SYSY Antibodies

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Cellubrevin (VAMP3)

Cat.No. 104 103; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin and azide were 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 : 1000 up to 1 : 5000 (AP staining) **IP**: yes **ICC**: 1 : 500 **IHC**: 1 : 500 **IHC-P (FFPE)**: 1 : 200 up to 1 : 1000 **EM**: external data (see remarks)
Immunogen	Synthetic peptide corresponding to AA 2 to 14 from rat Cellubrevin (UniProt Id: P63025)
Reactivity	Reacts with: rat (P63025), mouse (P63024), pig, human (Q15836). No signal: zebrafish. Other species not tested yet.
Specificity	K.O. validated PubMed: 25864578
Matching control	104-1P
Remarks	**EM**: This antibody has been successfully applied and published for this method by customers (see application-specific references).

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

Background

Cellubrevin/VAMP3 is the non-neuronal isoform of the synaptobrevin/VAMP family which belongs to the v-SNAREs. Like the neuronal isoforms Synaptobrevin1/VAMP1 and Synaptobrevin2/VAMP2 it is composed of an N-terminal cytoplasmic region and a C-terminal transmembrane domain. Cellubrevin/VAMP3 localizes to an endosomal membrane pool, where it constitutes an essential component of the membrane fusion machinery. Like the synaptobrevins, cellubrevin is a substrate for the tetanus toxin.

Selected References for 104 103

Transport of the major myelin proteolipid protein is directed by VAMP3 and VAMP7.
Feldmann A, Amphornrat J, Schönherr M, Winterstein C, Möbius W, Ruhwedel T, Danglot L, Nave KA, Galli T, Bruns D, Trotter J, et al.
The Journal of neuroscience : the official journal of the Society for Neuroscience (2011) 3115: 5659-72. . **WB, ICC, EM**

Sunday driver interacts with two distinct classes of axonal organelles.
Abe N, Almenar-Queralt A, Lillo C, Shen Z, Lozach J, Briggs SP, Williams DS, Goldstein LS, Cavalli V
The Journal of biological chemistry (2009) 28450: 34628-39. . **WB, IP, IHC**

VAMPs sensitive to tetanus toxin are required for cortical granule exocytosis in mouse oocytes.
de Paola M, Garrido F, Zanetti MN, Michaut MA
Experimental cell research (2021) 4051: 112629. . **WB, ICC; tested species: mouse**

Tracking Calcium Dynamics and Immune Surveillance at the Choroid Plexus Blood-Cerebrospinal Fluid Interface.
Shipley FB, Dani N, Xu H, Deister C, Cui J, Head JP, Sadegh C, Fame RM, Shannon ML, Flores VI, Kishkovich T, et al.
Neuron (2020) 1084: 623-639.e10. . **WB, IHC; tested species: mouse**

Synaptotagmin-11 inhibits cytokine secretion and phagocytosis in microglia.
Du C, Wang Y, Zhang F, Yan S, Guan Y, Gong X, Zhang T, Cui X, Wang X, Zhang CX
Glia (2017) 6510: 1656-1667. . **WB, ICC; tested species: mouse**

Annexin A6 and Late Endosomal Cholesterol Modulate Integrin Recycling and Cell Migration.
García-Melero A, Reverter M, Hoque M, Meneses-Salas E, Koese M, Conway JR, Johnsen CH, Alvarez-Guaita A, Morales-Paytuvi F, Elmaghrabi YA, Pol A, et al.
The Journal of biological chemistry (2016) 2913: 1320-35. . **WB, ICC**

Vesicular transport system in myotubes: ultrastructural study and signposting with vesicle-associated membrane proteins.
Tajika Y, Takahashi M, Khairani AF, Ueno H, Murakami T, Yorifuji H
Histochemistry and cell biology (2014) 1414: 441-54. . **WB, ICC; tested species: mouse**

Vesicle-associated membrane protein-2 (VAMP2) mediates cAMP-stimulated renin release in mouse juxtaglomerular cells.
Mendez M, Gross KW, Glenn ST, Garvin JL, Carretero OA
The Journal of biological chemistry (2011) 28632: 28608-18. . **WB, ICC**

How pig sperm prepares to fertilize: stable acrosome docking to the plasma membrane.
Tsai PS, Garcia-Gil N, van Haeften T, Gadella BM
PloS one (2010) 56: e11204. . **WB, IP; tested species: pig**

Vesicle-associated membrane protein-8/endobrevin negatively regulates phagocytosis of bacteria in dendritic cells.
Ho YH, Cai DT, Wang CC, Huang D, Wong SH
Journal of immunology (Baltimore, Md. : 1950) (2008) 1805: 3148-57. . **WB, ICC**

VAMP3 vesicles support host protein recruitment and Plasmodium liver stage development.
Chirgwin ME, Gan C, Godinez-Macias KP, Choe K, Shiau JC, Calla J, Kyle DE, Winzeler EA, Derbyshire ER
mBio (2026) : e0143026. . **ICC; tested species: human**

Picalm coordinates clathrin-mediated endocytosis and actin remodeling during myogenesis.
Gaugel J, Haacke N, Kuropka B, Jähnert M, Rominger J, Jonas W, Speckmann T, Rausch N, Kleinert M, Weigert C, Garcia-Carrizo F, et al.
Molecular metabolism (2026) 107: 102351. . **ICC; tested species: mouse**

Access the online factsheet including applicable protocols at https://sysy.com/product/104103 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.