

KD-Validated Anti-Sorting Nexin 1 Rabbit Monoclonal Antibody Rabbit monoclonal antibody Catalog # AGI1733

Specification

KD-Validated Anti-Sorting Nexin 1 Rabbit Monoclonal Antibody - Product Information

Application	WB, FC, ICC
Primary Accession	<u>Q13596</u>
Reactivity	Rat, Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 59 kDa , observed , 74 kDa KDa
Gene Name	SNX1
Aliases	SNX1; Sorting Nexin 1; HsT17379; Vps5;
	Sorting Nexin-1; MGC8664; SNX1A; Sorting
	Nexin 1A
Immunogen	A synthesized peptide derived from human
	SNX1

KD-Validated Anti-Sorting Nexin 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID Other Names Sorting nexin-1, SNX1 6642

KD-Validated Anti-Sorting Nexin 1 Rabbit Monoclonal 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 membranedeforming 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).

KD-Validated Anti-Sorting Nexin 1 Rabbit Monoclonal Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

KD-Validated Anti-Sorting Nexin 1 Rabbit Monoclonal Antibody - Images





Western blotting analysis using anti-sorting nexin 1 antibody (Cat#62678). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-sorting nexin 1 antibody (Cat#62678, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQTM ECL Substrate Kit (Cat#226).



Western blotting analysis using anti-Sorting nexin 1 antibody (Cat#62678). Sorting nexin 1 expression in wild type (WT) and Sorting nexin 1 shRNA knockdown (KD) HeLa cells with 20 μ g of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with anti-Sorting nexin 1 antibody (Cat#62678, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using NaQTM ECL Substrate Kit (Cat#716).



Flow cytometric analysis of Sorting nexin 1 expression in HepG2 cells using anti-Sorting nexin 1 antibody (Cat#62678, 1:2,000). Green, isotype control; red, Sorting nexin 1.



Immunocytochemical staining of HepG2 cells with anti-Sorting nexin 1 antibody (Cat#62678, 1:1,000). Nuclei were stained blue with DAPI; Sorting nexin 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 μ m.