SYSY Antibodies

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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 **reconstitution** add 50 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 : 100 up to 1 : 1000 (AP staining) **IP**: yes **ICC**: not tested yet **IHC**: not tested yet **IHC-P (FFPE)**: 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: 22535526
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-synteny 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 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.