SYSY Antibodies

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Sorting Nexin4

Cat.No. 392 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin was added for stabilization. For **reconstitution** add 50 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C to -80°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: 1 : 1000 (AP staining) **IP**: not tested yet **ICC**: 1 : 500 **IHC**: not tested yet **IHC-P (FFPE)**: not tested yet
Immunogen	Synthetic peptide corresponding to AA 1 to 21 from mouse SNX4 (UniProt Id: Q91YJ2)
Reactivity	Reacts with: rat (E9PU13), mouse (Q91YJ2). Other species not tested yet.
Specificity	K.D. validated PubMed: 33106523
Matching control	392-0P

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Background

Sorting **Nex**in **4** (**SNX 4**) is involved in preventing the degradation of endocytosed transferrin receptors and their sorting into the Rab 11a recycling pathway. It may also form complexes with clathrin and dynein and binds several additional receptors for the epidermal growth factor, insulin and leptin.

Selected References for 392 003

The endosomal protein sorting nexin 4 is a synaptic protein.
Vazquez-Sanchez S, Gonzalez-Lozano MA, Walfenzao A, Li KW, van Weering JRT
Scientific reports (2020) 101: 18239. . **WB, ICC, EM; KD verified; tested species: mouse**

Endosomal sorting protein SNX4 limits synaptic vesicle docking and release.
Poppinga J, Barrett NJ, Cornelisse LN, Verhage M, van Weering JRT
eLife (2024) 13: . . **WB, ICC; tested species: mouse**

Spatiotemporal H2O2 flashes coordinate actin cytoskeletal remodeling and regulate cell migration and wound healing.
O'Mara M, Zhang S, Knaus UG
Nature communications (2025) 161: 6868. . **ICC; tested species: human**

Selected General References

Reggies/flotillins interact with Rab11a and SNX4 at the tubulovesicular recycling compartment and function in transferrin receptor and E-cadherin trafficking.
Solis GP et al. Mol. Biol. Cell (2013) PubMed:23825023

SNX4 in complex with clathrin and dynein: implications for endosome movement.
Skånland SS et al. PLoS ONE (2009) PubMed:19529763

SNX4 coordinates endosomal sorting of TfnR with dynein-mediated transport into the endocytic recycling compartment.
Traer CJ et al. Nat. Cell Biol. (2007) PubMed:17994011

A large family of endosome-localized proteins related to sorting nexin 1.
Teasdale RD et al. Biochem. J. (2001) PubMed:11485546

Identification of a family of sorting nexin molecules and characterization of their association with receptors.
Haft CR et al. Mol. Cell. Biol. (1998) PubMed:9819414

Access the online factsheet including applicable protocols at https://sysy.com/product/392003 or scan the QR-code.

FAQ - How should I store my antibody?

Shipping Conditions

- All SYSY antibodies and control proteins/peptides are shipped lyophilized (vacuum freeze-dried). In this form, they remain stable without loss of quality at ambient temperatures for several weeks.

Storage of Sealed Vials after Delivery

- **Unlabeled** and **biotin-labeled antibodies** and **control proteins** should be stored at **4°C** before reconstitution. **Do not freeze lyophilized antibodies**. Temperatures below 0°C may impair performance.
- **Fluorescence-labeled antibodies** should be reconstituted immediately upon receipt. Long-term storage of lyophilized fluorophore-conjugates may cause aggregation.
- **Control peptides** should be stored at -20°C before reconstitution.

Long Term Storage after Reconstitution (General Considerations)

- **Do not use frost-free ("no-frost") freezers.** These units periodically warm to remove ice buildup, causing freeze–thaw cycles that can damage antibodies.
- Store vials in areas with minimal temperature fluctuation - preferably toward the back of the freezer, not on the door.
- Aliquot reconstituted antibodies and store at –20°C to –80°C.
- Avoid very small aliquots (<20 µL), as evaporation and adsorption to tube surfaces can reduce antibody concentration and activity.
- Use the smallest practical storage vial to minimize surface area.
- Adding glycerol to a final concentration of 50% prevents freezing at -20°C, allowing storage in liquid form and effectively avoiding freeze–thaw cycles.

Product Specific Hints for Storage

Control proteins / peptides

- Store at -20°C to -80°C

Monoclonal Antibodies

- **Ascites and hybridoma supernatant:** Store at -20°C to -80°C
  Prolonged storage at 4°C is not recommended, as proteases present in ascites may degrade antibodies.
- **Purified IgG:** Store at -20°C to -80°C
  Adding a carrier protein (e.g., BSA) enhances long-term stability.
  Many SYSY antibodies already contain carrier proteins - refer to the respective datasheet for details.

Polyclonal Antibodies

- **Crude antisera:** Can be stored at 4°C with antimicrobials added, but -20°C to -80°C is preferred
- **Affinity-purified antibodies:** Less stable than antisera; store at -20°C to -80°C
  Adding a carrier protein such as BSA improves long-term stability.
  Most SYSY antibodies already contain carrier proteins - refer to the respective datasheet for details.

Fluorescence-labeled Antibodies

- Store as a liquid with 1:1 (v/v) glycerol at -20°C, and protect from light exposure

Avoid repeated freeze-thaw cycles for all antibodies!

FAQ - How should I reconstitute my antibody?

Reconstitution

- All purified SYSY antibodies are lyophilized from PBS. To reconstitute the antibody in PBS, add the volume of deionized water specified in the corresponding datasheet. If a larger final volume is desired, first add the recommended amount of water, then adjust with PBS and, if needed, add a stabilizing carrier protein (e.g., BSA) to a final concentration of 2%. Some SYSY antibodies already contain albumin; please take this into account before adding additional carrier protein.

For complete reconstitution, carefully remove the vial cap. After adding water, briefly vortex the solution. To collect the liquid at the bottom of the vial, place the vial inside a 50 ml centrifuge tube padded with paper and centrifuge briefly.

- If desired, small amounts of azide or thimerosal may be added to prevent microbial growth. This is particularly recommended when storing an aliquot at 4°C.
- After reconstitution of fluorescence-labeled antibodies, add glycerol 1:1 (v/v) to achieve a final concentration of 50%. This prevents freezing at –20°C and keeps the antibody in liquid form, effectively avoiding freeze–thaw cycles.
- Glycerol may also be added to unlabeled primary antibodies as a general measure to prevent freeze–thaw damage.
- For further guidance, please refer to our **storage tips** and recommendations for reconstituted antibodies, control peptides, and control proteins.