

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 ₂ O, 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: 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, mild fixation (immersion fixation with 4% PFA for 15 min) according to Gierke et al. 2023 or Klotz et al. 2019 is recommended.

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

- 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
- 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**
- The Role of Sphingosine-1-Phosphate Receptor 2 in Mouse Retina Light Responses.
Shrestha AP, Stiles M, Gramberg RC, Boff JM, Madireddy S, Mondal K, Rajmanna R, Porter H, Sherry DM, Proia RL, Vaithianathan T, et al.
Biomolecules (2023) 1312: . . **IHC; tested species: mouse**
- Glutamate transporters EAAT2 and EAAT5 differentially shape synaptic transmission from rod bipolar cell terminals.
Tang FS, Yuan HL, Liu JB, Zhang G, Chen SY, Ke JB
eNeuro (2022) : . . **IHC; tested species: mouse**
- The SNARE protein SNAP-25 is required for normal exocytosis at auditory hair cell ribbon synapses.
Calvet C, Peineau T, Benamer N, Cornille M, Lelli A, Plion B, Lahlou G, Fanchette J, Nouaille S, Boutet de Monvel J, Estivalet A, et al.
iScience (2022) 2512: 105628. . **IHC; tested species: mouse**
- Activation of Apoptosis in a β B1-CTGF Transgenic Mouse Model.
Weiss M, Reinehr S, Mueller-Buehl AM, Doerner JD, Fuchshofer R, Stute G, Dick HB, Joachim SC
International journal of molecular sciences (2021) 224: . . **IHC; tested species: mouse**
- Genetic disruption of bassoon in two mutant mouse lines causes divergent retinal phenotypes.
Ryl M, Urbasik A, Gierke K, Babai N, Joachimsthaler A, Feigenspan A, Frischknecht R, Stallwitz N, Fejtová A, Kremers J, von Wittgenstein J, et al.
FASEB journal : official publication of the Federation of American Societies for Experimental Biology (2021) 355: e21520. . **IHC; tested species: mouse**

Selected General References

- Mechanisms directing the nuclear localization of the CtBP family proteins.
Vergier A et al. Mol. Cell. Biol. (2006) PubMed:16782877
- Few CaV1.3 channels regulate the exocytosis of a synaptic vesicle at the hair cell ribbon synapse.
Brandt A et al. J. Neurosci. (2005) PubMed:16354915
- Molecular dissection of the photoreceptor ribbon synapse: physical interaction of Bassoon and RIBEYE is essential for the assembly of the ribbon complex.
tom Dieck S et al. J. Cell Biol. (2005) PubMed:15728193

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 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.