

Localization – Nuclear

Host Species – Mouse

Ig Class – IgG1

Intended Use

This antibody is designed for the specific localization of Neu-N in formalin-fixed, paraffin-embedded (FFPE) tissue sections.

Storage & Handling

Store RTU Vial at 2-8°C. Fresh dilutions for concentrated antibodies, if required, should be prepared prior to use and are stable for up to one day at room temperature (20-26°C).

Working Principle

NeuN, also known as Fox-3 (Feminizing Locus on X-3) or hexaribonucleotide-binding protein-3, is a neuron-specific nuclear protein expressed in the majority of neuronal populations within both the central nervous system (CNS) and peripheral nervous system (PNS). The spatial distribution of NeuN is predominantly nuclear, with additional localization to the neuronal perikaryon and select proximal neuronal processes, and this pattern is maintained in both fetal and adult neural tissues. Notably, certain neuronal subtypes consistently lack detectable NeuN expression across developmental stages, including inner nuclear layer (INL) retinal neurons, Cajal–Retzius cells, and Purkinje cells of the cerebellum, neurons of the inferior olivary and dentate nuclei, and sympathetic ganglion cells. Owing to its robust and selective expression in mature neurons, NeuN immunohistochemistry is extensively employed as a pan-neuronal marker. NeuN immunoreactivity typically emerges during neuronal maturation and differentiation, becoming prominent after the downregulation of Doublecortin, a microtubule-associated protein expressed during early neuronal development and migration. Consequently, NeuN serves as a reliable marker for post-mitotic, differentiated neurons in both developmental and neuropathological studies.

Material Supplied

Neu-N -antibody is affinity purified and diluted in PBS, pH 7.4, containing 1% BSA and 0.09% sodium azide.

Material required But Not Supplied

- Xylene
- DI Water
- Control Tissues
- Isopropyl alcohol
- Antigen retrieval buffers
- Hematoxylin
- Positive charged slides
- Blocking Reagents
- Mounting media
- Wash Buffer
- Detection System
- Cover glass

Working Reagent Procedure

- Ready-to-Use antibodies have been optimized for use with the recommended protocols and should not require further dilution.
- Concentrated antibodies must be diluted in accordance with the recommended protocol.

Recommended Protocol

Refer the following table for the details on specific recommended protocol for this antibody.

Control Tissue	Brain	Antibody Incubation Time	30-60 Minutes at RT
Dilution factor	1:20-50 (Antibody Diluent: DH144)	Retrieval Pre-treatment	Tris-EDTA based HIER (AR9 Buffer: DH020)

Precautions

This product should be used by qualified and trained professional users only.

Avoid microbial contamination of reagents to minimize non-specific staining. Never pipette reagents by mouth. Avoid contact of reagents and specimens with skin. If reagents or specimens come into contact with sensitive area, wash with sufficient amounts of water. Dispose of the unused reagents. This kit contain sodium azide at concentrations of less than 0.1%. Sodium azide is not classified as a hazardous chemical at these concentrations, but proper handling protocols should be observed. For more information on product hazards, precautions and waste disposal, *Material Safety Data Sheets* are available upon request.

Limitations

Improper tissue handling and processing prior to immunostaining can lead to inconsistent results. Variations in embedding and fixation or the nature of the tissue may lead to variations in results. Endogenous peroxidase activity or pseudo peroxidase activity in erythrocytes and tissue biotin may result in non-specific staining based on the detection system employed. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive with horseradish peroxidase systems. Improper counterstaining and mounting may compromise the interpretation of results. Interpretation of the staining result is solely the responsibility of the user. Experimental results should be confirmed by a medically-established diagnostic product or procedure. Evaluation must be performed by a qualified pathologist.

Troubleshooting

For Technical Support contact us at +91 - 7506501122 or info@dygnova.com or your local distributor to report unusual staining.

Doc No: DH/DS/TPT605Rev.00

	Manufacturer Details		Use by Date		Lot/Batch Number
	Manufacturing Date		Consult Instructions for Use		Catalogue Number
	Temperature Limits		Sufficient for 'n' assays / tests		In-vitro Diagnostic Medical Device