

SNX4 (Y-36): sc-101306

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., Collawn, J.F. and Hopkins, C.R. 1993. Signal-dependent membrane protein trafficking in the endocytic pathway. *Annu. Rev. Cell Biol.* 9: 129-161.
2. Opresko, L.K., Chang, C.P., Will, B.H., Burke, P.M., Gill, G.N. and Wiley, H.S. 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. Kurten, R.C., Cadena, D.L. and Gill, G.N. 1996. Enhanced degradation of EGF receptors by a sorting nexin, SNX1. *Science* 272: 1008-1010.
4. 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.
5. Horazdovsky, B.F., Davies, B.A., Seaman, M.N., McLaughlin, S.A. and Yoon, S. 1997. Emr SD.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., de la Luz Sierra, M., Barr, V.A., Haft, D.H. and Taylor, S.I. 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 (Y-36) is a mouse monoclonal antibody raised against recombinant SNX4 of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2a} kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SNX4 (Y-36) 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

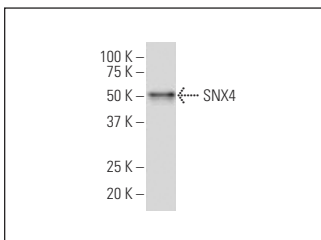
Molecular Weight of SNX4: 60 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



SNX4 (Y-36): sc-101306. Western blot analysis of SNX4 expression in A-431 whole cell lysate.

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.

PROTOCOLS

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