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

Bovine Profilin

Cat.No. 308 011; 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 : 500 up to 1 : 5000 (AP staining) **IP**: not tested yet **ICC**: external data (see remarks) **IHC**: yes **IHC-P (FFPE)**: 1 : 1000
Clone	2H11
Subtype	IgG1 (λ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 140 from bovine Profilin1 (UniProt Id: P02584)
Reactivity	Reacts with: human (P07737), cow, rabbit, Guinea pig, opossum. No signal: mouse (P62962). Other species not tested yet.
Remarks	**ICC**: 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.

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

Background

Profilins are small proteins (14-17 kDa) which are involved in the regulation of the cellular microfilament system. They are associated with highly dynamic microfilament structures present at cellular membranes. Profilins have been found together with lamellipodia, focal adhesions, surface ruffles and on intracellular vesicles and have been shown to interact with different cytoskeleton proteins like actin, gephyrin and the Arp 2/3 complex. Recently a tumor suppression activity has been described for profilin.

Selected References for 308 011

Suppression of tumorigenicity in breast cancer cells by the microfilament protein profilin 1.
Janke J, Schlüter K, Jandrig B, Theile M, Kölble K, Arnold W, Grinstein E, Schwartz A, Estevéz-Schwarz L, Schlag PM, Jockusch BM, et al.
The Journal of experimental medicine (2000) 19110: 1675-86. . **WB, ICC**

Effects of single amino acid substitutions in the actin-binding site on the biological activity of bovine profilin I.
Schlüter K, Schleicher M, Jockusch BM
Journal of cell science (1998) 111 (Pt 22): 3261-73. . **WB, ICC**

Proteomic comparison of nasopharyngeal cancer cell lines C666-1 and NP69 identifies down-regulation of annexin II and beta2-tubulin for nasopharyngeal carcinoma.
Chan CM, Wong SC, Lam MY, Hui EP, Chan JK, Lo ES, Cheuk W, Wong MC, Tsao SW, Chan AT
Archives of pathology & laboratory medicine (2008) 1324: 675-83. . **IHC-P; tested species: human**

Complex formation between the postsynaptic scaffolding protein gephyrin, profilin, and Mena: a possible link to the microfilament system.
Giesemann T, Schwarz G, Nawrotzki R, Berhörster K, Rothkegel M, Schlüter K, Schrader N, Schindelin H, Mendel RR, Kirsch J, Jockusch BM, et al.
The Journal of neuroscience : the official journal of the Society for Neuroscience (2003) 2323: 8330-9. . **IHC**

Proteomics reveals substantial differences between in vitro matured abattoir-derived and in vivo matured oocytes in cattle.
Herbicht R, Paredes Osorio BJ, Klein C
Animal reproduction science (2025) 283: 108045. . **ICC; tested species: cow**

Actin filaments at the leading edge of cancer cells are characterized by a high mobile fraction and turnover regulation by profilin I.
Lorente G, Syriani E, Morales M
PloS one (2014) 91: e85817. . **ICC**

Functional characterization of green fluorescent protein-profilin fusion proteins.
Wittenmayer N, Rothkegel M, Jockusch BM, Schlüter K
European journal of biochemistry (2000) 26716: 5247-56. . **WB**

A role for polyproline motifs in the spinal muscular atrophy protein SMN. Profilins bind to and colocalize with smn in nuclear gems.
Giesemann T, Rathke-Hartlieb S, Rothkegel M, Bartsch JW, Buchmeier S, Jockusch BM, Jockusch H
The Journal of biological chemistry (1999) 27453: 37908-14. . **ICC**

Selected General References

The actin-binding protein profilin I is localized at synaptic sites in an activity-regulated manner.
Neuhoff H et al. Eur. J. Neurosci. (2005) PubMed:15654839

Tumor suppressor activity of profilin requires a functional actin binding site.
Wittenmayer N et al. Mol. Biol. Cell (2004) PubMed:14767055

Access the online factsheet including applicable protocols at https://sysy.com/product/308011 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.