SYSY Antibodies

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Syntaxin8

Cat.No. 110 083; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin and azide were 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 : 100 up to 1 : 5000 (AP staining) **IP**: yes **ICC**: 1 : 100 up to 1 : 500 **IHC**: not tested yet **IHC-P (FFPE)**: not tested yet
Immunogen	Recombinant protein corresponding to AA 1 to 215 from rat Syntaxin8 (UniProt Id: Q9Z2Q7)
Reactivity	Reacts with: human (Q9UNK0), rat (Q9Z2Q7), mouse (O88983), hamster. No signal: zebrafish. Other species not tested yet.
Matching control	110-8P

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

Background

Syntaxin 8, a member of the SNARE family of proteins, is functionally related to the C-terminus of SNAP 25. Syntaxin 8 is localized to endosomal membranes of a wide variety of cells and is involved in the fusion of late endosomes and lysosomes. In endosomal membranes, syntaxin 8 forms complexes with endobrevin, syntaxin 7 and vti1b.

Selected References for 110 083

SNARE protein expression and localization in human cytotoxic T lymphocytes.
Pattu V, Qu B, Schwarz EC, Strauss B, Weins L, Bhat SS, Halimani M, Marshall M, Rettig J, Hoth M
European journal of immunology (2012) 422: 470-5. . **WB, ICC**

Syntaxin 6 and Vti1b form a novel SNARE complex, which is up-regulated in activated macrophages to facilitate exocytosis of tumor necrosis Factor-alpha.
Murray RZ, Wylie FG, Khromykh T, Hume DA, Stow JL
The Journal of biological chemistry (2005) 28011: 10478-83. . **WB, IP**

A trap mutant reveals the physiological client spectrum of TRC40.
Coy-Vergara J, Rivera-Monroy J, Urlaub H, Lenz C, Schwappach B
Journal of cell science (2019) 13213: . . **WB, ICC; tested species: human**

MARCH-II is a syntaxin-6-binding protein involved in endosomal trafficking.
Nakamura N, Fukuda H, Kato A, Hirose S
Molecular biology of the cell (2005) 164: 1696-710. . **WB, ICC**

Proteomic analysis reveals the composition of glutamatergic organelles of auditory inner hair cell.
Cepeda AP, Ninov M, Neef J, Parfentev I, Kusch K, Reisinger E, Jahn R, Moser T, Urlaub H
Molecular & cellular proteomics : MCP (2023) : 100704. . **IHC; tested species: mouse**

Dysregulation of the AP2M1 phosphorylation cycle by LRRK2 impairs endocytosis and leads to dopaminergic neurodegeneration.
Liu Q, Bautista-Gomez J, Higgins DA, Yu J, Xiong Y
Science signaling (2021) 14693: . . **WB; tested species: mouse**

Cardiac SNARE Expression in Health and Disease.
Bowman PRT, Smith GL, Gould GW
Frontiers in endocrinology (2019) 10: 881. . **WB; tested species: mouse**

Oxidized phagosomal NOX2 complex is replenished from lysosomes.
Dingjan I, Linders PT, van den Bekerom L, Baranov MV, Halder P, Ter Beest M, van den Bogaart G
Journal of cell science (2017) 1307: 1285-1298. . **ICC; tested species: human**

Salmonella acquires lysosome-associated membrane protein 1 (LAMP1) on phagosomes from Golgi via SipC protein-mediated recruitment of host Syntaxin6.
Madan R, Rastogi R, Parashuraman S, Mukhopadhyay A
The Journal of biological chemistry (2012) 2878: 5574-87. . **WB**

Syntaxin 11 binds Vti1b and regulates late endosome to lysosome fusion in macrophages.
Offenhäuser C, Lei N, Roy S, Collins BM, Stow JL, Murray RZ
Traffic (Copenhagen, Denmark) (2011) 126: 762-73. . **WB**

A VAMP7/Vti1a SNARE complex distinguishes a non-conventional traffic route to the cell surface used by KChIP1 and Kv4 potassium channels.
Flowerdew SE, Burgoyne RD
The Biochemical journal (2009) 4183: 529-40. . **ICC**

Molecular anatomy of a trafficking organelle.
Takamori S, Holt M, Stenius K, Lemke EA, Grønborg M, Riedel D, Urlaub H, Schenck S, Brügger B, Ringler P, Müller SA, et al.
Cell (2006) 1274: 831-46. . **WB**

Access the online factsheet including applicable protocols at https://sysy.com/product/110083 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.