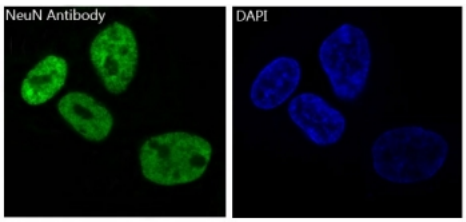
NeuN Antibody / RBFOX3 Neuronal Nuclear Marker [clone AO-18] (RQ4501)

Catalog No.	Formulation	Size
RQ4501	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

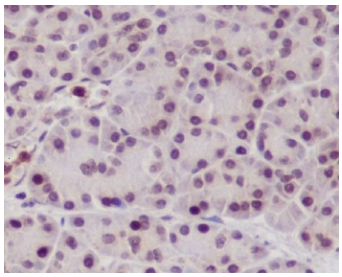
Recombinant RABBIT MONOCLONAL

Bulk quote request

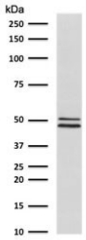
Availability	1-2 weeks
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AO-18
Purity	Protein A affinity
UniProt	A6NFN3
Localization	Nucleus, Cytoplasm
Applications	Western blot: 1:1000 Immunohistochemistry (FFPE): 1:50 Immunofluorescence: 1:50
Limitations	This NeuN Antibody / RBFOX3 Neuronal Nuclear Marker is available for research use only.



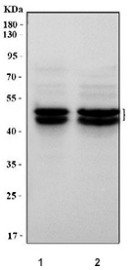
NeuN Antibody Neuronal Nuclear IF. Immunofluorescence analysis of RNA binding fox-1 homolog 3 / RBFOX3 (NeuN) in human SH-SY5Y cells using recombinant rabbit monoclonal NeuN antibody, clone AO-18. Green fluorescence highlights strong nuclear localization in neuronal cells, consistent with NeuN as a marker of mature neurons, while nuclei are counterstained with DAPI (blue).



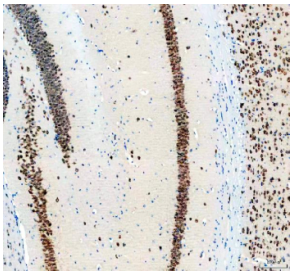
NeuN Antibody Pancreatic Tissue IHC. Immunohistochemistry of RNA binding fox-1 homolog 3 / RBFOX3 (NeuN) in FFPE human pancreas using recombinant rabbit monoclonal NeuN antibody, clone AO-18, at 2 ug/ml. HRP-DAB staining shows minimal to absent nuclear labeling in pancreatic epithelial cells, consistent with the neuron-restricted expression of NeuN, while nuclei are counterstained blue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 6 10 mM citrate buffer for 10-20 min followed by cooling at RT for 20 min.



NeuN Antibody Fetal Brain WB. Western blot analysis of RNA binding fox-1 homolog 3 / RBFOX3 (NeuN) in human fetal brain lysate using recombinant rabbit monoclonal NeuN antibody, clone AO-18, at 0.5 ug/ml. Two bands are detected at approximately 46-48 kDa, consistent with the expected molecular weight of RBFOX3 isoforms, supporting detection of this neuronal nuclear protein in developing neural tissue.



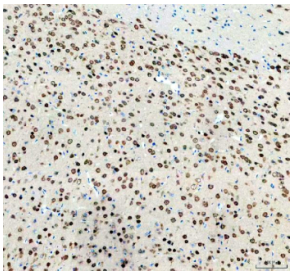
NeuN Antibody Brain Tissue WB. Western blot analysis of RNA binding fox-1 homolog 3 / RBFOX3 (NeuN) in rat brain (Lane 1) and mouse brain (Lane 2) tissue lysates using recombinant rabbit monoclonal NeuN antibody, clone AO-18. Two bands are detected at approximately 46-48 kDa in both lanes, consistent with the expected molecular weight of RBFOX3 isoforms, supporting conserved expression of this neuronal nuclear protein across species.



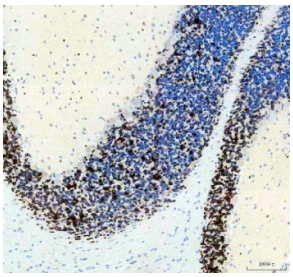
NeuN Antibody Mouse Brain IHC. Immunohistochemistry of RNA binding fox-1 homolog 3 / RBFOX3 (NeuN) in FFPE mouse brain tissue using recombinant rabbit monoclonal NeuN antibody, clone AO-18. HRP-DAB brown staining highlights strong nuclear labeling of neurons in distinct cortical and hippocampal layers, consistent with NeuN as a marker of mature neuronal populations, while surrounding glial cells show minimal staining and nuclei are counterstained blue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling prior to staining.



NeuN Antibody Cerebellar Layer IHC. Immunohistochemistry of RNA binding fox-1 homolog 3 / RBFOX3 (NeuN) in FFPE mouse cerebellum tissue using recombinant rabbit monoclonal NeuN antibody, clone AO-18. HRP-DAB brown staining highlights strong nuclear labeling of neurons within the granular layer, with minimal staining in the molecular layer, consistent with NeuN expression in mature neuronal populations, while nuclei are counterstained blue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling prior to staining.



NeuN Antibody Rat Brain IHC. Immunohistochemistry of RNA binding fox-1 homolog 3 / RBFOX3 (NeuN) in FFPE rat brain tissue using recombinant rabbit monoclonal NeuN antibody, clone AO-18. HRP-DAB brown staining highlights widespread nuclear labeling of neurons throughout the brain parenchyma, consistent with NeuN as a marker of mature neuronal populations, while non-neuronal cells show minimal staining and nuclei are counterstained blue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling prior to staining.



NeuN Antibody Rat Cerebellar IHC. Immunohistochemistry of RNA binding fox-1 homolog 3 / RBFOX3 (NeuN) in FFPE rat cerebellum tissue using recombinant rabbit monoclonal NeuN antibody, clone AO-18. HRP-DAB brown staining highlights dense nuclear labeling of neurons within the granular layer, with minimal staining in the molecular layer, consistent with NeuN expression in mature cerebellar neuronal populations, while nuclei are counterstained blue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling prior to staining.

Description

RNA binding fox-1 homolog 3 (RBFOX3), commonly known as NeuN, is a neuron-specific nuclear protein widely used as a marker for mature neurons in the central and peripheral nervous systems. NeuN Antibody / RBFOX3 Neuronal Nuclear Marker (clone AO-18) is designed as a reference reagent for detecting neuronal populations in a variety of experimental contexts. NeuN antibody, also referred to as RBFOX3 antibody or neuronal nuclei marker antibody in the literature, is extensively used in studies of neurodevelopment, neuroanatomy, and neurological disease.

RBFOX3 belongs to the FOX family of RNA-binding proteins, which regulate alternative splicing of pre-mRNA transcripts. Through this function, NeuN plays an important role in neuronal gene expression programs and maintenance of neuronal identity. Its expression is largely restricted to post-mitotic neurons, making it a reliable marker for distinguishing mature neurons from glial cells and other non-neuronal cell types.

NeuN is predominantly localized to the nucleus, although cytoplasmic staining may also be observed depending on cell type and physiological conditions. In immunohistochemistry, NeuN labeling typically appears as strong nuclear staining in neuronal cell bodies, providing clear visualization of neuronal distribution within brain and spinal cord tissues. This staining pattern is widely used for quantifying neuronal density and assessing neurodegeneration or injury.

In addition to its role in normal neurobiology, altered NeuN expression has been reported in various neurological disorders, including neurodegenerative diseases, traumatic brain injury, and epilepsy. Loss or reduction of NeuN staining is often used as an indicator of neuronal damage or cell death in experimental models.

Western blot analysis of RBFOX3 typically detects a band in the range of approximately 45-50 kDa, consistent with its predicted molecular weight, supporting its identification in biochemical assays. Immunofluorescence further confirms its nuclear localization in neuronal cells, making it a versatile marker across multiple assay platforms.

The recombinant rabbit monoclonal clone AO-18 antibody provides reliable detection of RBFOX3 in research applications. Its consistent performance in immunohistochemistry, western blot, and immunofluorescence makes it well suited as an anchor antibody for studies of neuronal identity, neural tissue architecture, and neurobiological processes.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the NeuN Antibody / RBFOX3 Neuronal Nuclear Marker should be determined by the researcher.

Immunogen

A synthetic peptide from human NeuN was used as the immunogen for the NeuN antibody.

Storage

After reconstitution, the NeuN antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

NeuN antibody, RBFOX3 antibody, RNA binding fox-1 homolog 3 antibody, Neuronal nuclei marker antibody, Neuron specific nuclear protein antibody

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