SYSY Antibodies

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Syncollin

Cat.No. 225 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. For **reconstitution** add 100 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 up to 1 : 5000 (AP staining) **IP**: not tested yet **ICC**: not tested yet **IHC**: not tested yet **IHC-P (FFPE)**: not recommended
Clone	87.1
Subtype	IgG1 (κ light chain)
Immunogen	Recombinant protein corresponding to AA 22 to 134 from rat Syncollin (UniProt Id: O35775)
Reactivity	Reacts with: rat (O35775), mouse (Q8VCK7). Other species not tested yet.

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

Background

The exocrine pancreas is specialized for the synthesis and secretion of digestive enzymes which are stored in zymogen granules. **Syncollin** is predominantly associated with the lumenal membrane surface of these organelles. It forms oligomers and can bind to to syntaxin 1 and syntaxin 2 in a calcium dependent manner. The exact physiological role has not yet been elucidated.

Selected References for 225 011

The secretory granule protein syncollin localizes to HL-60 cells and neutrophils.
Bach JP, Borta H, Ackermann W, Faust F, Borchers O, Schrader M
The journal of histochemistry and cytochemistry : official journal of the Histochemistry Society (2006) 548: 877-88. . **WB; tested species: rat**

Interaction of syncollin with GP-2, the major membrane protein of pancreatic zymogen granules, and association with lipid microdomains.
Kalus I, Hodel A, Koch A, Kleene R, Edwardson JM, Schrader M
The Biochemical journal (2002) 362Pt 2: 433-42. . **WB**

Loss of the zymogen granule protein syncollin affects pancreatic protein synthesis and transport but not secretion.
Antonin W, Wagner M, Riedel D, Brose N, Jahn R
Molecular and cellular biology (2002) 225: 1545-54. . **WB; KO verified; tested species: mouse**

Analysis of the association of syncollin with the membrane of the pancreatic zymogen granule.
An SJ, Hansen NJ, Hodel A, Jahn R, Edwardson JM
The Journal of biological chemistry (2000) 27515: 11306-11. . **WB**

Selected General References

The secretory granule protein syncollin localizes to HL-60 cells and neutrophils.
Bach JP et al. J. Histochem. Cytochem. (2006) PubMed:16517980

Interaction of syncollin with GP-2, the major membrane protein of pancreatic zymogen granules, and association with lipid microdomains.
Kalus I et al. Biochem. J. (2002) PubMed:11853552

Loss of the zymogen granule protein syncollin affects pancreatic protein synthesis and transport but not secretion.
Antonin W et al. Mol. Cell. Biol. (2002) PubMed:11839820

Analysis of the association of syncollin with the membrane of the pancreatic zymogen granule.
An SJ et al. J. Biol. Chem. (2000) PubMed:10753942

Access the online factsheet including applicable protocols at https://sysy.com/product/225011 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.