

## Snapin

Cat.No. 148 102; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

### Data Sheet

Reconstitution/ Storage	200 µl antiserum, lyophilized. For <b>reconstitution</b> add 200 µl H <sub>2</sub> O, 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	<b>WB:</b> 1 : 100 up to 1 : 5000 (AP staining) <b>IP:</b> not recommended <b>ICC:</b> not tested yet <b>IHC:</b> not recommended <b>IHC-P:</b> not tested yet
Immunogen	Synthetic peptide corresponding to AA 117 to 136 from rat Snapin (UniProt Id: P60192)
Reactivity	Reacts with: human (O95295), rat (P60192), mouse (Q9Z266). Other species not tested yet.
Matching control	148-1P
Remarks	Since snapin is present in very low concentrations long exposure time is recommended.

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

## Background

**Snapin**, also referred to as **Snapap**, was initially identified as a SNAP 25 interacting protein which enhances the binding of synaptotagmin 1 to SNAREs in a phosphorylation dependent manner. Later an ubiquitous expression pattern in neuronal and non-neuronal cells and interaction with SNAP 23 was described. The protein contains heptad repeats typical for coiled coils in its C-terminal part. The role of this protein in SNARE mediated fusion is still under discussion.

## Selected References for 148 102

Snapin recruits dynein to BDNF-TrkB signaling endosomes for retrograde axonal transport and is essential for dendrite growth of cortical neurons.

Zhou B, Cai Q, Xie Y, Sheng ZH  
Cell reports (2012) 21: 42-51. . **WB; tested species: mouse**

The role for HNF-1beta-targeted collectrin in maintenance of primary cilia and cell polarity in collecting duct cells.  
Zhang Y, Wada J, Yasuhara A, Iseda I, Eguchi J, Fukui K, Yang Q, Yamagata K, Hiesberger T, Igarashi P, Zhang H, et al.  
PloS one (2007) 25: e414. . **WB**

Molecular anatomy of a trafficking organelle.  
Takamori S, Holt M, Stenius K, Lemke EA, Grønborg M, Riedel D, Urlaub H, Schenck S, Brügger B, Ringler P, Müller SA, et al.  
Cell (2006) 1274: 831-46. . **WB**

A novel role for snapin in dendrite patterning: interaction with cypin.  
Chen M, Lucas KG, Akum BF, Balasingam G, Stawicki TM, Provost JM, Riefler GM, Jörnsten RJ, Firestein BL  
Molecular biology of the cell (2005) 1611: 5103-14. . **WB; tested species: rat**

Reinvestigation of the role of snapin in neurotransmitter release.  
Vites O, Rhee JS, Schwarz M, Rosenmund C, Jahn R  
The Journal of biological chemistry (2004) 27925: 26251-6. . **WB**

## Selected General References

Identification and characterization of Snapin as a ubiquitously expressed SNARE-binding protein that interacts with SNAP23 in non-neuronal cells.

Buxton P, Zhang XM, Walsh B, Sriratana A, Schenbergl I, Manickam E, Rowe T  
The Biochemical journal (2003) 375Pt 2: 433-40. .

Phosphorylation of Snapin by PKA modulates its interaction with the SNARE complex.  
Chheda MG, Ashery U, Thakur P, Rettig J, Sheng ZH  
Nature cell biology (2001) 34: 331-8. .

Snapin: a SNARE-associated protein implicated in synaptic transmission.  
Ilardi JM, Mochida S, Sheng ZH  
Nature neuroscience (1999) 22: 119-24. .

Access the online factsheet including applicable protocols at <https://sysy.com/product/148102> 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.