Product Specification Sheet

NeuN antibody

Cat # NEUN11-A | Rabbit Anti-Mouse NeuN antibody | **SIZE**: 100 µg

RNA binding protein fox-1 homolog 3 (also known as Fox-1 homolog C, Fox-3, Hexaribonucleotide-binding protein 3, NeuN, Neuronal nuclei) is encoded by the Rbfox3 gene in murine species. The RNA-binding Fox (Rbfox) family of splicing factors is comprised of three members, Rbfox1 (Fox-1 or A2BP1), Rbfox2 (Fox-2 or RBM9), and Rbfox3 (Fox-3, HRNBP3 or NeuN). Rbfox proteins regulate splicing of many neuronal transcripts (pre-mRNAs) by binding the sequence (U)GCAUG in introns flanking alternative exons. A (U)GCAUG motif that lies downstream of the alternative exon generally promotes Rbfox-dependent exon inclusion, whereas an upstream motif will usually repress exon inclusion. Originally characterized as a marker of post-mitotic neurons and named neuronal nuclei (NeuN), Rbfox3 plays a role in promoting neuronal differentiation through alternative splicing of Numb pre-mRNA during brain development. Rbfox3-knockout in mice is reported to result in defective hippocampal gene expression, defects in synaptic transmission and plasticity in the dentate gyrus, as well as increased seizure susceptibility and decreased anxiety-related behaviors. Likewise, human RBFOX3 gene mutations have been linked to neurodevelopmental delay, cognitive impairments, autistic features, and epilepsy.

Source of Antigen or Antibodies

Uniprot: Q8BIF2

Host: Rabbit

Clonality: Polyclonal

Purification: Ammonium sulfate followed by peptide affinity chromatography

Immunogen: 19 amino acid synthetic peptide derived from Mouse within amino acids 80-130

Species reactivity: Mouse, Rat, and Human

Cross reactivity: The peptide used as an immunogen exhibits 95% homology with Rat. 91% Non-human primate, human, bovine, sheep, horse, pig, and dog. 82% Cat. 72% Danio rerio. 70% Xenopus laevis NeuN.

Subcellular Location: Nucleus, Cytoplasm

Alternative names: Fox-1 homolog C, Fox-3, Neuronal nuclei antigen

Recommended Secondary Antibody: Goat anti-Rabbit IgG-HRP (**ADI cat#20320)**

Form & Storage of Antibodies

Affinity pure IgG Solution
Concentration: 0.5 mg/ml Volume: 200 µl
Supplied in PBS, pH 7.4 + 0.1% BSA
The antibody can be made available carrier free or conjugated to HRP, Biotin, or FITC on request

Lyophilized powder
Lyophilized from a formulation containing PBS, pH 7.4+3% Trehalose. Reconstitute powder in 200 µl PBS, 0.05% tween-20, and 0.1% BSA.

Storage:

Short-term: 4°C for 1 month

Long-term: at –20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple free/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at –20°C.

Recommended Usage

Immunohistochemistry: 1-10 µg/ml. QC tested using 10 mM sodium citrate pH 6, antigen retrieval buffer. The antibody may work better with no retrieval or different retrieval solutions.

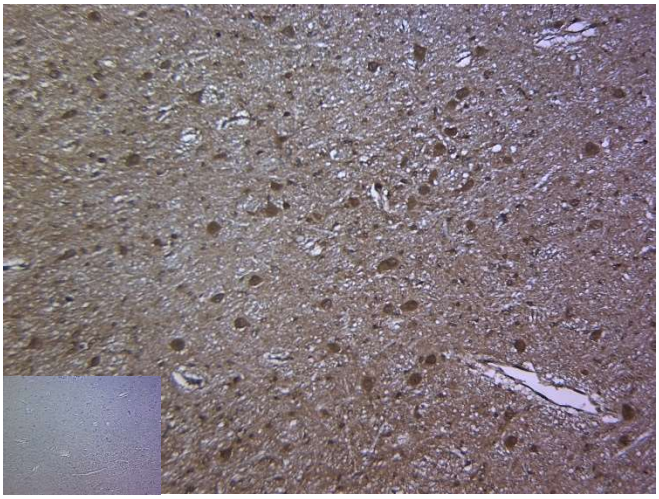
The above concentrations are a *suggestion*, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Flow Cytometry. These methods have not been tested by ADI.

This product is for In vitro research use only.

Related materials available from ADI

Catalog#	Description
DCX11-A	Rabbit Anti-Mouse Neuronal migration protein doublecortin (DCX) antibody

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com



Immunohistochemistry: FFPE Human cerebrum slides were heated for 20 minutes at 60ºC then deparaffinized. Antigen retrieval was performed for 10 minutes at 95ºC in a microwave using 10 mM pH 6, sodium citrate buffer. The slide was then cooled for 20 minutes at room temperature before being blocked for 30 minutes with 2.5% normal goat serum. **NEUN11-A** was diluted to 5 µg/ml in TBST+0.1% BSA and incubated overnight at 4ºC (Inset represents Immunogen peptide absorbed antibody incubation). The slides were then washed twice and incubated with 3% hydrogen peroxide for 10 minutes to quench endogenous peroxidase. The slide was washed then incubated with Goat anti-Rabbit IgG HRP polymer detection reagent for 30 minutes at room temperature. The slide was washed twice, incubated with DAB for 3 minutes, washed with distilled water, then counterstained for 1 minute with Gil's II Hematoxylin before being cover-slipped.