SANTA CRUZ BIOTECHNOLOGY, INC.

SNX9 (G-5): sc-166863

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Sorting nexin proteins (SNX) are members of a large family of hydrophilic PX (phospholipid-binding motif) domain-containing proteins that interact with a variety of receptor types. SNXs are widely expressed, although the tissue distribution of each SNX mRNA varies. The ability of SNXs to bind specific phospholipids, as well as their tendency to form protein-protein complexes, suggests a role for these proteins in cellular membrane trafficking and protein sorting. SNXs may also function specifically in pro-degradative sorting, internalization, endosomal recycling or simply in endosomal sorting. SNXs partially associate with cellular membranes, despite their hydrophilic nature. SNX9 resides in the cytosol where it influences the processing and trafficking of Insulin receptors. The enzyme aldolase binds to and inactivates SNX9. Phosphorylation of SNX9 releases aldolase and frees SNX9 to recruit and activate Dynamin II, a neuronal phosphoprotein and a GTPase enzyme which mediates late stages of endocytosis in both neural and non-neural cells.

REFERENCES

1. McClure, S.J., et al. 1997. Dynamin, endocytosis and intracellular signalling (review). Mol. Membr. Biol. 13: 189-215.
2. Worby, C.A., et al. 2002. Sorting out the cellular functions of sorting nexins. Nat. Rev. Mol. Membr. Biol. 3: 919-931.
3. MaCaulay, S.L., et al. 2003. Insulin stimulates movement of sorting nexin 9 between cellular compartments: a putative role mediating cell surface receptor expression and Insulin action. Biochem. J. 376: 123-134.
4. Lundmark, R., et al. 2004. Regulated membrane recruitment of Dynamin II mediated by sorting nexin 9. J. Biol. Chem. 279: 42694-42702.

CHROMOSOMAL LOCATION

Genetic locus: SNX9 (human) mapping to 6q25.3; Snx9 (mouse) mapping to 17 A1.

SOURCE

SNX9 (G-5) is a mouse monoclonal antibody raised against amino acids 391-436 mapping within an internal region of SNX9 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CIN85 (A-7) is available conjugated to agarose (sc-166862 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166862 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166862 PE), fluorescein (sc-166862 FITC), Alexa Fluor® 488 (sc-166862 AF488), Alexa Fluor® 546 (sc-166862 AF546), Alexa Fluor® 594 (sc-166862 AF594) or Alexa Fluor® 647 (sc-166862 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166862 AF680) or Alexa Fluor® 790 (sc-166862 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

SNX9 (G-5) is recommended for detection of SNX9 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

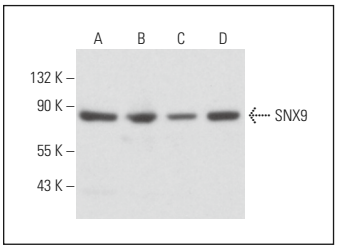
Suitable for use as control antibody for SNX9 siRNA (h): sc-61597, SNX9 siRNA (m): sc-61598, SNX9 shRNA Plasmid (h): sc-61597-SH, SNX9 shRNA Plasmid (m): sc-61598-SH, SNX9 shRNA (h) Lentiviral Particles: sc-61597-V and SNX9 shRNA (m) Lentiviral Particles: sc-61598-V.

Molecular Weight (predicted) of SNX9: 67 kDa.

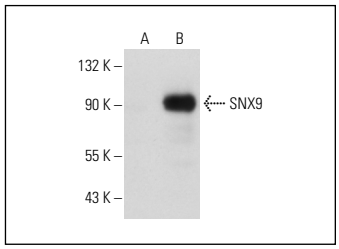
Molecular Weight (observed) of SNX9: 96 kDa.

Positive Controls: SNX9 (h2): 293T Lysate: sc-174107, HeLa whole cell lysate: sc-2200 or 3T3-L1 cell lysate: sc-2243.

DATA



SNX9 (G-5): sc-166863. Western blot analysis of SNX9 expression in HeLa (**A**), NIH/3T3 (**B**), RAW 264.7 (**C**) and 3T3-L1 (**D**) whole cell lysates.



SNX9 (G-9): sc-166863. Western blot analysis of SNX9 expression in non-transfected: sc-117752 (**A**) and human SNX9 transfected: sc-174107 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Nunez, D., et al. 2011. Hotspots organize clathrin-mediated endocytosis by efficient recruitment and retention of nucleating resources. Traffic 12: 1868-1878.
2. Baines, K., et al. 2022. The ATG5 interactome links clathrin-mediated vesicular trafficking with the autophagosome assembly machinery. Autophagy Rep. 1: 88-118.

RESEARCH USE

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

PROTOCOLS

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