SYSY Antibodies

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GFP

Cat.No. 132 002; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl antiserum, lyophilized. For **reconstitution** add 200 µl H_2O, then aliquot and store at -20°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 : 20000 (AP staining) **IP**: yes **ICC**: 1 : 500 **IHC**: 1 : 500 **IHC-P (FFPE)**: external data (see remarks) **EM**: external data (see remarks)
Immunogen	Recombinant protein corresponding to AA 1 to 238 from jellyfish GFP (UniProt Id: P42212)
Specificity	Recognizes GFP, mEGFP, superfolder GFP, most common CFP and YFP variants.Does not cross-react to mCherry, mRFP, dsRed, mTagBFP or their most common derivatives.
Remarks	**IHC-P (FFPE)**: This antibody has been successfully applied and published for this method by customers (see application-specific references). It has not been validated using our standard protocols. **EM**: This antibody has been successfully applied and published for this method by customers (see application-specific references).

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

Background

Green **f**luorescent **p**rotein **GFP** and its derivates have become universal tools in cell biology. These antibodies allow immunoprecipitation and visualization of GFP fusion proteins on immunoblots and by immunocytochemistry.

Selected References for 132 002

PBX transcription factors drive pulmonary vascular adaptation to birth.
McCulley DJ, Wienhold MD, Hines EA, Hacker TA, Rogers A, Pewowaruk RJ, Zewdu R, Chesler NC, Selleri L, Sun X
The Journal of clinical investigation (2018) 1282: 655-667. . **IHC, IHC-P; tested species: mouse**

Neuronal palmitoyl acyl transferases exhibit distinct substrate specificity.
Huang K, Sanders S, Singaraja R, Orban P, Cijsouw T, Arstikaitis P, Yanai A, Hayden MR, El-Husseini A
FASEB journal : official publication of the Federation of American Societies for Experimental Biology (2009) 238: 2605-15. . **WB, ICC**

Systemic proteome phenotypes reveal defective metabolic flexibility in Mecp2 mutants.
Zlatic SA, Werner E, Surapaneni V, Lee CE, Gokhale A, Singleton K, Duong D, Crocker A, Gentile K, Middleton F, Dalloul JM, et al.
Human molecular genetics (2023) : . . **WB, IP; tested species: mouse**

Different mechanisms of synapsin-induced vesicle clustering at inhibitory and excitatory synapses.
Song SH, Augustine GJ
Cell reports (2023) 428: 113004. . **IP, ICC; tested species: mouse**

The Calmodulin Binding Region of the Synaptic Vesicle Protein Mover Is Required for Homomeric Interaction and Presynaptic Targeting.
Akula AK, Zhang X, Viotti JS, Nestvogel D, Rhee JS, Ebrecht R, Reim K, Wouters F, Liepold T, Jahn O, Bogeski I, et al.
Frontiers in molecular neuroscience (2019) 12: 249. . **WB, ICC; tested species: mouse**

Neuron to glia signaling triggers myelin membrane exocytosis from endosomal storage sites.
Trajkovic K, Dhaunchak AS, Goncalves JT, Wenzel D, Schneider A, Bunt G, Nave KA, Simons M
The Journal of cell biology (2006) 1726: 937-48. . **EM**

Ascl1 Represses Müller Glial and Promotes Rod Photoreceptor Fate Through Repressing Notch Signaling in Late Retinal Progenitor Cells.
Chen C, Xing Z, Liang H, He Q, Chen S
Investigative ophthalmology & visual science (2026) 6710: 41. . **IHC; tested species: mouse**

GluN3A Is Required for Coordinated Postnatal Development of Axonal and Dendritic Branching Patterns in Mouse L2/3 Callosal Projection Neurons.
Crawley O, Corral-Sanchez B, Navarro AI, Marco S, Perez-Otaño I
The Journal of neuroscience : the official journal of the Society for Neuroscience (2026) 4625: . . **IHC; tested species: mouse**

Neuronal expression of retinoid-related orphan receptor gamma (RORγ) and revisiting its role in the central nervous system.
Reid L, Ganapathiraju S, Mancinelli S, Kagan D, Sprouse G, Li A, Fazio M, German W, Fan C, Saengsot R, Feustel P, et al.
Scientific reports (2026) 16: . . **IHC; tested species: mouse**

Synaptic vesicle fusion promotes phosphatidylinositol 4-phosphate synthesis for efficient synaptic transmission.
Yoshida T, Kawano H, Omi J, Hori T, Kobayashi Y, Saitoh N, Aoki J, Takamori S
Cell reports (2025) 445: 115634. . **ICC; tested species: mouse**

Beyond Glycolysis: Aldolase A is a Novel Effector in Reelin Mediated Dendritic Development.
Lagani GD, Lin W, Natarajan S, Lampl N, Harper ER, Emili A, Beffert U, Ho A
bioRxiv : the preprint server for biology (2024) : . . **IHC; tested species: mouse**

Adamtsl3 mediates DCC signaling to selectively promote GABAergic synapse function.
Cramer TML, Pinan-Lucarre B, Cavaccini A, Damilou A, Tsai YC, Bhat MA, Panzanelli P, Rama N, Mehlen P, Benke D, Karayannis T, et al.
Cell reports (2023) 428: 112947. . **WB; tested species: mouse**

Access the online factsheet including applicable protocols at https://sysy.com/product/132002 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.