SNX5 (C-15): sc-10626



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

- 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. Ponting, C.P. 1996. Novel domains in NADPH oxidase subunits, sorting nexins, and Ptdlns 3-kinases: binding partners of SH3 domains? Protein Sci. 5: 2353-2357.
- 4. 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.
- 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.
- 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: SNX5 (human) mapping to 20p11.23; Snx5 (mouse) mapping to 2 G1.

SOURCE

SNX5 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SNX5 of human origin.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10626 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SNX5 (C-15) is recommended for detection of SNX5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

SNX5 (C-15) is also recommended for detection of SNX5 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SNX5 siRNA (h): sc-41355, SNX5 siRNA (m): sc-41356, SNX5 shRNA Plasmid (h): sc-41355-SH, SNX5 shRNA Plasmid (m): sc-41356-SH, SNX5 shRNA (h) Lentiviral Particles: sc-41355-V and SNX5 shRNA (m) Lentiviral Particles: sc-41356-V.

Molecular Weight of SNX5: 51 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.



Try **SNX5 (F-11):** sc-515215, our highly recommended monoclonal alternative to SNX5 (C-15).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**