

SNX9 (N-20): sc-49143

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

- McClure, S.J. and Robinson, P.J. 1997. Dynamin, endocytosis and intracellular signalling (review). *Mol. Membr. Biol.* 13: 189-215.
- Worby, C.A. and Dixon, J.E. 2002. Sorting out the cellular functions of sorting nexins. *Nat. Rev. Mol. Cell Biol.* 3: 919-931.
- 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.
- Lundmark, R. and Carlsson, S.R. 2004. Regulated membrane recruitment of Dynamin II mediated by sorting nexin 9. *J. Biol. Chem.* 279: 42694-42702.
- Carlton, J., et al. 2005. Sorting nexins—unifying trends and new perspectives. *Traffic* 6: 75-82.
- Jacques, C., et al. 2005. Two-step differential expression analysis reveals a new set of genes involved in thyroid oncogenic tumors. *J. Clin. Endocrinol. Metab.* 90: 2314-2320.

CHROMOSOMAL LOCATION

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

SOURCE

SNX9 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SNX9 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.

Blocking peptide available for competition studies, sc-49143 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SNX9 (N-20) is recommended for detection of SNX9 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).

SNX9 (N-20) is also recommended for detection of SNX9 in additional species, including equine, canine, bovine, porcine and avian.

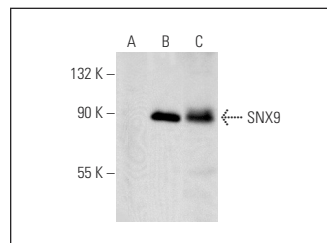
Suitable for use as control antibody for SNX9 siRNA (h): sc-61597, SNX9 siRNA (m): sc-61598, SNX9 shRNA Plasmid (h): sc-61597-SH, SNX9 shRNA Plasmid (m): sc-61598-SH, SNX9 shRNA (h) Lentiviral Particles: sc-61597-V and SNX9 shRNA (m) Lentiviral Particles: sc-61598-V.

Molecular Weight (predicted) of SNX9: 67 kDa.

Molecular Weight (observed) of SNX9: 96 kDa.

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

DATA



SNX9 (N-20): sc-49143. Western blot analysis of SNX9 expression in non-transfected 293T: sc-117752 (A), human SNX9 transfected 293T: sc-174107 (B) and 3T3-L1 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Marín, M.P., et al. 2010. Endocytosis in cultured neurons is altered by chronic alcohol exposure. *Toxicol. Sci.* 115: 202-213.

RESEARCH USE

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

PROTOCOLS

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


 MONOS
Satisfaction
Guaranteed

Try **SNX9 (G-5): sc-166863**, our highly recommended monoclonal alternative to SNX9 (N-20).