SANTA CRUZ BIOTECHNOLOGY, INC.

caveolin-3 (m): 293T Lysate: sc-119043

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, the 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.

REFERENCES

1. Fan, J.Y., et al. 1983. Morphological changes of the 3T3-L1 fibroblast plasma membrane upon differentiation to the adipocyte form. J. Cell Sci. 61: 219-230.
2. Rothberg, K.G., et al. 1992. Caveolin, a protein component of caveolae membrane coats. Cell 68: 673-682.
3. Lisanti, M.P., et al. 1994. Characterization of caveolin-rich membrane domains isolated from an endothelial-rich source: implications for human disease. J. Cell Biol. 126: 111-126.
4. Zurzolo, C., et al. 1994. VIP21/caveolin, glycosphingolipid clusters and the sorting of glyco-sylphosphatidylinositol-anchored proteins in epithelial cells. EMBO J. 13: 42-53.

CHROMOSOMAL LOCATION

Genetic locus: Cav3 (mouse) mapping to 6 E3.

PRODUCT

caveolin-3 (m): 293T Lysate represents a lysate of mouse caveolin-3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

caveolin-3 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive caveolin-3 antibodies. Recommended use: 10-20 µl per lane.

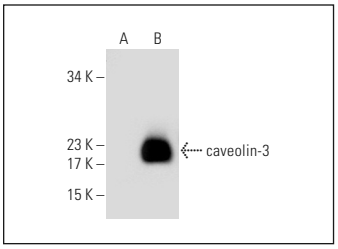
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

caveolin-3 (A-3): sc-5310 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse caveolin-3 expression in caveolin-3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

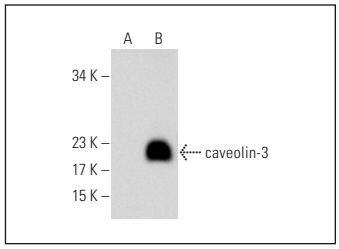
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



caveolin-3 (A-3): sc-5310. Western blot analysis of caveolin-3 expression in non-transfected: sc-117752 (**A**) and mouse caveolin-3 transfected: sc-119043 (**B**) 293T whole cell lysates.



caveolin-3 (C-2): sc-55518. Western blot analysis of caveolin-3 expression in non-transfected: sc-117752 (**A**) and mouse caveolin-3 transfected: sc-119043 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.