



caveolin-1 (h3): 293T Lysate: sc-159170

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

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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.
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5. Tang, Z., et al. 1996. Molecular cloning of caveolin-3, a novel member of the caveolin gene family expressed predominantly in muscle. *J. Biol. Chem.* 271: 2255-2261.
6. Li, S., et al. 1996. Phosphorylation of caveolin by Src tyrosine kinases. The α -isoform of caveolin is selectively phosphorylated by v-Src *in vivo*. *J. Biol. Chem.* 271: 3863-3868.
7. Song, K.S., et al. 1996. Expression of caveolin-3 in skeletal, cardiac, and smooth muscle cells. Caveolin-3 is a component of the sarcolemma and co-fractionates with dystrophin and dystrophin-associated glycoproteins. *J. Biol. Chem.* 271: 15160-15165.
8. Scherer, P.E., et al. 1996. Identification, sequence, and expression of caveolin-2 defines a caveolin gene family. *Proc. Natl. Acad. Sci. USA* 93: 131-135.

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.

CHROMOSOMAL LOCATION

Genetic locus: CAV1 (human) mapping to 7q31.2.

PRODUCT

caveolin-1 (h3): 293T Lysate represents a lysate of human caveolin-1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

caveolin-1 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive caveolin-1 antibodies. Recommended use: 10-20 μ l per lane.

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

RESEARCH USE

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