SYSY Antibodies

Rudolf-Wissell-Str. 28a
37079 Göttingen, Germany
Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

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**: yes **EM**: yes
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 132 002

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**

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**

Pharmacological perturbation of CXCL1 signaling alleviates neuropathogenesis in a model of HEVA71 infection.
Gunaseelan S, Ariffin MZ, Khanna S, Ooi MH, Perera D, Chu JJH, Chua JJE
Nature communications (2022) 131: 890. . **WB; tested species: rat**

Presence of ethanol-sensitive and ethanol-insensitive glycine receptors in the ventral tegmental area and prefrontal cortex in mice.
Araya A, Gallegos S, Viveros R, San Martin L, Muñoz B, Harvey RJ, Zeilhofer HU, Aguayo LG
British journal of pharmacology (2021) 17823: 4691-4707. . **IHC; tested species: mouse**

FEZ1 forms complexes with CRMP1 and DCC to regulate axon and dendrite development.
Chua JY, Ng SJ, Yagensky O, Wanker EE, Chua JJE
eNeuro (2021) : . . **WB; tested species: rat**

Golgi-Dependent Copper Homeostasis Sustains Synaptic Development and Mitochondrial Content.
Hartwig C, Méndez GM, Bhattacharjee S, Vrailas-Mortimer AD, Zlatic SA, Freeman AAH, Gokhale A, Concilli M, Werner E, Sapp Savas C, Rudin-Rush S, et al.
The Journal of neuroscience : the official journal of the Society for Neuroscience (2021) 412: 215-233. . **IHC; tested species: drosophila**

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 our antibodies and control proteins / peptides are shipped lyophilized (vacuum freeze-dried) and are stable in this form 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. **They must not be stored in the freezer when still lyophilized!** Temperatures below zero may cause loss of performance.
- **Fluorescence-labeled antibodies** should be reconstituted immediately upon receipt. Long term storage (several months) may lead to aggregation.
- **Control peptides** should be kept at -20°C before reconstitution.

Long Term Storage after Reconstitution (General Considerations)

- The storage freezer must not be of the frost-free variety ("no-frost freezer"). This cycle between freezing and thawing (to reduce frost-build-up), which is exactly what should be avoided. For the same reason, antibody vials should be placed in an area of the freezer that has minimal temperature fluctuations, for instance towards the back rather than on a door shelf.
- Aliquot the antibody and store frozen (-20°C to -80°C). Avoid very small aliquots (below 20 µl) and use the smallest storage vial or tube possible. The smaller the aliquot, the more the stock concentration is affected by evaporation and adsorption of the antibody to the surface of the storage vial or tube. Adsorption of the antibody to the surface leads to a substantial loss of activity.
- The addition of glycerol to a final concentration of 50% lowers the freezing point of your stock and keeps your antibody at -20°C in liquid state. This efficiently avoids freeze and thaw cycles.

Product Specific Hints for Storage

Control proteins / peptides

- Store at -20°C to -80°C.

Monoclonal Antibodies

- **Ascites** and **hybridoma supernatant** should be stored at -20°C up to -80°C. **Prolonged storage at 4°C is not recommended!** Unlike serum, ascites may contain proteases that will degrade the antibodies.
- **Purified IgG** should be stored at -20°C up to -80°C. Adding a carrier protein like BSA will increase long term stability. Many of our antibodies already contain carrier proteins. Please refer to the data-sheet for detailed information.

Polyclonal Antibodies

- **Crude antisera**: With anti-microbials added, they may be stored at 4°C. However, frozen storage (-20°C up to -80°C) is preferable.
- **Affinity purified antibodies**: Less robust than antisera. Storage at -20°C up to -80°C is recommended. Adding a carrier protein like BSA will increase long term stability. Most of our antibodies already contain carrier proteins. Please refer to the data-sheet for detailed information.

Fluorescence-labeled Antibodies

- Store as a liquid with 1 : 1 (v/v) glycerol at -20°C. Protect these antibodies from light exposure.

Avoid repeated freeze-thaw cycles for all antibodies!

FAQ - How should I reconstitute my antibody?

Reconstitution

- All our purified antibodies are lyophilized from PBS. To reconstitute the antibody in PBS, add the amount of deionized water given in the respective datasheet. If higher volumes are preferred, add water as mentioned above and then the desired amount of PBS and a stabilizing carrier protein (e.g. BSA) to a final concentration of 2%. Some of our antibodies already contain albumin. Take this into account when adding more carrier protein.
  For complete reconstitution, carefully remove the lid. After adding water, briefly vortex the solution. You can spin down the liquid by placing the vial into a 50 ml centrifugation tube filled with paper.
- If desired, add small amounts of azide or thimerosal to prevent microbial growth. This is especially recommended if you want to keep an aliquot a 4°C.
- After reconstitution of fluorescence-labeled antibodies, add 1 : 1 (v/v) glycerol to a final concentration of 50%. This lowers the freezing point of your stock and keeps your antibody in liquid state at -20°C.
- Glycerol may also be added to unlabeled primary antibodies. It is a suitable way to avoid freeze-thaw cycles.
- Please refer to our **tips and hints for subsequent storage** of reconstituted antibodies and control peptides and proteins.