

NeuN

Cat.No. 266 004; 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 used. For detailed information, see back of the data sheet.
Applications	WB: not tested yet IP: not tested yet ICC: 1 : 500 IHC: 1 : 100 up to 1 : 500 IHC-P/FFPE: 1 : 200
Immunogen	Recombinant protein corresponding to AA 1 to 97 from mouse NeuN (UniProt Id: Q8BIF2)
Reactivity	Reacts with: rat (D4A2H6), mouse (Q8BIF2), human (A6NFN3). Other species not tested yet.
Specificity	Specific for NeuN.

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

Access the online factsheet including applicable protocols at <https://susy.com/product/266004> or scan the QR-code.



Background

NeuN (Neuronal Nuclei) is a neuron-specific nuclear protein that has recently been identified as Fox-3/Rbfox3, a member of the Fox-1 family of transcription factors.

NeuN is only expressed in the nuclei of differentiated neurons. In some neurons - Purkinje cells, sympathetic ganglion cells, INL retinal cells, Cajal-Retzius cells, inferior olivary and dentate nucleus neurons - NeuN is not detectable.

Selected References for 266 004

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Griso O, Puccio H

Methods in molecular biology (Clifton, N.J.) (2020) 2056: 241-253. . **ICC; tested species: mouse**

Fibroblast Growth Factor 14 Modulates the Neurogenesis of Granule Neurons in the Adult Dentate Gyrus.
Alshammari MA, Alshammari TK, Nenov MN, Scala F, Laezza F
Molecular neurobiology (2016) 5310: 7254-7270. . **IHC; tested species: mouse**

Rab6A as a Pan-Astrocytic Marker in Mouse and Human Brain, and Comparison with Other Glial Markers (GFAP, GS, Aldh1L1, SOX9).

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Glial cell line-derived neurotrophic factor increases matrix metalloproteinase 9 and 14 expression in microglia and promotes microglia-mediated glioma progression.

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A novel tau-based rhesus monkey model of Alzheimer's pathogenesis.

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Alzheimer's & dementia : the journal of the Alzheimer's Association (2021) . . **IHC; tested species: monkey**

Rab27a Contributes to the Processing of Inflammatory Pain in Mice.

Gross T, Wack G, Syhr KMJ, Tolmachova T, Seabra MC, Geisslinger G, Niederberger E, Schmidtke A, Kallenborn-Gerhardt W
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Spatial Expression Pattern of the Major Ca²⁺-Buffer Proteins in Mouse Retinal Ganglion Cells.

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Quantification of Huntington's Disease Related Markers in the R6/2 Mouse Model.

Etxeberría-Rekalde E, Alzola-Aldamizetxeberría S, Flunkert S, Hable I, Daurer M, Neddens J, Hutter-Paier B
Frontiers in molecular neuroscience (2020) 13: 617229. . **IHC; tested species: mouse**

On the objectivity, reliability, and validity of deep learning enabled bioimage analyses.

Segebarth D, Griebel M, Stein N, von Collenberg CR, Martin C, Fiedler D, Comeras LB, Sah A, Schoeffler V, Lüffe T, Dürr A, et al.
eLife (2020) 9: . . **IHC; tested species: mouse**

CNS Transduction Benefits of AAV-PHP.eB over AAV9 Are Dependent on Administration Route and Mouse Strain.

Mathiesen SN, Lock JL, Schoderboeck L, Abraham WC, Hughes SM
Molecular therapy. Methods & clinical development (2020) 19: 447-458. . **IHC; tested species: mouse**

Foreign body responses in mouse central nervous system mimic natural wound responses and alter biomaterial functions.

O'Shea TM, Wollenberg AL, Kim JH, Ao Y, Deming TJ, Sofroniew MV
Nature communications (2020) 111: 6203. . **IHC; tested species: mouse**

A comprehensive library of human transcription factors for cell fate engineering.

Ng AHM, Khoshakhlagh P, Rojo Arias JE, Pasquini G, Wang K, Swiersy A, Shipman SL, Appleton E, Kiaee K, Kohman RE, Vernet A, et al.
Nature biotechnology (2020) . . **ICC; tested species: human**

Spatial Multiplexing of Fluorescent Reporters for Imaging Signaling Network Dynamics.

Linghu C, Johnson SL, Valdes PA, Shemesh OA, Park WM, Park D, Piatkevich KD, Wassie AT, Liu Y, An B, Barnes SA, et al.
Cell (2020) . . **IHC; tested species: mouse**

Spatial Transcriptomics and In Situ Sequencing to Study Alzheimer's Disease.

Chen WT, Lu A, Craessaerts K, Pavie B, Sala Frigerio C, Corthout N, Qian X, Laláková J, Kühnemund M, Voytyuk I, Wolfs L, et al.
Cell (2020) . . **IHC; tested species: mouse**

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 10 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 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.