SANTA CRUZ BIOTECHNOLOGY, INC.

caveolin-1 (H-97): sc-7875

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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: CAV1 (human) mapping to 7q31.2; Cav1 (mouse) mapping to 6 A2.

SOURCE

caveolin-1 (H-97) is a rabbit polyclonal antibody raised against amino acids 82-178 of caveolin-1 of human origin.

PRODUCT

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

APPLICATIONS

caveolin-1 (H-97) is recommended for detection of α- and β-caveolin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (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-1 (H-97) is also recommended for detection of α- and β-caveolin-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for caveolin-1 siRNA (h): sc-29241, caveolin-1 siRNA (m): sc-29942, caveolin-1 siRNA (r): sc-106996, caveolin-1 shRNA Plasmid (h): sc-29241-SH, caveolin-1 shRNA Plasmid (m): sc-29942-SH, caveolin-1 shRNA Plasmid (r): sc-106996-SH, caveolin-1 shRNA (h) Lentiviral Particles: sc-29241-V, caveolin-1 shRNA (m) Lentiviral Particles: sc-29942-V and caveolin-1 shRNA (r) Lentiviral Particles: sc-106996-V.

Molecular Weight of caveolin-1: 22 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, A-431 whole cell lysate: sc-2201 or NIH/3T3 whole cell lysate: sc-2210.

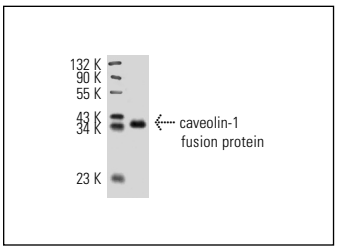
STORAGE

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-1 (H-97): sc-7875. Western blot analysis of human recombinant caveolin-1 fusion protein.

SELECT PRODUCT CITATIONS

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6. Shin, D.M., et al. 2008. *Mycobacterium tuberculosis* lipoprotein-induced association of TLR2 with protein kinase C ζ in lipid rafts contributes to reactive oxygen species-dependent inflammatory signalling in macrophages. Cell. Microbiol. 10: 1893-1905.
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