SYSY Antibodies

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GFP

Cat.No. 132 005; Polyclonal Guinea pig 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 : 500 up to 1 : 1000 (AP staining) **IP**: yes **ICC**: 1 : 500 up to 1 : 1000 **IHC**: 1 : 500 **IHC-P (FFPE)**: not tested yet
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.

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 132 005

TBC1D24 regulates axonal outgrowth and membrane trafficking at the growth cone in rodent and human neurons.
Aprile D, Fruscione F, Baldassari S, Fadda M, Ferrante D, Falace A, Buhler E, Sartorelli J, Represa A, Baldelli P, Benfenati F, et al.
Cell death and differentiation (2019) : . . **ICC, IHC; tested species: rat**

Ligand-independent EPHA2 signaling sustains neural progenitors via ECSIT and NAD.
Diem Nghi T, My Nhung TT, Kim S, Yun J, Tien NTN, Lee A, Jung M, Jang EJ, Goo BS, Yoo JY, Shin SR, et al.
EMBO reports (2026) : . . **ICC, IHC; tested species: mouse**

Patient-derived tissue cultures complement neurospheres for preclinical evaluation of AAV-mediated gene delivery in glioblastoma.
Köhler F, Hess K, Koloske C, Gaunitz F, Rosahl SK, Gerlach R, Kallendrusch S
Journal of neuro-oncology (2026) 1793: . . **ICC; tested species: human**

Dorsal hippocampal CA3 to CA1 circuit maintains contextual cocaine memories in a rat model of drug relapse.
Qi S, Soto DA, Pruitt AY, Ritchie JL, Reeves DA, Fuchs RA
Neuropharmacology (2026) 298: 111064. . **IHC; tested species: rat**

Transcription factor 21 deletion from podocyte precursors as a model for congenital nephrotic syndrome.
Dalal V, Zhou Y, Deb DK, Thomson BR, Nelson JW, Ledogar G, Misener S, Maekawa H, Chang A, Chung E, Park JS, et al.
American journal of physiology. Renal physiology (2026) 3306: F746-F760. . **IHC; tested species: mouse**

Differentiated Presynaptic Input to OLM□2 Cells Along the Hippocampal Dorsoventral Axis: Implications for Hippocampal Microcircuit Function.
Thulin A, Henriksson K, Nogueira I, Kullander K
Hippocampus (2025) 355: e70026. . **IHC; tested species: mouse**

A pH-sensitive closed-loop nanomachine to control hyperexcitability at the single neuron level.
Merolla A, Michetti C, Moschetta M, Vacca F, Ciano L, Emionite L, Astigiano S, Romei A, Horenkamp S, Berglund K, Gross RE, et al.
Nature communications (2024) 151: 5609. . **IHC; tested species: mouse**

A Selective Projection from the Subthalamic Nucleus to Parvalbumin-Expressing Interneurons of the Striatum.
Kondabolu K, Doig NM, Ayeko O, Khan B, Torres A, Calvigioni D, Meletis K, Koós T, Magill PJ
eNeuro (2023) 107: . . **IHC; tested species: mouse**

Reduced dynamin-1 levels in neurons lacking MUNC18-1.
Lammertse HCA, Moro A, Saarloos I, Toonen RF, Verhage M
Journal of cell science (2022) 13522: . . **ICC; tested species: mouse**

Pharmacological signature and target-specificity of inhibitory circuits formed by Martinotti cells in the mouse barrel cortex.
Donato C, Victorino DB, Cabezas C, Aguirre A, Lourenço J, Potier MC, de San Martin JZ, Bacci A
The Journal of neuroscience : the official journal of the Society for Neuroscience (2022) : . . **IHC; tested species: mouse**

Neuroprotective activity of ursodeoxycholic acid in CHMP2BIntron5 models of frontotemporal dementia.
West RJH, Ugbode C, Fort-Aznar L, Sweeney ST
Neurobiology of disease (2020) 144: 105047. . **ICC; tested species: rat**

JNK signalling regulates antioxidant responses in neurons.
Ugbode C, Garnham N, Fort-Aznar L, Evans GJO, Chawla S, Sweeney ST
Redox biology (2020) 37: 101712. . **ICC; tested species: rat**

The follicle epithelium in the Drosophila ovary is maintained by a small number of stem cells.
Fadiga J, Nystul TG
eLife (2019) 8: . . **IHC; tested species: drosophila**

Access the online factsheet including applicable protocols at https://sysy.com/product/132005 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.