

# **SNX1** Antibody

Rabbit mAb Catalog # AP91972

### **Product Information**

**Application** WB, IHC, IF, FC, ICC, IHF

Primary Accession <u>Q13596</u>

**Reactivity** Rat, Human, Mouse

**Clonality** Monoclonal

Other Names Snx1; SNX1A; Sorting nexin 1; Sorting nexin 1A; Vps5;

IsotypeRabbit IgGHostRabbitCalculated MW59070

# **Additional Information**

**Dilution** WB 1:1000~1:5000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:50

**Purification** Affinity-chromatography

**Immunogen** A synthesized peptide derived from human SNX1

**Description** May be involved in several stages of intracellular trafficking. Plays a role in

targeting ligand-activated EGFR to the lysosomes for degradation after

endocytosis from the cell surface and release from the Golgi.

**Storage Condition and Buffer** Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

#### **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:12198132). 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:19816406, PubMed:23085988). 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

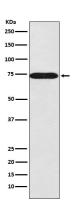
endocytosis from the cell surface and release from the Golgi (PubMed: 12198132, PubMed: 15498486, PubMed: 17101778,

PubMed:<u>17550970</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).

# **Images**



Western blot analysis of SNX1 expression in 293T cell lysate.

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