

**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	<a href="#">Q13596</a>
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	6642
<b>Other Names</b>	
Sorting nexin-1, SNX1	

**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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/19816406), PubMed: [23085988](http://www.uniprot.org/citations/23085988)). Involved in retrograde endosome-to-TGN transport of lysosomal enzyme receptors (IGF2R, M6PR and SORT1) and Shigella dysenteriae 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](http://www.uniprot.org/citations/12198132), PubMed: [15498486](http://www.uniprot.org/citations/15498486), PubMed: [17101778](http://www.uniprot.org/citations/17101778), PubMed: [17550970](http://www.uniprot.org/citations/17550970)),

PubMed: <a href="http://www.uniprot.org/citations/18088323" target="\_blank">18088323</a>, PubMed: <a href="http://www.uniprot.org/citations/21040701" target="\_blank">21040701</a>). Involvement in retromer-independent endocytic trafficking of P2RY1 and lysosomal degradation of protease-activated receptor-1/F2R (PubMed: <a href="http://www.uniprot.org/citations/16407403" target="\_blank">16407403</a>, PubMed: <a href="http://www.uniprot.org/citations/20070609" target="\_blank">20070609</a>). Promotes KALRN- and RHOG-dependent but retromer-independent membrane remodeling such as lamellipodium formation; the function is dependent on GEF activity of KALRN (PubMed: <a href="http://www.uniprot.org/citations/20604901" target="\_blank">20604901</a>). Required for endocytosis of DRD5 upon agonist stimulation but not for basal receptor trafficking (PubMed: <a href="http://www.uniprot.org/citations/23152498" target="\_blank">23152498</a>).

### Cellular Location

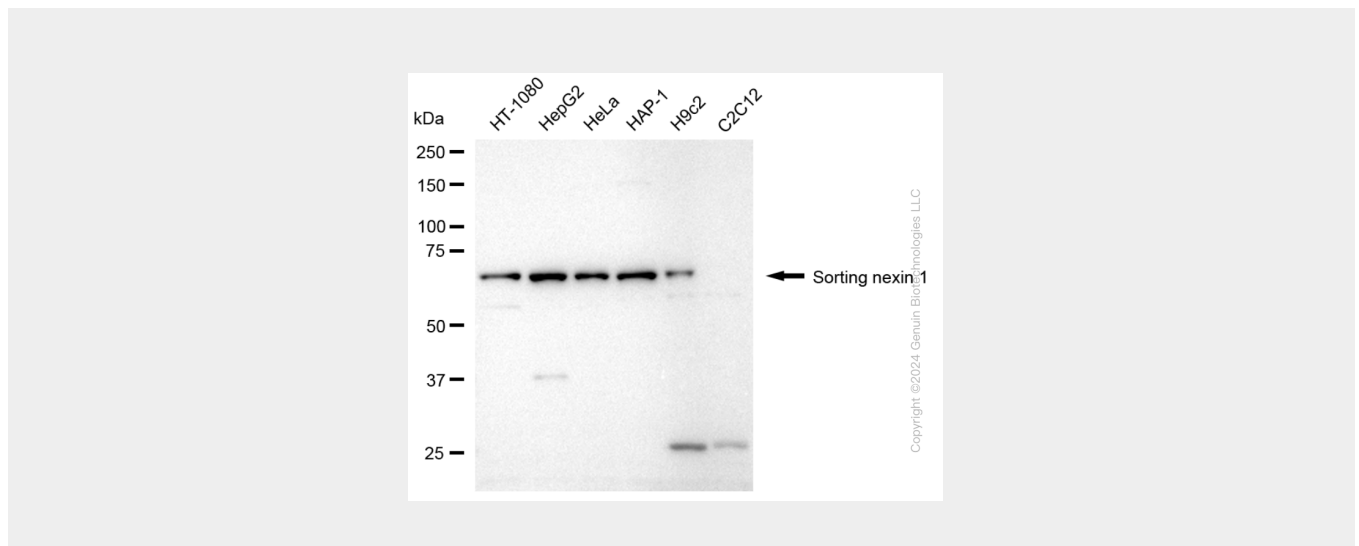
Endosome membrane; Peripheral membrane protein; Cytoplasmic side. Golgi apparatus, trans-Golgi network membrane; Peripheral membrane protein; Cytoplasmic side. Early endosome membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, lamellipodium. Note=Enriched on tubular elements of 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 Shigella dysenteriae 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

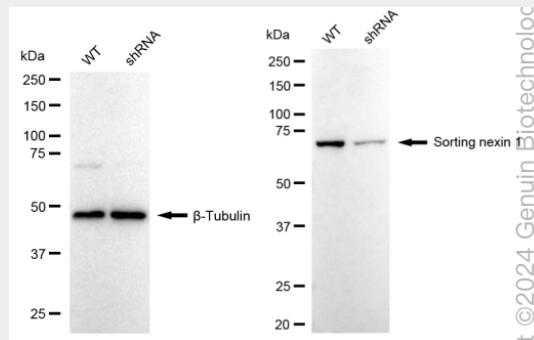
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

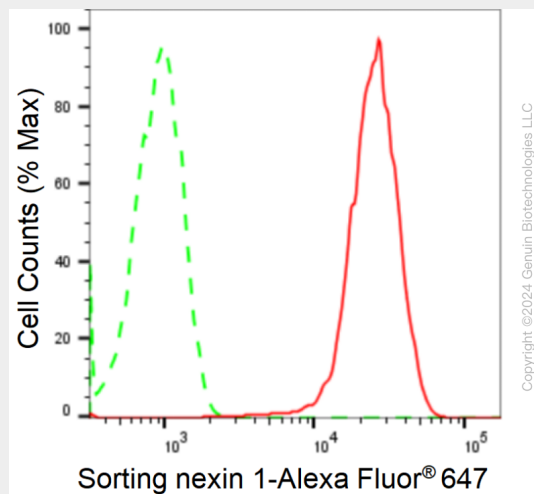
### KD-Validated Anti-Sorting Nexin 1 Rabbit Monoclonal Antibody - Images



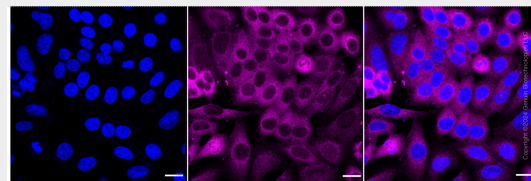
Western blotting analysis using anti-sorting nexin 1 antibody (Cat#AGI1733). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-sorting nexin 1 antibody (Cat#AGI1733, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Sorting nexin 1 antibody (Cat#AGI1733). Sorting nexin 1 expression in wild type (WT) and Sorting nexin 1 shRNA knockdown (KD) HeLa cells with 20  $\mu$ g of total cell lysates.  $\beta$ -Tubulin serves as a loading control. The blot was incubated with anti-Sorting nexin 1 antibody (Cat#AGI1733, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Sorting nexin 1 expression in HepG2 cells using anti-Sorting nexin 1 antibody (Cat#AGI1733, 1:2,000). Green, isotype control; red, Sorting nexin 1.



Immunocytochemical staining of HepG2 cells with anti-Sorting nexin 1 antibody (Cat#AGI1733, 1:1,000). Nuclei were stained blue with DAPI; Sorting nexin 1 was stained magenta with Alexa Fluor<sup>®</sup> 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20  $\mu$ m.