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**: 1 : 200 up to 1 : 1000 **EM**: external data
Immunogen	Synthetic peptide corresponding to AA 2 to 14 from rat Cellubrevin (UniProt Id: P63025)
Reactivity	Reacts with: rat (P63025), mouse (P63024), pig, human. No signal: zebrafish. Other species not tested yet.
Specificity	K.O. validated PubMed: 25864578
Matching control	104-1P

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**

Oligodendrocyte-lineage cell exocytosis and L-type prostaglandin D synthase promote oligodendrocyte development and myelination.
Pan L, Trimarco A, Zhang AJ, Fujimori K, Urade Y, Sun LO, Taveggia C, Zhang Y
eLife (2023) 12: . . **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 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.