SANTA CRUZ BIOTECHNOLOGY, INC.

SNX4 (E-18): sc-10622

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Sorting nexin 1 (SNX1) is a member of a large family of hydrophilic proteins that interact with a variety of receptor types and are involved in intracellular trafficking. SNX1 and the related splice variant, SNX1A, bind the epidermal growth factor (EGF) receptor, facilitate its transport to lysosome, and thereby contribute to the degradation of the receptor. SNX2 and SNX4 share a high degree of amino acid similarity with SNX1, as they all contain a characteristic phox homology (PX) domain. These proteins are all partially associated with cellular membranes and they, likewise, associate with EGF, PDGF and Insulin receptor tyrosine kinases. These nexins are widely expressed and yet have various tissue distribution patterns. Additionally, the sorting nexins can associate with each other and with a variety of other cellular proteins, suggesting that they exist as part of multisubunit complexes. The related protein, SNX3, comprises a distinct subgroup of nexins that share less sequence similarity outside of the PX domain and have dramatically different binding affinities for the tyrosine kinase receptors.

REFERENCES

1. Trowbridge, I.S., et al. 1993. Signal-dependent membrane protein trafficking in the endocytic pathway. Annu. Rev. Cell Biol. 9: 129-161.
2. Opresko, L.K., et al. 1995. Endocytosis and lysosomal targeting of epidermal growth factor receptors are mediated by distinct sequences independent of the tyrosine kinase domain. J. Biol. Chem. 270: 4325-4333.
3. Ponting, C.P. 1996. Novel domains in NADPH oxidase subunits, sorting nexins, and PtdIns 3-kinases: binding partners of SH3 domains? Protein Sci. 5: 2353-2357.
4. Kurten, R.C., et al. 1996. Enhanced degradation of EGF receptors by a sorting nexin, SNX1. Science 272: 1008-1010.
5. Horazdovsky, B.F., et al. 1997. A sorting nexin-1 homologue, Vps5p, forms a complex with Vps17p and is required for recycling the vacuolar protein-sorting receptor. Mol. Biol. Cell 8: 1529-1541.
6. Haft, C.R., et al. 1998. Identification of a family of sorting nexin molecules and characterization of their association with receptors. Mol. Cell. Biol. 18: 7278-7287.

CHROMOSOMAL LOCATION

Genetic locus: SNX4 (human) mapping to 3q21.2; Snx4 (mouse) mapping to 16 B3.

SOURCE

SNX4 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SNX4 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-10622 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SNX4 (E-18) is recommended for detection of SNX4 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

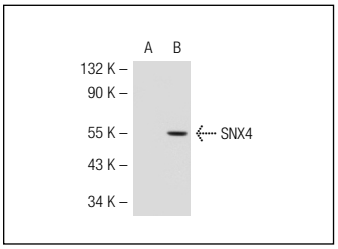
SNX4 (E-18) is also recommended for detection of SNX4 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for SNX4 siRNA (h): sc-41353, SNX4 siRNA (m): sc-41354, SNX4 shRNA Plasmid (h): sc-41353-SH, SNX4 shRNA Plasmid (m): sc-41354-SH, SNX4 shRNA (h) Lentiviral Particles: sc-41353-V and SNX4 shRNA (m) Lentiviral Particles: sc-41354-V.

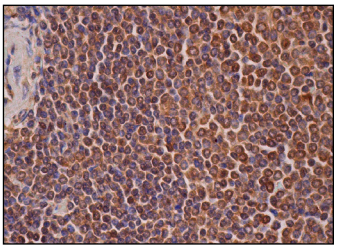
Molecular Weight of SNX4: 60 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, SNX4 (m2): 293T Lysate: sc-123700 or NIH/3T3 whole cell lysate: sc-2210.

DATA



SNX4 (E-18): sc-10622. Western blot analysis of SNX4 expression in non-transfected: sc-117752 (**A**) and mouse SNX4 transfected: sc-123700 (**B**) 293T whole cell lysates.



SNX4 (E-18): sc-10622. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic and nuclear staining of cells in white pulp and cells in red pulp.

SELECT PRODUCT CITATIONS

1. Skαnland, S.S., et al. 2009. SNX4 in complex with clathrin and dynein: implications for endosome movement. PLoS ONE 4: e5935.

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.

MONOS Satisfaction Guaranteed

Try **SNX4 (B-4): sc-271147** or **SNX4 (E-2): sc-393853**, our highly recommended monoclonal alternatives to SNX4 (E-18).