SYSY Antibodies

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CtBP2

Cat.No. 193 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin was 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 (AP staining) **IP**: not tested yet **ICC**: not tested yet **IHC**: 1 : 10000 (see remarks) **IHC-P (FFPE)**: not tested yet **EM**: external data (see remarks)
Immunogen	Synthetic peptide corresponding to AA 974 to 988 from rat Ribeye (UniProt Id: Q9EQH5-2)
Reactivity	Reacts with: human (P56545), rat (Q9EQH5), mouse (P56546), monkey, cow. Other species not tested yet.
Specificity	This antibody recognizes CtBP 2 and ribeye (cat. no. 192 003).
Remarks	The immunogen is identical to that of anti-ribeye (cat. no. 192 003). **IHC**: For optimal results in retina tissue, follow the retina protocol. Validation in other tissue is pending. **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

CtBP 2 and its close relative CtBP 1 interact with various transcription factors through a PLDLSL motif enhancing transcriptional repression. With the exception of the first 20 amino acids CtBP 2 is identical to the B-domain of ribeye, a scaffolding protein of the ribbon synapse. Both proteins originate from the same gene.

Selected References for 193 003

Differential spatial expression and subcellular localization of CtBP family members in rodent brain.
Hübler D, Rankovic M, Richter K, Lazarevic V, Altrock WD, Fischer KD, Gundelfinger ED, Fejtova A
PloS one (2012) 76: e39710. . **WB, ICC, EM; tested species: mouse,rat**

The rod pathway of the microbat retina has bistratified rod bipolar cells and tristratified AII amacrine cells.
Müller B, Butz E, Peichl L, Haverkamp S
The Journal of neuroscience : the official journal of the Society for Neuroscience (2013) 333: 1014-23. . **IHC**

Immunohistochemical characterization of bipolar cells in four distantly related avian species.
Balaji V, Haverkamp S, Seth PK, Günther A, Mendoza E, Schmidt J, Herrmann M, Pfeiffer LL, Němec P, Scharff C, Mouritsen H, et al.
The Journal of comparative neurology (2023) 5314: 561-581. . **IHC**

Lycium Barbarum Polysaccharides Protect Retina in rd1 Mice During Photoreceptor Degeneration.
Liu F, Zhang J, Xiang Z, Xu D, So KF, Vardi N, Xu Y
Investigative ophthalmology & visual science (2018) 591: 597-611. . **IHC; tested species: mouse**

Dendritic stratification differs among retinal OFF bipolar cell types in the absence of rod photoreceptors.
Puller C, Arbogast P, Keeley PW, Reese BE, Haverkamp S
PloS one (2017) 123: e0173455. . **IHC; tested species: mouse**

Cell type-specific bipolar cell input to ganglion cells in the mouse retina.
Neumann S, Hüser L, Ondreka K, Auler N, Haverkamp S
Neuroscience (2016) 316: 420-32. . **IHC**

Morphological and physiological analysis of type-5 and other bipolar cells in the Mouse Retina.
Hellmer CB, Zhou Y, Fyk-Kolodziej B, Hu Z, Ichinose T
Neuroscience (2016) 315: 246-58. . **IHC**

Frizzled3 Shapes the Development of Retinal Rod Bipolar Cells.
Shen N, Qu Y, Yu Y, So KF, Goffinet AM, Vardi N, Xu Y, Zhou L
Investigative ophthalmology & visual science (2016) 576: 2788-96. . **IHC; tested species: mouse**

Morphology and connectivity of the small bistratified A8 amacrine cell in the mouse retina.
Lee SC, Meyer A, Schubert T, Hüser L, Dedek K, Haverkamp S
The Journal of comparative neurology (2015) 52310: 1529-47. . **IHC**

Cone bipolar cells in the retina of the microbat Carollia perspicillata.
Butz E, Peichl L, Müller B
The Journal of comparative neurology (2015) 5236: 963-81. . **IHC**

Localization of diacylglycerol lipase alpha and monoacylglycerol lipase during postnatal development of the rat retina.
Cécyre B, Monette M, Beudjekian L, Casanova C, Bouchard JF
Frontiers in neuroanatomy (2014) 8: 150. . **IHC; tested species: rat**

Characterization of small-field bistratified amacrine cells in macaque retina labeled by antibodies against synaptotagmin-2.
Neumann S, Haverkamp S
The Journal of comparative neurology (2013) 5213: 709-24. . **IHC; tested species: monkey**

Detailed functional and structural characterization of a macular lesion in a rhesus macaque.
Dominik Fischer M, Zobor D, Keliris GA, Shao Y, Seeliger MW, Haverkamp S, Jägle H, Logothetis NK, Smirnakis SM
Documenta ophthalmologica. Advances in ophthalmology (2012) 1253: 179-94. . **IHC**

Access the online factsheet including applicable protocols at https://sysy.com/product/193003 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.