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 **IHC-P**: not tested yet **EM**: external data
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). K.D. validated PubMed: 28855251
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 according to Gierke et al. 2023.

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**

PICK1 regulates AMPA receptor endocytosis via direct interactions with AP2 α-appendage and dynamin.
Fiuza M, Rostosky CM, Parkinson GT, Bygrave AM, Halemani N, Baptista M, Milosevic I, Hanley JG
The Journal of cell biology (2017) 21610: 3323-3338. . **WB; KD verified; tested species: rat**

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**

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 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.