

Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker

Anti-NeuN antibody [EPR12763] - Neuronal Marker - Alexa Fluor® 647 conjugated (ab190565) is a rabbit recombinant monoclonal antibody detecting NeuN in IHC-P, IHC-Fr, ICC/IF. Suitable for Human, Mouse, Rat. - Biophysical QC for unrivalled batch-batch consistency - Over 30 publications

Recombinant

RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12763
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/50
Notes	ab199093 - Rabbit monoclonal IgG (Alexa Fluor [®] 647), is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	1/50
Notes	ab199093 - Rabbit monoclonal IgG (Alexa Fluor [®] 647), is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	1/50
Notes	ab199093 - Rabbit monoclonal IgG (Alexa Fluor [®] 647), is suitable for use as an isotype control with this antibody.

ICC/IF

Tested

Species	Rat
Dilution info	1/50
Notes	-

Species	Human
Dilution info	1/50
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	-
Notes	-

Species	Rat
Dilution info	1/1000
Notes	Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

[See full target information NeuN](#) 

Function	Pre-mRNA alternative splicing regulator. Regulates alternative splicing of RBFOX2 to enhance the production of mRNA species that are targeted for nonsense-mediated decay (NMD).
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Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

Product Specifications

Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in ICC/IF, IHC-Fr, IHC-P in mouse, rat and human samples.

Flourescent conjugated antibodies are ideal tools for multiplex IHC and flow cytometry experiments.

Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565) specifically detects NeuN (UniProt ID: A6NFN3; Molecular weight: 34kDa) and is sold in 100 uL selling sizes.

Quality and Validation

Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565) has been cited over 32 times in peer reviewed journals and is trusted by the scientific community.

Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565) has 32 independent reviews from customers.

Related Products

Conjugation-ready, carrier free format available for antibody clone (EPR12763) - ab209898.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	NeuN also known as Fox-3 or Rbfox3 serves as a vital neuronal marker and has a molecular weight of about 46-50 kDa. This nuclear protein is commonly found in neuronal cells in the central nervous system but it does not appear in glial cells. Researchers use NeuN staining as an effective tool to identify neurons in various brain regions due to its reliable expression pattern in mature neurons. The presence of NeuN can be detected using methods such as NeuN IHC (immunohistochemistry) and NeuN Western blot aiding in cellular and tissue analysis.
Biological function summary	NeuN plays an essential role in the regulation of RNA-binding influencing the splicing and stability of transcripts. It forms part of the complex network responsible for managing neuron-specific gene expression. By interacting with other RNA-binding proteins NeuN contributes to the fine-tuning needed for proper neuronal development and function. As a result NeuN helps maintain the health and activity of nerve cells allowing them to perform complex neurological tasks.
Pathways	NeuN has a significant role in neuronal differentiation and plasticity pathways. NeuN coordinates with elements of the Notch signaling pathway which is important for guiding cell fate decisions in the nervous system. It also interacts with related proteins like Fox proteins involved in splicing regulation. These pathways ensure neurons develop differentiate and function correctly within the nervous system's precise architecture.
Associated diseases and disorders	Disruptions in NeuN expression link closely to neurodegenerative diseases such as Parkinson's disease and Amyotrophic lateral sclerosis (ALS). Abnormal NeuN expression correlates with neuron loss and dysfunction in these conditions with connectivity to other affected proteins like alpha-synuclein in Parkinson's disease. In ALS abnormal NeuN-staining patterns indicate neuronal cell death serving as a potential marker for disease progression. Studying these connections improves our understanding of disease mechanisms and aids in the development of targeted therapies.

Product promise

Tested
We have tested this species and application combination and it works. It is covered by our product promise.

Expected
We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

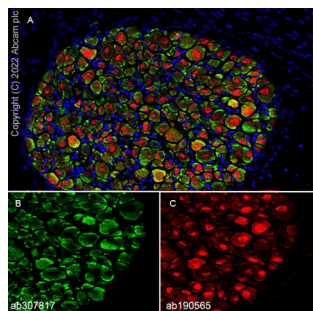
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

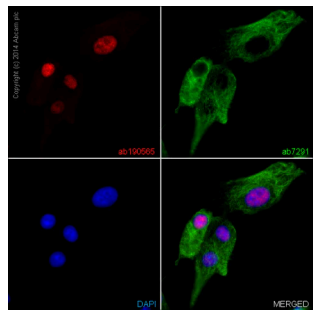
Full details and terms and conditions can be found here:
Terms & Conditions.

41 product images



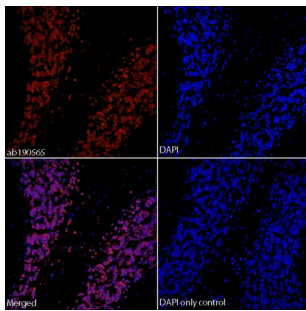
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat dorsal root ganglia (fresh) tissue labeling Nav1.8/SCN10A with [ab307817](#) at 1/50 dilution (10.64 ug/ml) followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 ug/mL) (Green). Panel A: merged staining of anti-Nav1.8/SCN10A ([ab307817](#), green) and anti-NeuN (ab190565, red) on rat dorsal root ganglia. Panel B: anti-Nav1.8/SCN10A stained on rat dorsal root ganglia. Panel C: anti-NeuN stained in neurons of rat dorsal root ganglia. The section was incubated in two rounds of staining: in the order of [ab307817](#) and ab190565 for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NeuN antibody ab190565 staining NeuN in U87-MG cells. The cells were fixed with 100% methanol (5min) and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab190565 at 1/50 dilution (shown in red) and [ab7291](#) (Mouse monoclonal [DM1A] to alpha Tubulin) at 1µg/ml overnight at +4°C, followed by a further incubation at room temperature for 1h with an Alexa Fluor® 488 Goat anti-Mouse secondary ([ab150117](#)) at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI.



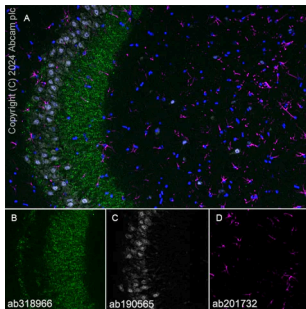
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

IHC image of ab190565 staining in formalin fixed paraffin embedded tissue section of normal human cerebellum.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6) in a Dako Pascal pressure cooker using the standard factory-set regime. Non-specific protein-protein interactions were then blocked using in TBS containing 0.025% (v/v) Triton X-100, 0.3M (w/v) glycine and 3% (w/v) BSA for 1h at room temperature. The section was then incubated with ab190565 (1/50) in TBS containing 0.025% (v/v) Triton X-100 and 3% (w/v) BSA overnight at +4°C. The section was then counterstained and mounted with SlowFade® Gold Antifade Mountant with DAPI.

The DAPI only control (no antibody) inset shows no autofluorescence, demonstrating that any Alexa Fluor® 647 signal is derived directly from bound ab190565. The separate images of ab190565 and DAPI alone, combined with the merged version of both signals, shows predominant co-localisation of the Alexa Fluor® 647 signal in the nuclei of the cerebellar granule layer.

For other IHC staining systems (automated and non-automated), customers should optimize variable parameters such as antigen retrieval conditions, antibody concentrations and incubation times.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat hippocampus (fresh frozen) tissue labeling ProDynorphin with ab318966 at 1/50 (10.06 ug/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

Panel A: merged staining of anti-ProDynorphin (ab318966, green), anti-NeuN (ab190565, grey) and anti-GFAP (ab201732, magenta) on rat hippocampus.

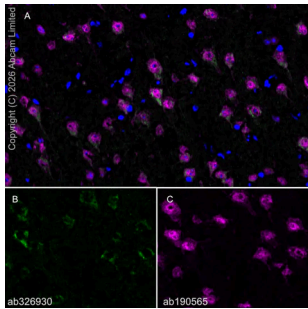
Panel B: anti-ProDynorphin stained on rat hippocampus.

Panel C: anti-NeuN stained in neurons of rat hippocampus.

Panel D: anti-GFAP stained in astrocytes of rat hippocampus.

The section was incubated in two rounds of staining: in the order of ab318966 and ab190565, ab201732 for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.



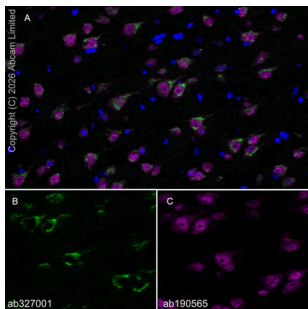
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (fresh frozen) tissue labeling with [ab326930](#) at 1/50 (10.2 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-CX3CL1 ([ab326930](#), green), anti-NeuN (ab190565, magenta) on mouse cerebrum. Panel B: anti-CX3CL1 stained on mouse cerebrum. Panel C: anti-NeuN stained in neurons of mouse cerebrum. The section was incubated in two rounds of staining: in the order of [ab326930](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



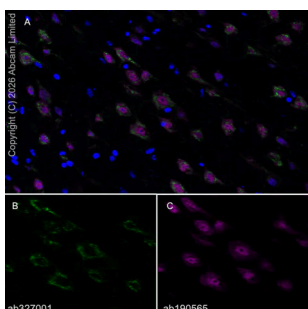
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (fresh frozen) tissue labeling with [ab327001](#) at 1/200 (2.505 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-CX3CL1 ([ab327001](#), green), anti-NeuN (ab190565, magenta) on mouse cerebrum. Panel B: anti-CX3CL1 stained on mouse cerebrum. Panel C: anti-NeuN stained in neurons of mouse cerebrum. The section was incubated in two rounds of staining: in the order of [ab327001](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



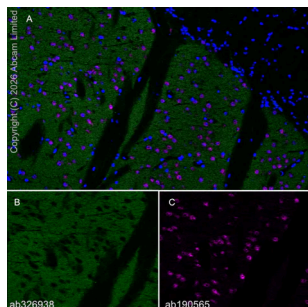
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat cerebrum (fresh frozen) tissue labeling with [ab327001](#) at 1/200 (2.505 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-CX3CL1 ([ab327001](#), green), anti-NeuN (ab190565, magenta) on rat cerebrum. Panel B: anti-CX3CL1 stained on rat cerebrum. Panel C: anti-NeuN stained in neurons of rat cerebrum. The section was incubated in two rounds of staining: in the order of [ab327001](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



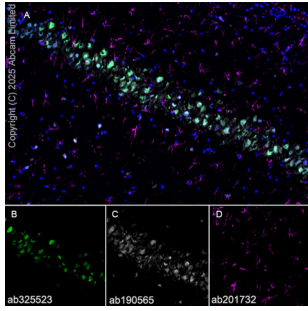
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse striatum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse striatum (fresh frozen) tissue labeling PTPRS with [ab326938](#) at 1/50 (10.44 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-PTPRS ([ab326938](#), green), anti-NeuN (ab190565, magenta) on mouse striatum. Panel B: anti-PTPRS stained on mouse striatum. Panel C: anti-NeuN stained in neurons of mouse striatum. The section was incubated in two rounds of staining: in the order of [ab326938](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat hippocampus (fresh frozen) tissue labeling Mineralocorticoid Receptor with [ab325523](#) at 1/50 (9.92 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

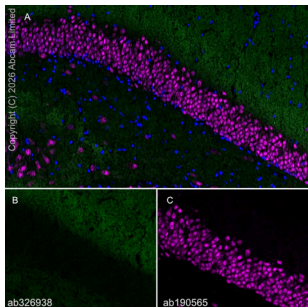
Panel A: merged staining of anti-NR3C2 ([ab325523](#), green), anti-NeuN (ab190565, white) and anti-GFAP ([ab201732](#), magenta) on rat hippocampus.

Panel B: anti-NR3C2 stained on rat hippocampus.

Panel C: anti-NeuN stained in neurons of rat hippocampus.

Panel D: anti-GFAP stained in astrocytes of rat hippocampus.

The section was incubated in two rounds of staining: in the order of [ab325523](#) and ab190565, [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



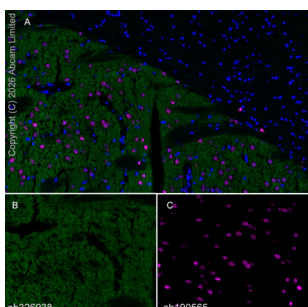
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat hippocampus (fresh frozen) tissue labeling PTPRS with [ab326938](#) at 1/50 (10.44 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-PTPRS ([ab326938](#), green), anti-NeuN (ab190565, magenta) on rat hippocampus. Panel B: anti-PTPRS stained on rat hippocampus. Panel C: anti-NeuN stained in neurons of rat hippocampus. The section was incubated in two rounds of staining: in the order of [ab326938](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

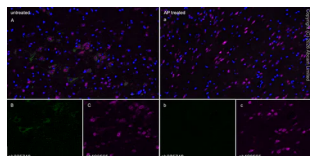
NeuN Immunohistochemistry (Frozen sections) staining of Rat striatum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat striatum (fresh frozen) tissue labeling PTPRS with [ab326938](#) at 1/50 (10.44 µg/ml) dilution

followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-PTPRS ([ab326938](#), green), anti-NeuN (ab190565, magenta) on rat striatum. Panel B: anti-PTPRS stained on rat striatum. Panel C: anti-NeuN stained in neurons of rat striatum. The section was incubated in two rounds of staining: in the order of [ab326938](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

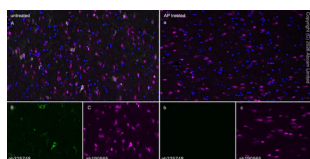
NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (perfused fixed) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (perfused fixed) tissue labeling nNOS (neuronal) with [ab325748](#) at 1/50 (10.08 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 µg/mL) dilution (Green).

Confocal image showing positive staining on mouse cerebrum and the signal decreased after phosphatase treatment at 37°C for 2 hr. Panel A a: merged staining of anti-NOS1 pS847 ([ab325748](#) green) anti-NeuN (ab190565 magenta) on mouse cerebrum. Panel B b: anti-NOS1 pS847 stained on mouse cerebrum. Panel C c: anti-NeuN stained in neurons of mouse cerebrum. The section was incubated in two rounds of staining: in the order of [ab325748](#) and ab190565 for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 µg/mL) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat cerebrum (perfused fixed) using rabbit Anti-NeuN antibody

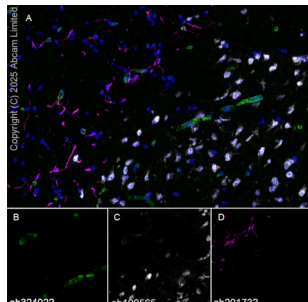
Immunohistochemical analysis of 4% PFA-fixed 0.2% Triton X-100 permeabilized frozen Rat cerebrum (perfused fixed) tissue labeling nNOS (neuronal) with [ab325748](#) at 1/50 (10.08 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 µg/mL) dilution (Green).

Confocal image showing positive staining on rat cerebrum and the signal decreased after phosphatase treatment at 37°C for 2 hr. Panel A a: merged staining of anti-NOS1 pS847 ([ab325748](#) green) anti-NeuN (ab190565 magenta) on rat cerebrum. Panel B b: anti-NOS1 pS847 stained on rat cerebrum. Panel C c: anti-NeuN stained in neurons of rat cerebrum. The section was incubated in two rounds of staining: in the order of [ab325748](#) and ab190565 for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The

immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (fresh frozen) tissue labeling Agrin with [ab324022](#) at 1/50 (9.98 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

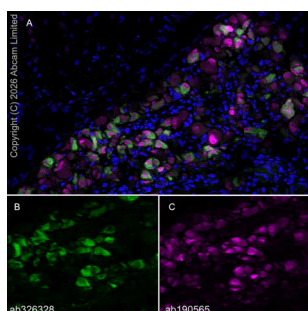
Panel A: merged staining of anti-AGRN ([ab324022](#), green), anti-NeuN ([ab190565](#), white) and anti-GFAP ([ab201732](#), magenta) on mouse cerebrum.

Panel B: anti-AGRN stained in endothelial cells on mouse cerebrum.

Panel C: anti-NeuN stained in neurons of mouse cerebrum.

Panel D: anti-GFAP stained in astrocytes of mouse cerebrum.

The section was incubated in two rounds of staining: in the order of [ab324022](#) and [ab190565](#), [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse P0 DRG (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse P0 DRG (fresh frozen) tissue labeling Nav1.8/SCN10A with [ab326328](#) at 1/50 (9.84 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green).

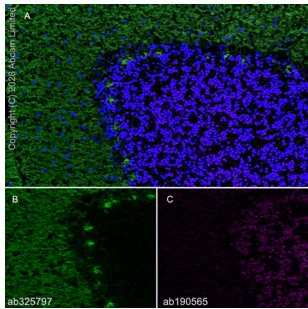
Confocal image showing positive staining on mouse P0 DRG.

Panel A: merged staining of anti-SCN10A ([ab326328](#), green), anti-NeuN ([ab190565](#), magenta) on mouse P0 DRG.

Panel B: anti-SCN10A stained on mouse P0 DRG.

Panel C: anti-NeuN stained in neurons of mouse P0 DRG.

The section was incubated in two rounds of staining: in the order of [ab326328](#) and [ab190565](#), for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



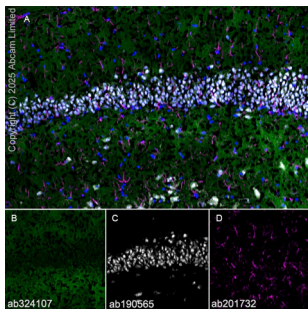
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebellum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebellum (fresh frozen) tissue labeling Cannabinoid Receptor I with [ab325797](#) at 1/200 (2.41 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-CNR1 ([ab325797](#), green), anti-NeuN ([ab190565](#), magenta) on mouse cerebellum. Panel B: anti-CNR1 stained on mouse cerebellum. Panel C: anti-NeuN stained in neurons of mouse cerebellum. The section was incubated in two rounds of staining: in the order of [ab325797](#) and [ab190565](#), for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat hippocampus (fresh frozen) tissue labeling Neogenin with [ab324107](#) at 1/50 (9.76 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

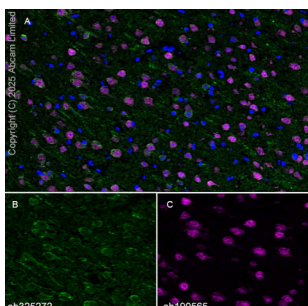
Panel A: merged staining of anti-Neogenin ([ab324107](#), green), anti-NeuN ([ab190565](#), white) and anti-GFAP ([ab201732](#), magenta) on rat hippocampus.

Panel B: anti-Neogenin stained on rat hippocampus.

Panel C: anti-NeuN stained in neurons of rat hippocampus.

Panel D: anti-GFAP stained in astrocytes of rat hippocampus.

The section was incubated in two rounds of staining: in the order of [ab324107](#) and [ab190565](#), [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

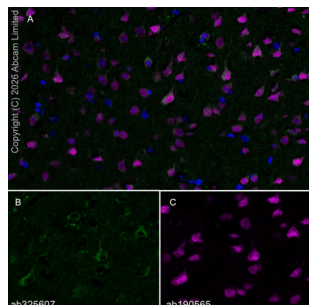
Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (fresh frozen) tissue labeling USP15 with [ab325272](#) at 1/50 (9.78 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution (Green).

Panel A: merged staining of anti-USP15 ([ab325272](#), green), anti-NeuN (ab190565, magenta) on mouse cerebrum.

Panel B: anti-USP15 stained on mouse cerebrum.

Panel C: anti-NeuN stained in neurons of mouse cerebrum.

The section was incubated in two rounds of staining: in the order of [ab325272](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

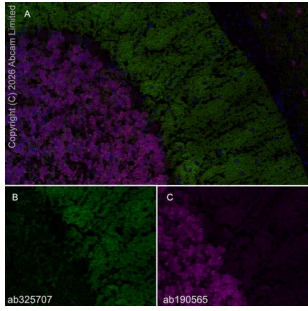
NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (perfused fixed) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (perfused fixed) tissue labeling TMEM106B with [ab325607](#) at 1/50 (10.4 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-TMEM106B ([ab325607](#), green), anti-NeuN (ab190565, magenta) on mouse cerebrum. Panel B: anti-TMEM106B stained on mouse cerebrum. Panel C: anti-NeuN stained in neurons of mouse cerebrum. The section was incubated in two rounds of staining: in the order of [ab325607](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat cerebellum (fresh frozen) using rabbit Anti-NeuN antibody

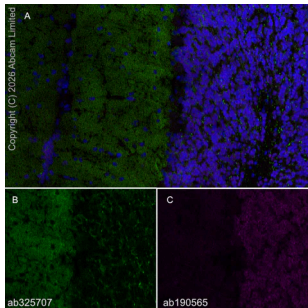
Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat cerebellum (fresh frozen) tissue labeling SCN1B with [ab325707](#) at 1/50 (10.06 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-SCN1B ([ab325707](#), green), anti-NeuN (ab190565, magenta) on rat cerebellum.

Panel B: anti-SCN1B stained on rat cerebellum.

Panel C: anti-NeuN stained in neurons of rat cerebellum.

The section was incubated in two rounds of staining: in the order of [ab325707](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebellum (fresh frozen) using rabbit Anti-NeuN antibody

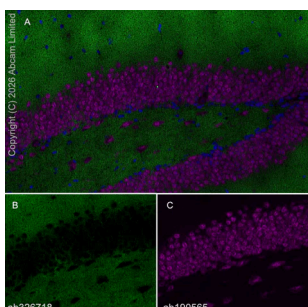
Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebellum (fresh frozen) tissue labeling SCN1B with [ab325707](#) at 1/50 (10.06 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-SCN1B ([ab325707](#), green), anti-NeuN (ab190565, magenta) on mouse cerebellum.

Panel B: anti-SCN1B stained on mouse cerebellum.

Panel C: anti-NeuN stained in neurons of mouse cerebellum.

The section was incubated in two rounds of staining: in the order of [ab325707](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

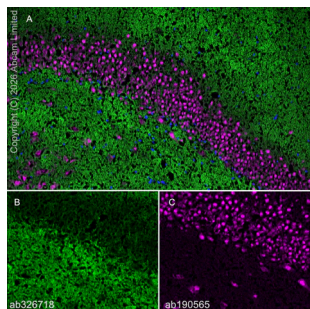
NeuN Immunohistochemistry (Frozen sections) staining of Mouse hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse hippocampus (fresh frozen) tissue labeling with [ab326718](#) at 1/200 (2.515 µg/ml) dilution followed

by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-DRD5 ([ab326718](#), green), anti-NeuN (ab190565, magenta) on mouse hippocampus. Panel B: anti-DRD5 stained on mouse hippocampus. Panel C: anti-NeuN stained in neurons of mouse hippocampus. The section was incubated in two rounds of staining: in the order of [ab326718](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



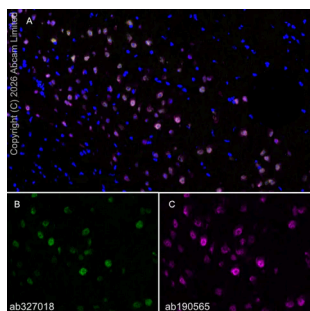
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat hippocampus (fresh frozen) tissue labeling with [ab326718](#) at 1/200 (2.515 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-DRD5 ([ab326718](#), green), anti-NeuN (ab190565, magenta) on rat hippocampus. Panel B: anti-DRD5 stained on rat hippocampus. Panel C: anti-NeuN stained in neurons of rat hippocampus. The section was incubated in two rounds of staining: in the order of [ab326718](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



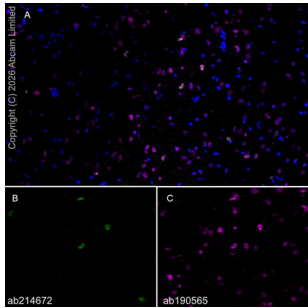
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (fresh frozen) tissue labeling Nurr1 with [ab327018](#) at 1/50 (10.02 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-NR4A2 ([ab327018](#), green), anti-NeuN (ab190565, magenta) on mouse cerebrum. Panel B: anti-NR4A2 stained on mouse cerebrum. Panel C: anti-NeuN stained in neurons of mouse cerebrum. The section was incubated in two rounds of staining: in the order of [ab327018](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat cerebrum (fresh frozen) tissue labeling c-Fos with [ab214672](#) at 1/100 dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green).

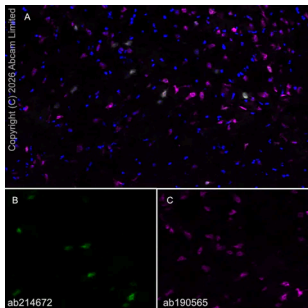
Confocal image showing positive staining on rat cerebrum tissue. Panel A: merged staining of anti-FOS ([ab214672](#), green), anti-NeuN (ab190565, magenta) on rat cerebrum.

Panel B: anti-FOS stained on rat cerebrum.

Panel C: anti-NeuN stained in neurons of rat cerebrum.

The section was incubated in two rounds of staining: in the order of [ab214672](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse cerebrum (fresh frozen) tissue labeling c-Fos with [ab214672](#) at 1/100 dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green).

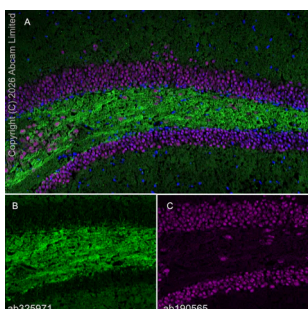
Confocal image showing positive staining on mouse cerebrum tissue. Panel A: merged staining of anti-FOS ([ab214672](#), green), anti-NeuN (ab190565, magenta) on mouse cerebrum.

Panel B: anti-FOS stained on mouse cerebrum.

Panel C: anti-NeuN stained in neurons of mouse cerebrum.

The section was incubated in two rounds of staining: in the order of [ab214672](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse hippocampus (fresh frozen) tissue labeling KCNQ2 with [ab325971](#) at 1/50 (10.26 µg/ml) dilution

followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green).

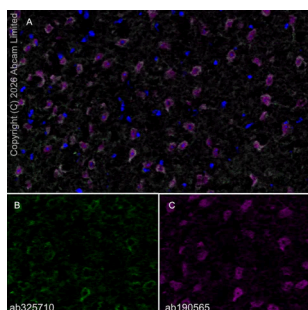
Confocal image showing positive staining on mouse hippocampus.

Panel A: merged staining of anti-KCNQ2 ([ab325971](#), green), anti-NeuN (ab190565, magenta) on mouse hippocampus.

Panel B: anti-KCNQ2 stained on mouse hippocampus.

Panel C: anti-NeuN stained in neurons of mouse hippocampus.

The section was incubated in two rounds of staining: in the order of [ab325971](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

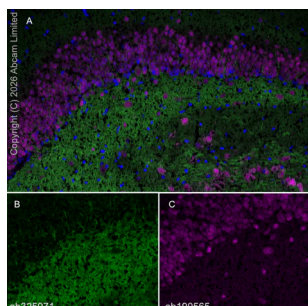
Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (fresh frozen) tissue labeling DYNC1H1 with [ab325710](#) at 1/200 (2.655 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green).

Panel A: merged staining of anti-DYNC1H1 ([ab325710](#), green), anti-NeuN (ab190565, magenta) on mouse cerebrum.

Panel B: anti-DYNC1H1 stained on mouse cerebrum.

Panel C: anti-NeuN stained in neurons of mouse cerebrum.

The section was incubated in two rounds of staining: in the order of [ab325710](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat hippocampus (fresh frozen) tissue labeling KCNQ2 with [ab325971](#) at 1/50 (10.26 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green).

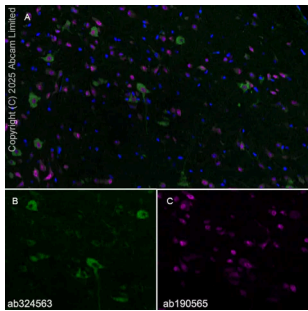
Confocal image showing positive staining on rat hippocampus.

Panel A: merged staining of anti-KCNQ2 ([ab325971](#), green), anti-NeuN (ab190565, magenta) on rat hippocampus.

Panel B: anti-KCNQ2 stained on rat hippocampus.

Panel C: anti-NeuN stained in neurons of rat hippocampus.

The section was incubated in two rounds of staining: in the order of [ab325971](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (perfused fixed) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (perfused fixed) tissue labeling NEDD4 with [ab324563](#) at 1/50 (10.28 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

Confocal image showing positive staining on mouse cerebrum.

Panel A: merged staining of anti-NEDD4 ([ab324563](#), green), anti-NeuN (ab190565, magenta) on mouse cerebrum.

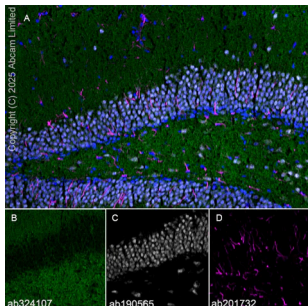
Panel B: anti-NEDD4 stained on mouse cerebrum.

Panel C: anti-NeuN stained in neurons of mouse cerebrum.

The section was incubated in two rounds of staining: in the order of [ab324563](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse hippocampus (fresh frozen) tissue labeling Neogenin with [ab324107](#) at 1/50 (9.76 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

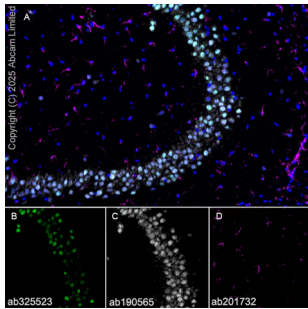
Panel A: merged staining of anti-Neogenin ([ab324107](#), green), anti-NeuN (ab190565, white) and anti-GFAP ([ab201732](#), magenta) on mouse hippocampus.

Panel B: anti-Neogenin stained on mouse hippocampus.

Panel C: anti-NeuN stained in neurons of mouse hippocampus.

Panel D: anti-GFAP stained in astrocytes of mouse hippocampus.

The section was incubated in two rounds of staining: in the order of [ab324107](#) and ab190565, [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse hippocampus (fresh frozen) tissue labeling Mineralocorticoid Receptor with [ab325523](#) at 1/50 (9.92 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

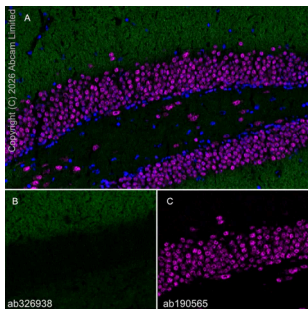
Panel A: merged staining of anti-NR3C2 ([ab325523](#), green), anti-NeuN (ab190565, white) and anti-GFAP ([ab201732](#), magenta) on mouse hippocampus.

Panel B: anti-NR3C2 stained on mouse hippocampus.

Panel C: anti-NeuN stained in neurons of mouse hippocampus.

Panel D: anti-GFAP stained in astrocytes of mouse hippocampus.

The section was incubated in two rounds of staining: in the order of [ab325523](#) and ab190565, [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



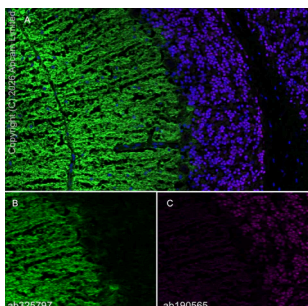
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse hippocampus (fresh frozen) tissue labeling PTPRS with [ab326938](#) at 1/50 (10.44 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-PTPRS ([ab326938](#), green), anti-NeuN (ab190565, magenta) on mouse hippocampus. Panel B: anti-PTPRS stained on mouse hippocampus. Panel C: anti-NeuN stained in neurons of mouse hippocampus. The section was incubated in two rounds of staining: in the order of [ab326938](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



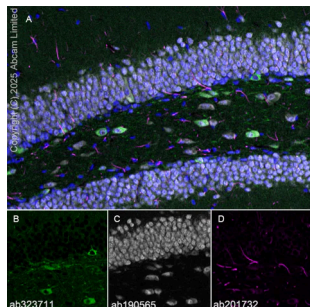
Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat cerebellum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat cerebellum (fresh frozen) tissue labeling Cannabinoid Receptor I with [ab325797](#) at 1/200 (2.41 µg/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution (Green).

Panel A: merged staining of anti-CNR1 ([ab325797](#), green), anti-NeuN (ab190565, magenta) on rat cerebellum. Panel B: anti-CNR1 stained on rat cerebellum. Panel C: anti-NeuN stained in neurons of rat cerebellum. The section was incubated in two rounds of staining: in the order of [ab325797](#) and ab190565, for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/mL dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse hippocampus (perfused fixed) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse hippocampus (perfused fixed) tissue labeling SCRNI with [ab323711](#) at 150 (9.96 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

Panel A: merged staining of anti-Secernin-1 ([ab323711](#), green), anti-NeuN (ab190565, grey) and anti-GFAP ([ab201732](#), magenta) on mouse hippocampus.

Panel B: anti-Secernin-1stained on mouse hippocampus.

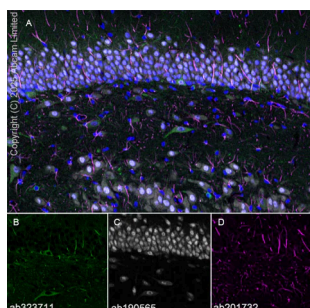
Panel C: anti-NeuN stained in neurons of mouse hippocampus.

Panel D: anti-GFAP stained in astrocytes of mouse hippocampus.

The section was incubated in two rounds of staining: in the order of [ab323711](#) and ab190565, [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat hippocampus (perfused fixed) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat hippocampus (perfused fixed) tissue labeling SCRNI with [ab323711](#) at 150 (9.96 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

Panel A: merged staining of anti-Secernin-1 ([ab323711](#), green), anti-NeuN (ab190565, grey) and anti-GFAP ([ab201732](#), magenta) on rat hippocampus.

Panel B: anti-Secernin-1 stained on rat hippocampus.

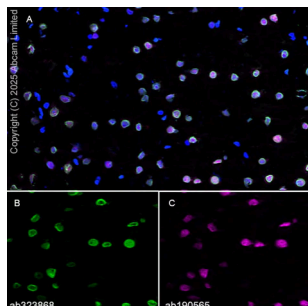
Panel C: anti-NeuN stained in neurons of rat hippocampus.

Panel D: anti-GFAP stained in astrocytes of rat hippocampus.

The section was incubated in two rounds of staining: in the order of [ab323711](#) and [ab190565](#), [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat cerebrum (fresh frozen) tissue labeling SUN1 with [ab323868](#) at 1/50 (10.2 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

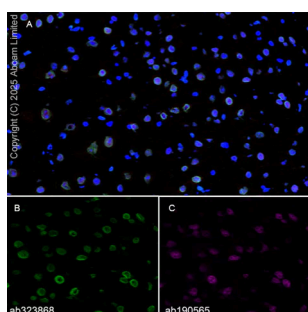
Panel A: merged staining of anti-SUN1 ([ab323868](#), green), anti-NeuN ([ab190565](#), magenta) on rat cerebrum.

Panel B: anti-SUN1 stained on rat cerebrum.

Panel C: anti-NeuN stained in neurons of rat cerebrum.

The section was incubated in two rounds of staining: in the order of [ab323868](#) and [ab190565](#), for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse cerebrum (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum (fresh frozen) tissue labeling SUN1 with [ab323868](#) at 1/50 (10.2 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

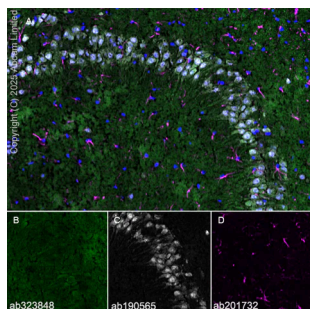
Panel A: merged staining of anti-SUN1 ([ab323868](#), green), anti-NeuN ([ab190565](#), magenta) on mouse cerebrum.

Panel B: anti-SUN1 stained on mouse cerebrum.

Panel C: anti-NeuN stained in neurons of mouse cerebrum.

The section was incubated in two rounds of staining: in the order of [ab323868](#) and [ab190565](#), for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse hippocampus (fresh frozen) tissue labeling Synaptojanin with [ab323848](#) at 1/50 (10.62 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution (Green).

Panel A: merged staining of anti-Synaptojanin-1 ([ab323848](#), green), anti-NeuN ([ab190565](#), white) and anti-GFAP ([ab201732](#), magenta) on mouse hippocampus.

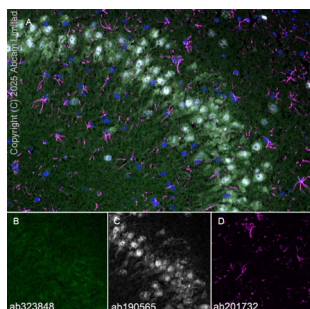
Panel B: anti-Synaptojanin-1 stained on mouse hippocampus.

Panel C: anti-NeuN stained in neurons of mouse hippocampus.

Panel D: anti-GFAP stained in astrocytes of mouse hippocampus.

The section was incubated in two rounds of staining: in the order of [ab323848](#) and [ab190565](#), [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Rat hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat hippocampus (fresh frozen) tissue labeling Synaptojanin with [ab323848](#) at 1/50 (10.62 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution (Green).

Panel A: merged staining of anti-Synaptojanin-1 ([ab323848](#), green), anti-NeuN ([ab190565](#), white) and anti-GFAP ([ab201732](#), magenta) on rat hippocampus.

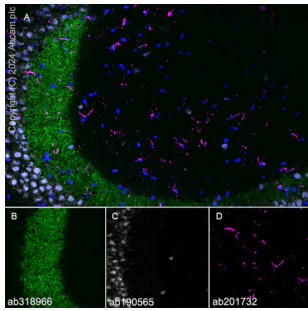
Panel B: anti-Synaptojanin-1 stained on rat hippocampus.

Panel C: anti-NeuN stained in neurons of rat hippocampus.

Panel D: anti-GFAP stained in astrocytes of rat hippocampus.

The section was incubated in two rounds of staining: in the order of [ab323848](#) and [ab190565](#), [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution.



Immunohistochemistry (Frozen sections) - Alexa Fluor® 647 Anti-NeuN antibody [EPR12763] - Neuronal Marker (ab190565)

NeuN Immunohistochemistry (Frozen sections) staining of Mouse hippocampus (fresh frozen) using rabbit Anti-NeuN antibody

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse hippocampus (fresh frozen) tissue labeling ProDynorphin with [ab318966](#) at 1/50 (10.06 ug/ml) dilution followed by [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green).

Panel A: merged staining of anti-ProDynorphin ([ab318966](#), green), anti-NeuN (ab190565, grey) and anti-GFAP ([ab201732](#), magenta) on mouse hippocampus.

Panel B: anti-ProDynorphin stained on mouse hippocampus.

Panel C: anti-NeuN stained in neurons of mouse hippocampus.

Panel D: anti-GFAP stained in astrocytes of mouse hippocampus.

The section was incubated in two rounds of staining: in the order of [ab318966](#) and ab190565, [ab201732](#) for 1 hr at room temperature. The nuclear counterstain was DAPI (Blue). The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is [ab150081](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.

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