

SNX1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP14044b

Product Information

Application	WB, E
Primary Accession	<u>Q13596</u>
Other Accession	Q4R503, NP_683758.1, NP_690039.1, NP_003090.2
Reactivity	Human, Rat, Mouse
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34089
Calculated MW	59070
Antigen Region	426-455

Additional Information

Gene ID	6642
Other Names	Sorting nexin-1, SNX1
Target/Specificity	This SNX1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 426-455 amino acids from the C-terminal region of human SNX1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SNX1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SNX1
Function	Involved in several stages of intracellular trafficking. Interacts with membranes containing phosphatidylinositol 3-phosphate (PtdIns(3P)) or phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2) (PubMed: <u>12198132</u>).

	Acts in part as component of the retromer membrane- deforming SNX-BAR subcomplex. The SNX-BAR retromer mediates retrograde transport of cargo proteins from endosomes to the trans-Golgi network (TGN) and is involved in endosome-to-plasma membrane transport for cargo protein recycling. The SNX-BAR subcomplex functions to deform the donor membrane into a tubular profile called endosome-to-TGN transport carrier (ETC) (Probable). Can sense membrane curvature and has in vitro vesicle-to-membrane remodeling activity (PubMed: <u>19816406</u> , PubMed: <u>23085988</u>). Involved in retrograde endosome-to-TGN transport of lysosomal enzyme receptors (IGF2R, M6PR and SORT1) and Shiginella dysenteria toxin stxB. Plays a role in targeting ligand-activated EGFR to the lysosomes for degradation after endocytosis from the cell surface and release from the Golgi (PubMed: <u>12198132</u> , PubMed: <u>15498486</u> , PubMed: <u>17101778</u> , PubMed: <u>1750970</u> , PubMed: <u>18088323</u> , PubMed: <u>21040701</u>). Involvement in retromer-independent endocytic trafficking of P2RY1 and lysosomal degradation of protease-activated receptor-1/F2R (PubMed: <u>16407403</u> , PubMed: <u>20070609</u>). Promotes KALRN- and RHOG-dependent but retromer-independent membrane remodeling such as lamellipodium formation; the function is dependent on GEF activity of KALRN (PubMed: <u>20604901</u>). Required for endocytosis of DRD5 upon agonist stimulation but not for basal receptor trafficking (PubMed: <u>23152498</u>).
Cellular Location	Endosome membrane; Peripheral membrane protein; Cytoplasmic side. Golgi apparatus, trans-Golgi network membrane; Peripheral membrane protein; Cytoplasmic side. Early endosome membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, lamellipodium. Note=Enriched on tubular elements of the early endosome membrane. Binds preferentially to highly curved membranes enriched in phosphatidylinositol 3-phosphate (PtdIns(3P)) or phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2) (PubMed:15498486). Colocalized with SORT1 to tubular endosomal membrane structures called endosome-to-TGN transport carriers (ETCs) which are budding from early endosome vacuoles just before maturing into late endosome vacuoles (PubMed:18088323). Colocalizes with DNAJC13 and Shiginella dysenteria toxin stxB on early endosomes (PubMed:19874558) Colocalized with F-actin at the leading edge of lamellipodia in a KALRN-dependent manner (PubMed:20604901).

Background

This gene encodes a member of the sorting nexin family. Members of this family contain a phox (PX) domain, which is a phosphoinositide binding domain, and are involved in intracellular trafficking. This endosomal protein regulates the cell-surface expression of epidermal growth factor receptor. This protein also has a role in sorting protease-activated receptor-1 from early endosomes to lysosomes. This protein may form oligomeric complexes with family members. This gene results in three transcript variants encoding distinct isoforms.

References

Nisar, S., et al. Traffic 11(4):508-519(2010) Mari, M., et al. Traffic 9(3):380-393(2008) Bryant, D.M., et al. J. Cell. Sci. 120 (PT 10), 1818-1828 (2007) : Rojas, R., et al. Mol. Cell. Biol. 27(3):1112-1124(2007) Nguyen, L.N., et al. Clin. Cancer Res. 12(23):6952-6959(2006)

Images



Western blot analysis of lysates from Hela, 293T cell line (from left to right), using SNX1 Antibody (C-term)(Cat. #AP14044b). AP14044b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.