SNX17 (E-12): sc-166597

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

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 intra-cellular 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., et al. 1994. Prediction of the coding sequences of unidenti-fied 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., et al. 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., et al. 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., et al. 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., et al. 2004. Sorting nexin 17 accelerates internalization yet retards degradation of P-Selectin. Mol. Biol. Cell 15: 3095-3105.

6. Knauth, P., et al. 2005. Functions of sorting nexin 17 domains and recogni-tion motif for P-Selectin trafficking. J. Mol. Biol. 347: 813-825.

7. van Kerkhof, P., et al. 2005. Sorting nexin 17 facilitates LRP recycling in the early endosome. EMBO J. 24: 2851-2861.

CHROMOSOMAL LOCATION

Genetic locus: SNX17 (human) mapping to 2p23.3; Snx17 (mouse) mapping to 5 B1.

SOURCE

SNX17 (E-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 405-430 near the C-terminus of SNX17 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166597 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

SNX17 (E-12) is recommended for detection of SNX17 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 sec-tions) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SNX17 siRNA (h): sc-61587, SNX17 siRNA (m): sc-61588, SNX17 shRNA Plasmid (h): sc-61587-SH, SNX17 shRNA Plasmid (m): sc-61588-SH, SNX17 shRNA (h) Lentiviral Particles: sc-61587-V and SNX17 shRNA (m) Lentiviral Particles: sc-61588-V.

Molecular Weight of SNX17: 53 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, rat brain extract: sc-2392 or Neuro-2A whole cell lysate: sc-364185.

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) Immunopre-cipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immu-nofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA
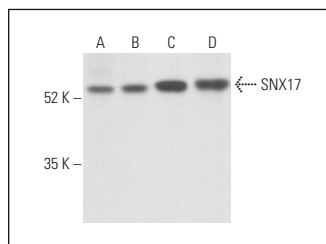
SNX17 (E-12): sc-166597. Western blot analysis of SNX17 expression in RAW 264.7 (**A**), Neuro-2A (**B**) and IB4 (**C**) whole cell lysates and rat brain tissue extract (**D**).
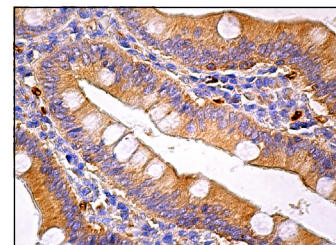
SNX17 (E-12): sc-166597. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

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.