

PSD95 PDZ domain

Cat.No. 124 308; Recombinant Guinea pig antibody, 50 µg recombinant IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg purified recombinant IgG, lyophilized. Albumin and azide were added for stabilization. For reconstitution add 50 µl H ₂ O 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 (AP staining) IP: not tested yet ICC: 1 : 500 IHC: not tested yet IHC-P (FFPE): not tested yet IHC-G: 1 : 500 (see remarks)
Clone	Gp108E10
Subtype	IgG2 (κ light chain)
Immunogen	Recombinant protein corresponding to PDZ-domain of mouse PSD95 (UniProt Id: Q62108)
Reactivity	Reacts with: rat (P31016), mouse (Q62108), chicken, human (P78352). Other species not tested yet.
Specificity	K.O. validated
Matching control	124-01P
Remarks	This antibody is a chimeric antibody based on the well known monoclonal mouse antibody clone 108E10. The constant regions of the heavy and light chains have been replaced by Guinea pig specific sequences. Therefore, the antibody can be used with standard anti-Guinea pig secondary reagents. The antibody has been expressed in mammalian cells. IHC-G: 9% glyoxal fixation is recommended.

Background

PSD95 (postsynaptic density protein **95** kDa, also called **SAP 90**: synapse associated protein of **90** kDa and **DLG 4**) is a component of postsynaptic densities in central synapses. It contains three PDZ domains. The first and second PDZ domain localizes NMDA receptors and K⁺ channels to synapses, the third binds to neuroligins which are neuronal cell adhesion molecules that interact with β-neurexins and form intercellular junctions. Thus different PDZ domains of PSD95 might be specialized for distinct functions. Read more: PSD95-antibody

Selected References for 124 308

- Astrocyte Enrichment of 3D Cortical Constructs Enhances Brain Repair.
Cruz EM, Soares LC, Greene G, Messori F, Abuelem M, Li M, Andersen C, Domocos M, Vitiello E, Razak RA, Lawston M, et al. *Advanced science* (Weinheim, Baden-Wurttemberg, Germany) (2026) : e07423. . **IHC, ICC; tested species: mouse**
- Stathmin 1 regulates epileptic seizures by influencing GABAA R-mediated inhibitory synaptic activity.
Yang M, Hu Y, Wu J, Zhang H, Li J, Wang X, Xu X
Neurobiology of disease (2026) 220: 107310. . **IHC; tested species: human**
- Localization and Functional Characterization of MDGA1 in Mouse Hippocampus.
Sandoval MA, Bemben MA, Leana-Sandoval G, Le AA, Acosta-Soto L, Chau VN, Incontro S, Gall CM, Nicoll RA, Díaz-Alonso J
The Journal of neuroscience : the official journal of the Society for Neuroscience (2026) 466: . . **IHC; tested species: mouse**
- Microglial Rac1 is essential for experience-dependent brain plasticity and cognitive performance.
Socodato R, Almeida TO, Portugal CC, Santos ECS, Tedim-Moreira J, Galvão-Ferreira J, Canedo T, Baptista FI, Magalhães A, Ambrósio AF, Brakebusch C, et al.
Cell reports (2023) 4212: 113447. . **IHC; tested species: mouse**

Selected General References

- Proteins of the postsynaptic density.
Banker G et al. *J Cell Biol* (1974) PubMed:4419608
- Human postsynaptic density-95 (PSD95): location of the gene (DLG4) and possible function in nonneural as well as in neural tissues.
Stathakis DG et al. *Genomics* (1997) PubMed:9286702
- PSD-95 is associated with the postsynaptic density and not with the presynaptic membrane at forebrain synapses.
Hunt CA et al. *J Neurosci* (1996) PubMed:8778289

Access the online factsheet including applicable protocols at <https://sysy.com/product/124308> or scan the QR-code.



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

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.