SYSY Antibodies

Rudolf-Wissell-Str. 28a
37079 Göttingen, Germany
Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

Bassoon

Cat.No. 141 016; Polyclonal chicken antibody, 200 µl antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl antibody, lyophilized. For **reconstitution** add 200 µl H_2O, 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	**WB**: not recommended **IP**: not tested yet **ICC**: 1 : 500 **IHC**: 1 : 500 **IHC-P**: 1 : 500
Immunogen	Recombinant protein corresponding to residues corresponding to central region rat Bassoon. (UniProt Id: O88778)
Reactivity	Reacts with: rat (O88778), mouse (O88737). Other species not tested yet.
Specificity	Specific for bassoon.

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

Background

Bassoon is a large protein which consists of an N-terminal Zn^{2+} finger and several piccolo-bassoon homology domains (PBH-domains). It is generally found together with piccolo, a related huge multi-domain protein of the CAZ (cytoskeletal matrix assembled at active zones).
Bassoon was suggested to be a scaffolding element of the presynapse but deletion experiments in mice have shown that bassoon is also involved in synaptic vesicle cycling. Probably bassoon interacts with other protein factors via its Zn^{2+} domain but the potential partners have not been determined yet.

Selected References for 141 016

A genetic variant of the Wnt receptor LRP6 accelerates synapse degeneration during aging and in Alzheimer's disease.
Jones ME, Büchler J, Dufor T, Palomer E, Teo S, Martin-Flores N, Boroviak K, Metzakopian E, Gibb A, Salinas PC
Science advances (2023) 92: eabo7421. . **ICC, IHC; tested species: mouse**

High-content image-based pooled screens reveal regulators of synaptogenesis.
Le A, Biederer T, Blainey PC
Cell reports (2025) 447: 115889. . **ICC; tested species: rat**

Downregulation of Dickkopf-3, a Wnt antagonist elevated in Alzheimer's disease, restores synapse integrity and memory in a disease mouse model.
Martin Flores N, Podpolny M, McLeod F, Workman I, Crawford K, Ivanov D, Leonenko G, Escott-Price V, Salinas PC
eLife (2024) 12: . . **IHC; tested species: mouse**

Development and Optimization of a Multilayer Rat Purkinje Neuron Culture.
Uggerud IM, Kråkenes T, Hirai H, Vedeler CA, Schubert M
Cerebellum (London, England) (2023) : . . **ICC; tested species: rat**

Mechanisms of simultaneous linear and nonlinear computations at the mammalian cone photoreceptor synapse.
Grabner CP, Futagi D, Shi J, Bindokas V, Kitano K, Schwartz EA, DeVries SH
Nature communications (2023) 141: 3486. . **IHC**

Evolving prion-like tau conformers differentially alter postsynaptic proteins in neurons inoculated with distinct isolates of Alzheimer's disease tau.
Hromadkova L, Kim C, Haldiman T, Peng L, Zhu X, Cohen M, de Silva R, Safar JG
Cell & bioscience (2023) 131: 174. . **ICC; tested species: mouse**

Piccolino is required for ribbon architecture at cochlear inner hair cell synapses and for hearing.
Michanski S, Kapoor R, Steyer AM, Möbius W, Früholz I, Ackermann F, Gültas M, Garner CC, Hamra FK, Neef J, Strenzke N, et al.
EMBO reports (2023) 249: e56702. . **IHC; tested species: rat**

Interaction between Teneurin-2 and microtubules via EB proteins provides a platform for GABAA receptor exocytosis.
Ichinose S, Susuki Y, Hosoi N, Kaneko R, Ebihara M, Hirai H, Iwasaki H
eLife (2023) 12: . . **ICC; tested species: mouse**

S-SCAM is essential for synapse formation.
Wittenmayer N, Petkova-Tuffy A, Borgmeyer M, Lee C, Becker J, Böning A, Kügler S, Rhee J, Viotti JS, Dresbach T
Frontiers in cellular neuroscience (2023) 17: 1182493. . **ICC; tested species: rat**

Visualizing cellular and tissue ultrastructure using Ten-fold Robust Expansion Microscopy (TREx).
Damstra HGJ, Mohar B, Eddison M, Akhmanova A, Kapitein LC, Tillberg PW
eLife (2022) 11: . . **IHC; tested species: mouse**

Ribosomal RACK1 Regulates the Dendritic Arborization by Repressing FMRP Activity.
Romano N, Di Giacomo B, Nobile V, Borreca A, Willems D, Tilesi F, Catalani E, Agrawal M, Welshhans K, Ricciardi S, Cervia D, et al.
International journal of molecular sciences (2022) 2319: . . **ICC; tested species: mouse**

Access the online factsheet including applicable protocols at https://sysy.com/product/141016 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.