SYSY Antibodies

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Ribeye A-domain

Cat.No. 192 104; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For **reconstitution** add 100 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 tested yet **IP**: not tested yet **ICC**: not tested yet **IHC**: 1 : 1000 up to 1 : 10000 (see remarks) **IHC-P (FFPE)**: 1 : 500 up to 1 : 1000
Immunogen	Recombinant protein corresponding to AA 95 to 207 from rat Ribeye (UniProt Id: Q9EQH5-2)
Reactivity	Reacts with: rat (Q9EQH5-2), mouse (P56546-2). Other species not tested yet.
Specificity	This antibody recognizes only ribeye and not CtBP 2.
Remarks	**IHC**: For optimal results in retina tissue, follow the retina protocol. For optimal results in cochlea tissue, follow the cochlea protocol according to Klotz et al. 2019.

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

Background

The photoreceptor ribbon synapse is a unique type of synapse specialized for the tonic release of neurotransmitter in the dark. **Ribeye** is a self-aggregating protein and is one of the major scaffolding components of the ribbon on which the neurotransmitter containing vesicles are tethered. The protein consists of a unique A-domain and a B-domain. With the exception of the first 20 amino acids the B-domain is identical to the transcriptional corepressor CtBP 2. Both proteins originate from the same gene.

Selected References for 192 104

Establishing synthetic ribbon-type active zones in a heterologous expression system.
Kapoor R, Do TT, Schwenzer N, Petrovic A, Dresbach T, Lehnart SE, Fernández-Busnadiego R, Moser T
eLife (2026) 13: . . **ICC; tested species: human**

Localization of group II and III metabotropic glutamate receptors at pre- and postsynaptic sites of inner hair cell ribbon synapses.
Klotz L, Wendler O, Frischknecht R, Shigemoto R, Schulze H, Enz R
FASEB journal : official publication of the Federation of American Societies for Experimental Biology (2019) : fj201901543R. .
IHC; tested species: mouse

The missing link: Piccolino is essential for tethering synaptic vesicles to rod photoreceptor ribbons.
Gierke K, Gadomska M, Breuer J, Bahr JN, Müller TM, Ehnis H, Zobel S, Mejia Villagran N, Kirsch SA, Skrzypek A, Frischknecht R, et al.
The Journal of cell biology (2026) 2259: . . **IHC; tested species: mouse**

Munc18-1 is crucial for photoreceptor function, survival and regulation of syntaxin-3 localization and expression.
Huang M, Chow CH, Noworolski R, Charish J, Indrawinata K, Harada H, Wallace VA, Monnier PP, Sugita S
Scientific reports (2026) 16: . . **IHC; tested species: mouse**

The Size and Localization of Ribeye and GluR2 in the Auditory Inner Hair Cell Synapse of C57BL/6 Mice Are Affected by Short-Pulse Corticosterone in a Sex-Dependent Manner.
Domarecka E, Olze H, Szczepek AJ
Brain sciences (2025) 155: . . **IHC; tested species: mouse**

Histamine H3 Receptor Antagonists Influence the Directional Growth of Type II Spiral Ganglion Neurites Within the Developing Cochlea of C57BL/6 Mice.
Kong L, Olze H, Szczepek AJ
Neurochemical research (2025) 504: 266. . **IHC; tested species: mouse**

Gating of hair cell Ca2+ channels governs the activity of cochlear neurons.
Karagulyan N, Thirumalai A, Michanski S, Qi Y, Fang Q, Wang H, Ortner NJ, Striessnig J, Strenzke N, Wichmann C, Hua Y, et al.
Science advances (2025) 1125: eadu7898. . **IHC; tested species: mouse**

Homologous amacrine to amacrine gap junction coupling serves communication between neighbour OFF alpha retinal ganglion cells.
Szarka G, Futácsi A, Kovács-Öller T, Völgyi B
The Journal of physiology (2025) : . . **IHC; tested species: mouse**

Charting the nanotopography of inner hair cell synapses using MINFLUX nanoscopy.
Kapoor R, Kim H, Garlick E, Lima MADRBF, Esch K, Ruhwedel T, Möbius W, Wolf F, Moser T
Science advances (2025) 1145: eady4344. . **IHC; tested species: mouse**

Hyperacusis in the Adult Fmr1-KO Mouse Model of Fragile X Syndrome: The Therapeutic Relevance of Cochlear Alterations and BKCa Channels.
Ferraguto C, Bouleau Y, Peineau T, Dulon D, Pietropaolo S
International journal of molecular sciences (2023) 2414: . . **IHC; tested species: mouse**

Access the online factsheet including applicable protocols at https://sysy.com/product/192104 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.