

caveolin-2 (H-96): sc-7942

BACKGROUND

Caveolae (also known as plasmalemmal vesicles) are 50-100 nM flask-shaped membranes that represent a subcompartment of the plasma membrane. On the basis of morphological studies, caveolae have been implicated to function in the transcytosis of various macromolecules (including LDL) across capillary endothelial cells, uptake of small molecules via potocytosis and the compartmentalization of certain signaling molecules including G protein-coupled receptors. Three proteins, caveolin-1, caveolin-2 and caveolin-3, have been identified as principal components of caveolae. Two forms of caveolin-1, designated α and β , share a distinct but overlapping cellular distribution and differ by an amino terminal 31 amino acid sequence which is absent from the β isoform. Caveolin-1 shares 31% identity with caveolin-2 and 65% identity with caveolin-3 at the amino acid level. Functionally, the three proteins differ in their interactions with heterotrimeric G protein isoforms.

CHROMOSOMAL LOCATION

Genetic locus: CAV2 (human) mapping to 7q31.2; Cav2 (mouse) mapping to 6 A2.

SOURCE

caveolin-2 (H-96) is a rabbit polyclonal antibody raised against amino acids 54-149 of caveolin-2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

caveolin-2 (H-96) is recommended for detection of caveolin-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

caveolin-2 (H-96) is also recommended for detection of caveolin-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for caveolin-2 siRNA (h): sc-40388, caveolin-2 siRNA (m): sc-40389, caveolin-2 shRNA Plasmid (h): sc-40388-SH, caveolin-2 shRNA Plasmid (m): sc-40389-SH, caveolin-2 shRNA (h) Lentiviral Particles: sc-40388-V and caveolin-2 shRNA (m) Lentiviral Particles: sc-40389-V.

Molecular Weight of caveolin-2: 25 kDa.

Positive Controls: L8 cell lysate: sc-3807, PC-12 + NGF cell lysate: sc-3808 or KNRK whole cell lysate: sc-2214.

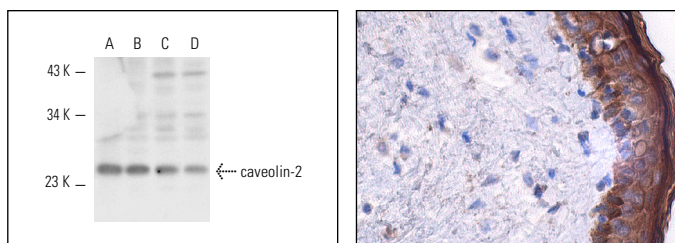
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



caveolin-2 (H-96): sc-7942. Western blot analysis of caveolin-2 expression in L8 (A), NGF-induced PC-12 (B), untreated KNRK (C) and PMA-induced KNRK (D) whole cell lysates.

caveolin-2 (H-96): sc-7942. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of epidermal cells.

SELECT PRODUCT CITATIONS

- Harris, J., et al. 2002. Expression of caveolin by bovine lymphocytes and antigen-presenting cells. *Immunology* 105: 190-195.
- Aldred, M.A., et al. 2003. Caveolin-1 and caveolin-2, together with three bone morphogenetic protein-related genes, may encode novel tumor suppressors down-regulated in sporadic follicular thyroid carcinogenesis. *Cancer Res.* 63: 2864-2871.
- Sando, G.N., et al. 2003. Caveolin expression and localization in human keratinocytes suggest a role in lamellar granule biogenesis. *J. Invest. Dermatol.* 120: 531-540.
- Elliott, M.H., et al. 2003. Cholesterol-dependent association of caveolin-1 with the transducin α subunit in bovine photoreceptor rod outer segments: disruption by cyclodextrin and guanosine 5'-O-(3-thiotriphosphate). *Biochemistry* 42: 7892-7903.
- Shin, T., et al. 2005. Expression of caveolin-1, -2, and -3 in the spinal cords of Lewis rats with experimental autoimmune encephalomyelitis. *J. Neuroimmunol.* 165: 11-20.
- Fujigaki, Y., et al. 2007. Immunohistochemical study on caveolin-1 α in regenerating process of tubular cells in gentamicin-induced acute tubular injury in rats. *Virchows Arch.* 450: 671-681.
- Błajacka, K., et al. 2012. Phosphoinositide 3-kinase C2 β regulates RhoA and the actin cytoskeleton through an interaction with Dbl. *PLoS ONE* 7: e44945.

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Try **caveolin-2 (5E9E2): sc-517234**, our highly recommended monoclonal alternative to caveolin-2 (H-96).