SANTA CRUZ BIOTECHNOLOGY, INC.

SNX17 (m): 293T Lysate: sc-123694

BACKGROUND

Sorting nexin (SNX) proteins are members of a large family of hydrophilic proteins that interact with a variety of receptor types, are involved in intracellular trafficking and contain a characteristic phox homology (PX) domain. SNX17, which demonstrates ubiquitous expression, contains a PX domain that shares 28% sequence identity with the PX domain of SNX1, as well as a B41 (FERM) domain. The SNX17 gene maps to chromosome 2 and is part of the cellular sorting machinery that regulates cell surface levels of LRP (lipoprotein receptor-related protein) by promoting its recycling. While the PX domain of SNX17 interacts with phosphatidylinositol-3-phosphate for membrane association, the FERM domain and the carboxyl-terminal region aid in LRP binding. Research indicates that SNX17 is localized to the limiting membrane and recycling tubules of early endosomes.

REFERENCES

1. Nomura, N., Nagase, T., Miyajima, N., Sazuka, T., Tanaka, A., Sato, S., Seki, N., Kawarabayasi, Y., Ishikawa, K. and Tabata, S. 1994. Prediction of the coding sequences of unidentified human genes. II. The coding sequences of 40 new genes (KIAA0041-KIAA0080) deduced by analysis of cDNA clones from human cell line KG-1. DNA Res. 1: 223-229.
2. Florian, V., Schlüter, T. and Bohnensack, R. 2001. A new member of the sorting nexin family interacts with the C-terminus of P-Selectin. Biochem. Biophys. Res. Commun. 281: 1045-1050.
3. Stockinger, W., Sailler, B., Strasser, V., Recheis, B., Fasching, D., Kahr, L., Schneider, W.J. and Nimpf, J. 2002. The PX domain protein SNX17 interacts with members of the LDL receptor family and modulates endocytosis of the LDL receptor. EMBO J. 21: 4259-4267.
4. Burden, J.J., Sun, X.M., García, A.B. and Soutar, A.K. 2004. Sorting motifs in the intracellular domain of the low density lipoprotein receptor interact with a novel domain of sorting nexin 17. J. Biol. Chem. 279: 16237-16245.
5. Williams, R., Schlüter, T., Roberts, M.S., Knauth, P., Bohnensack, R. and Cutler, D.F. 2004. Sorting nexin 17 accelerates internalization yet retards degradation of P-Selectin. Mol. Biol. Cell 15: 3095-3105.
6. Knauth, P., Schlüter, T., Czubayko, M., Kirsch, C., Florian, V., Schreckenberger, S., Hahn, H. and Bohnensack, R. 2005. Functions of sorting nexin 17 domains and recognition motif for P-Selectin trafficking. J. Mol. Biol. 347: 813-825.
7. van Kerkhof, P., Lee, J., McCormick, L., Tetrault, E., Lu, W., Schoenfish, M., Oorschot, V., Strous, G.J., Klumperman, J. and Bu, G. 2005. Sorting nexin 17 facilitates LRP recycling in the early endosome. EMBO J. 24: 2851-2861.

CHROMOSOMAL LOCATION

Genetic locus: Snx17 (mouse) mapping to 5 B1.

PRODUCT

SNX17 (m): 293T Lysate represents a lysate of mouse SNX17 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

SNX17 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SNX17 antibodies. Recommended use: 10-20 µl per lane.

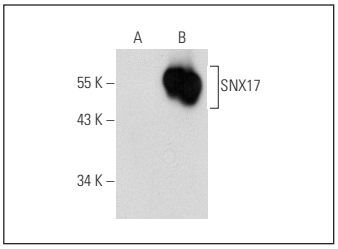
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SNX17 (E-12): sc-166597 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse SNX17 expression in SNX17 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

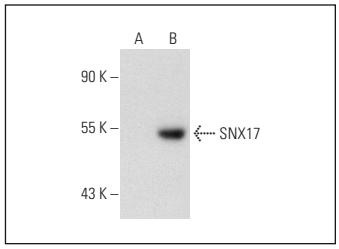
RECOMMENDED SUPPORT REAGENTS

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.

DATA



SNX17 (E-12): sc-166597. Western blot analysis of SNX17 expression in non-transfected: sc-117752 (**A**) and mouse SNX17 transfected: sc-123694 (**B**) 293T whole cell lysates.



SNX17 (D-10): sc-166585. Western blot analysis of SNX17 expression in non-transfected: sc-117752 (**A**) and mouse SNX17 transfected: sc-123694 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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