

SNX17 (E-12): sc-166597



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 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

- Nomura, N., et al. 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.
- Florjan, 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.
- 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.
- 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.
- Williams, R., et al. 2004. Sorting nexin 17 accelerates internalization yet retards degradation of P-Selectin. *Mol. Biol. Cell* 15: 3095-3105.
- Knauth, P., et al. 2005. Functions of sorting nexin 17 domains and recognition motif for P-Selectin trafficking. *J. Mol. Biol.* 347: 813-825.
- 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 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).

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.

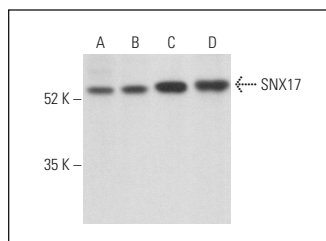
Molecular Weight of SNX17: 53 kDa.

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

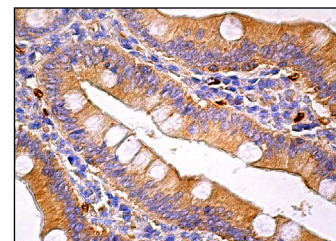
RECOMMENDED SUPPORT REAGENTS

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) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: 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.