SANTA CRUZ BIOTECHNOLOGY, INC.

Flotillin-1 (H-104): sc-25506

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Lipid rafts are sphingolipid- and cholesterol-rich membrane microdomains that are insoluble in nonionic detergents. Lipid rafts are important for numerous cellular processes, including signal transduction, membrane trafficking and molecular sorting. Flotillins are lipid raft components in neurons and caveloae-associated proteins in A498 kidney cells. Flotillin-1 belongs to the band 7.2/stomatin protein family, whose members are characterized by the presence of a hydrophobic N-terminal region that is predicted to form a single, outside to inside, transmembrane domain. Flotillin-1 and -2 have complementary tissue distributions and their expression levels are independently regulated. At the cellular level, Flotillin-2 is ubiquitously expressed, whereas Flotillin-1 is expressed in A498 kidney cells, muscle cell lines and fibroblasts. Flotillins form a ternary complex with Cap and Cbl, directing the localization of the Cap-Cbl complex to a lipid raft subdomain of the plasma membrane. Association of ER-X with Flotillin localizes ER-X within plasma membrane caveloae and mediates rapid oestrogen activation of the MAP kinase cascade. The expression of the flotillins is also correlated to the progression of Alzhemier pathology.

CHROMOSOMAL LOCATION

Genetic locus: FLOT1 (human) mapping to 6p21.33; Flot1 (mouse) mapping to 17 B1.

SOURCE

Flotillin-1 (H-104) is a rabbit polyclonal antibody raised against amino acids 324-427 of Flotillin-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.

Available as agarose conjugate for immunoprecipitation, sc-25506 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

Flotillin-1 (H-104) is recommended for detection of Flotillin-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).

Flotillin-1 (H-104) is also recommended for detection of Flotillin-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Flotillin-1 siRNA (h): sc-35391, Flotillin-1 siRNA (m): sc-35392, Flotillin-1 shRNA Plasmid (h): sc-35391-SH, Flotillin-1 shRNA Plasmid (m): sc-35392-SH, Flotillin-1 shRNA (h) Lentiviral Particles: sc-35391-V and Flotillin-1 shRNA (m) Lentiviral Particles: sc-35392-V.

Molecular Weight of Flotillin-1: 47 kDa.

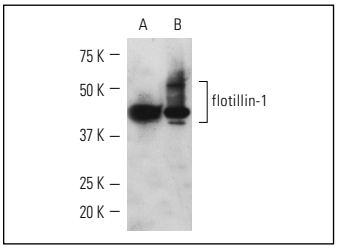
STORAGE

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

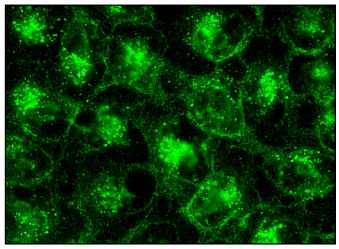
RESEARCH USE

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

DATA



Flotillin-1 (H-104): sc-25506. Western blot analysis of Flotillin-1 expression in 3T3-L1 (**A**) and A-431 (**B**) whole cell lysates.



Flotillin-1 (H-104): sc-25506. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

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4. Fortin, C.F., et al. 2010. MT6-MMP is present in lipid rafts and faces inward in living human PMNs but translocates to the cell surface during neutrophil apoptosis. Int. Immunol. 22: 637-649.
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6. Räägel, H., et al. 2011. Mapping of protein transduction pathways with fluorescent microscopy. Methods Mol. Biol. 683: 165-179.
7. Hamamura, K., et al. 2011. Functional activation of Src family kinase yes protein is essential for the enhanced malignant properties of human melanoma cells expressing ganglioside GD3. J. Biol. Chem. 286: 18526-18537.
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