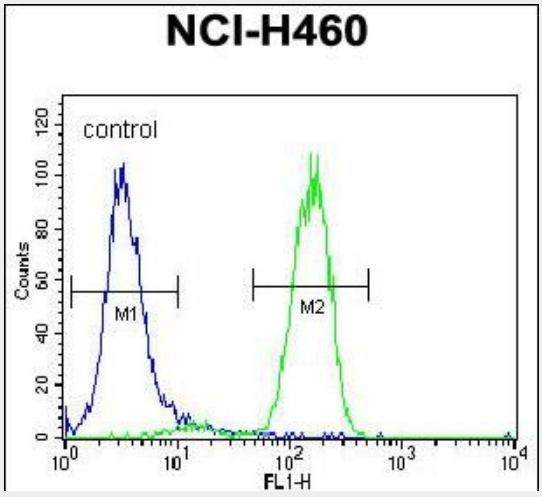
CAV1 Antibody (N-term) - Images



Western blot analysis of anti-CAV1 Antibody (N-term) (Cat.#AP7767b) in A2058 cell line lysates (35ug/lane). CAV1(N-term)(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with CAV1 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.



CAV1 Antibody (N-term) (Cat. #AP7767b) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CAV1 Antibody (N-term) - 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 (N-term) - 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)

CAV1 Antibody (N-term) - Citations

- ATP13A3 and caveolin-1 as potential biomarkers for difluoromethylornithine-based therapies in pancreatic cancers.