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Goat Anti-SNX1 Antibody

Peptide-affinity purified goat antibody

Catalog # AF2230a

Specification

Goat Anti-SNX1 Antibody - Product Information

Application	**WB, IHC, ICC, E**
Primary Accession	Q13596
Other Accession	NP_690039, 6642, 56440 (mouse), 84471 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**59070**

Goat Anti-SNX1 Antibody - Additional Information

Gene ID 6642

Other Names
Sorting nexin-1, SNX1

Dilution
WB~~1:1000
IHC~~1:100~500
ICC~~N/A
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-SNX1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-SNX1 Antibody - 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:17550970, PubMed:18088323, PubMed:21040701). Involvement in retromer-independent endocytic trafficking of P2RY1 and lysosomal degradation of protease-activated receptor-1/F2R (PubMed:16407403, PubMed:20070609). Promotes KALRN- and RHOG-dependent but retromer-independent membrane remodeling such as lamellipodium formation; the function is dependent on GEF activity of KALRN (PubMed:20604901). Required for endocytosis of DRD5 upon agonist stimulation but not for basal receptor trafficking (PubMed:23152498).

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).

Goat Anti-SNX1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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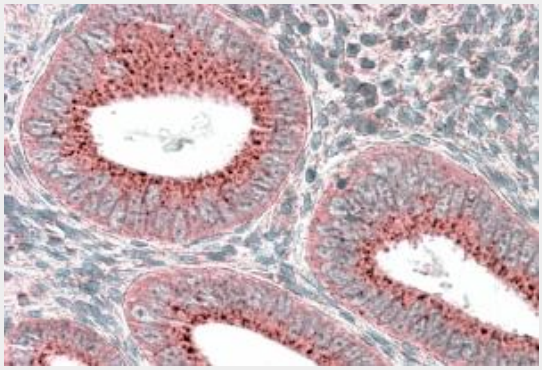
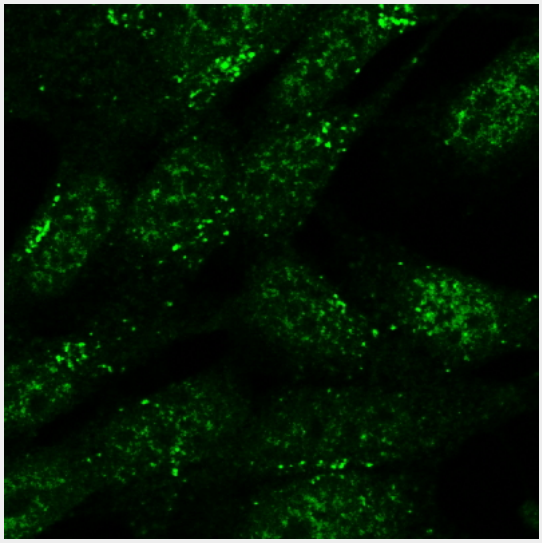
Goat Anti-SNX1 Antibody - Images

AF2230a (1 µg/ml) staining of HeLa lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF2230a (3.8 µg/ml) staining of paraffin embedded Human Uterus. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF2230a (5ug/ml) staining of formaldehyde-fixed SH5Y5Y and detected with Alexa 488 in

confocal microscopy. Data obtained from Dr. Schallburg Nielsen, Aarhus University Denmark.

Goat Anti-SNX1 Antibody - 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.

Goat Anti-SNX1 Antibody - References

Regulation of P2Y1 receptor traffic by sorting Nexin 1 is retromer independent. Nisar S, et al. Traffic, 2010 Apr. PMID 20070609.
SNX1 defines an early endosomal recycling exit for sortilin and mannose 6-phosphate receptors. Mari M, et al. Traffic, 2008 Mar. PMID 18088323.
EGF induces macropinocytosis and SNX1-modulated recycling of E-cadherin. Bryant DM, et al. J Cell Sci, 2007 May 15. PMID 17502486.
Sorting nexin 1 down-regulation promotes colon tumorigenesis. Nguyen LN, et al. Clin Cancer Res, 2006 Dec 1. PMID 17145813.
Interchangeable but essential functions of SNX1 and SNX2 in the association of retromer with endosomes and the trafficking of mannose 6-phosphate receptors. Rojas R, et al. Mol Cell Biol, 2007 Feb. PMID 17101778.