**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. 2 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: CA V1 (human) mapping to 7q31.2; Cav1 (mouse) mapping to 6 A2.

**SOURCE**

caveolin-1 (7C8) is a mouse monoclonal antibody raised against purified Glut4 vesicles from adipocytes of rat origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

caveolin-1 (7C8) is available conjugated to agarose (sc-53564 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53564 HRP), 200 µg/ml, for WB, (HCP) and ELISA; to either phycoerythrin (sc-53564 PE), fluorescein (sc-53564 FITC), Alexa Fluor® 488 (sc-53564 AF488), Alexa Fluor® 594 (sc-53564 AF594) or Alexa Fluor® 647 (sc-53564 AF647), 200 µg/ml, for IF, (HCP) and FCM; and to either Alexa Fluor® 680 (sc-53564 AF680) or Alexa Fluor® 790 (sc-53564 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

caveolin-1 (7C8) is recommended for detection of caveolin 1 of mouse, rat, human and, to a lesser extent, hamster 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 flow cytometry (1 µg per 1x10^6 cells).

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: CHO-K1 cell lysate; sc-3809.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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