

## Syntenin

Cat.No. 133 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

### Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin was added for stabilization. For <b>reconstitution</b> add 50 µl H <sub>2</sub> 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	<b>WB:</b> 1 : 100 up to 1 : 1000 (AP staining) <b>IP:</b> yes <b>ICC:</b> yes <b>IHC:</b> not tested yet <b>IHC-P:</b> 1 : 1000
Immunogen	Recombinant protein corresponding to AA 1 to 298 from human Syntenin1 (UniProt Id: O00560)
Reactivity	Reacts with: human (O00560, Q9H190). Weaker signal: rat (Q9JI92, Q4KLN0), mouse (O08992, Q99JZ0). Other species not tested yet.
Specificity	Detects human protein with higher sensitivity. Recognizes syntenin 1 and 2. K.D. validated PubMed: <a href="https://pubmed.ncbi.nlm.nih.gov/22535526/">22535526</a>
Matching control	133-0P

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

## Background

**Syntenin** is an ubiquitously expressed PDZ domain protein that binds to the cytoplasmic tails of several cell surface proteins. It has been particularly implicated in cell-cell interactions in the brain via its interactions with proteins such as syndecans, ephrins and neurofascin.

## Selected References for 133 003

- The PDZ-adaptor protein syntenin-1 regulates HIV-1 entry.  
Gordón-Alonso M, Rocha-Perugini V, Álvarez S, Moreno-Gonzalo O, Ursa A, López-Martín S, Izquierdo-Useros N, Martínez-Picado J, Muñoz-Fernández MÁ, Yáñez-Mó M, Sánchez-Madrid F, et al.  
Molecular biology of the cell (2012) 2312: 2253-63. . **WB, ICC, IP; KD verified; tested species: human**
- Association of syntenin-1 with M-RIP polarizes Rac-1 activation during chemotaxis and immune interactions.  
Sala-Valdés M, Gordón-Alonso M, Tejera E, Ibáñez A, Cabrero JR, Ursa A, Mittelbrunn M, Lozano F, Sánchez-Madrid F, Yáñez-Mó M  
Journal of cell science (2012) 125Pt 5: 1235-46. . **WB, ICC**
- Tyrosine dephosphorylation of the syndecan-1 PDZ binding domain regulates syntenin-1 recruitment.  
Sulka B, Lortat-Jacob H, Terreux R, Letourneur F, Rousselle P  
The Journal of biological chemistry (2009) 28416: 10659-71. . **WB, ICC**
- The tandem PDZ protein Syntenin interacts with the aminoacyl tRNA synthetase complex in a lysyl-tRNA synthetase-dependent manner.  
Meerschaert K, Remue E, De Ganck A, Staes A, Boucherie C, Gevaert K, Vandekerckhove J, Kleiman L, Gettemans J  
Journal of proteome research (2008) 711: 4962-73. . **WB, IP**
- Syndecan-4/PAR-3 signaling regulates focal adhesion dynamics in mesenchymal cells.  
Valdivia A, Cárdenas A, Brenet M, Maldonado H, Kong M, Díaz J, Burridge K, Schneider P, San Martín A, García-Mata R, Quest AFG, et al.  
Cell communication and signaling : CCS (2020) 181: 129. . **WB; tested species: rat**
- Stimulated release of intraluminal vesicles from Weibel-Palade bodies.  
Streetley J, Fonseca AV, Turner J, Kiskin NI, Knipe L, Rosenthal PB, Carter T  
Blood (2019) 13325: 2707-2717. . **ICC; tested species: human**
- Proteomic peptide phage display uncovers novel interactions of the PDZ1-2 supramodule of syntenin.  
Garrido-Urbani S, Garg P, Ghossoub R, Arnold R, Lembo F, Sundell GN, Kim PM, Lopez M, Zimmermann P, Sidhu SS, Ivarsson Y, et al.  
FEBS letters (2016) 5901: 3-12. . **WB**
- NG2 regulates directional migration of oligodendrocyte precursor cells via Rho GTPases and polarity complex proteins.  
Binamé F, Sakry D, Dimou L, Jolivel V, Trotter J  
The Journal of neuroscience : the official journal of the Society for Neuroscience (2013) 3326: 10858-74. . **WB**

## Selected General References

- Syntenin-syndecan binding requires syndecan-syntyeny and the co-operation of both PDZ domains of syntenin.  
Grootjans JJ et al. J. Biol. Chem. (2000) PubMed:10770943
- A role for a PDZ protein in the early secretory pathway for the targeting of proTGF-alpha to the cell surface.  
Fernández-Larrea J et al. Mol. Cell (1999) PubMed:10230395
- Identification of syntenin as a protein of the apical early endocytic compartment in Madin-Darby canine kidney cells.  
Fialka I et al. J. Biol. Chem. (1999) PubMed:10473577
- Syntenin, a PDZ protein that binds syndecan cytoplasmic domains.  
Grootjans JJ et al. Proc. Natl. Acad. Sci. U.S.A. (1997) PubMed:9391086

Access the online factsheet including applicable protocols at <https://sysy.com/product/133003> 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.