

## Monoclonal Antibody to NeuN - Cy3

<b>Alternate names:</b>	NEUronal Nuclei, Neuronal Nuclei
<b>Catalog No.:</b>	AM50500C3-N
<b>Quantity:</b>	0.1 ml
<b>Concentration:</b>	lot-specific
<b>Background:</b>	<p>NeuN antibody (NEUronal Nuclei; clone A60) specifically recognizes the DNA-binding, neuron-specific protein NeuN, which is present in most CNS and PNS neuronal cell types of all vertebrates tested. NeuN protein distributions are apparently restricted to neuronal nuclei, perikarya and some proximal neuronal processes in both fetal and adult brain although, some neurons fail to be recognized by NeuN at all ages: INL retinal cells, Cajal-Retzius cells, Purkinje cells, inferior olivary and dentate nucleus neurons, and sympathetic ganglion cells are examples (Mullen et al., 1992; Wolf et al., 1996). Immunohistochemically detectable NeuN protein first appears at developmental timepoints that correspond with the withdrawal of the neuron from the cell cycle and/or with the initiation of terminal differentiation of the neuron (Mullen et al., 1992). Immunoreactivity appears around E9.5 in the mouse neural tube and is extensive throughout the developing nervous system by E12.5. Strong nuclear staining suggests a nuclear regulatory protein function; however, no evidence currently exists as to whether the NeuN protein antigen has a function in the distal cytoplasm or whether it is merely synthesized there before being transported back into the nucleus. No difference between protein isolated from purified nuclei and whole brain extract on immunoblots has been found (Mullen et al., 1992).</p>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Clone:</b>	A60
<b>Immunogen:</b>	Purified cell nuclei from mouse brain.
<b>Format:</b>	<b>State:</b> Liquid purified Ig fraction <b>Purification:</b> Protein A Chromatography <b>Buffer System:</b> PBS with 0.09% sodium azide and 15 mg/mL BSA. <b>Label:</b> Cy3
<b>Applications:</b>	<b>Immunocytochemistry:</b> A 1:100 dilution of this antibody detected NeuN in rat E18 primary cortex cells.. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	NeuN (or Neuronal Nuclei) reacts with most neuronal cell types throughout the nervous system of mice including cerebellum, cerebral cortex, hippocampus, thalamus, spinal cord and neurons in the peripheral nervous system including dorsal root ganglia, sympathetic chain ganglia and enteric ganglia. Demonstrated to react with Rat. Predicted to react with Mouse based on 100% sequence homology. Unconjugated Anti-NeuN has been shown to work with multiple species

including Human, Mouse, Ferret, Chicken, and Avian.

**Storage:**

Store undiluted at 2-8°C.  
Shelf life: One year from despatch.

**Pictures:**

Immunocytochemistry Analysis:  
Representative lot data.  
Confocal fluorescent analysis of rat E18 primary cortex cells using Anti-NeuN, clone A60, Cy3 Conjugate. Anti-NeuN-Cy3 (Red) was tested at a 1:100 dilution and exhibited positive staining of neuronal nuclei. As a control, all nuclei were counterstained with DAPI (Blue).

