

# Product Datasheet

## RBFOX3/NeuN Antibody (1B7) - BSA Free NBP1-92693

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NBP1-92693**

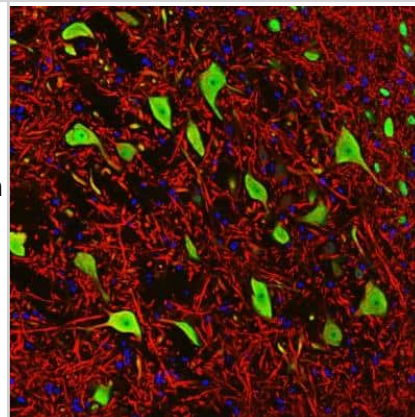
RBFOX3/NeuN Antibody (1B7) - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	1B7
Preservative	5mM Sodium Azide
Isotype	IgG2b
Purity	Immunogen affinity purified
Buffer	50% PBS, 50% glycerol
Target Molecular Weight	33.8 kDa
Product Description	
Description	Novus Biologicals Mouse RBFOX3/NeuN Antibody (1B7) - BSA Free (NBP1-92693) is a monoclonal antibody validated for use in IHC, WB, Flow, ICC/IF and ChIP. Anti-RBFOX3/NeuN Antibody: Cited in 60 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	146713
Gene Symbol	RBFOX3
Species	Human, Mouse, Rat
Marker	Neuronal Marker
Immunogen	N-terminal 99 amino acids of human FOX3 as expressed in and purified from E. coli
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Flow (Intracellular), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, CyTOF-ready
Recommended Dilutions	Western Blot 1:5000-1:10000, Flow Cytometry 1:10, Immunohistochemistry 1:400, Immunocytochemistry/ Immunofluorescence 1:500-1:1000, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen Reported in scientific literature (PMID: 30654114/ 23776455), Flow (Intracellular), CyTOF-ready
Application Notes	This RBFOX3/NeuN (1B7) antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry, and Western blot, where bands can be seen at 46 and 48 kDa. Flow Cytometry was reported in verified customer review using Alexa Fluor 700 conjugated form of this antibody, NBP1-92693AF700. This antibody is CyTOF ready.

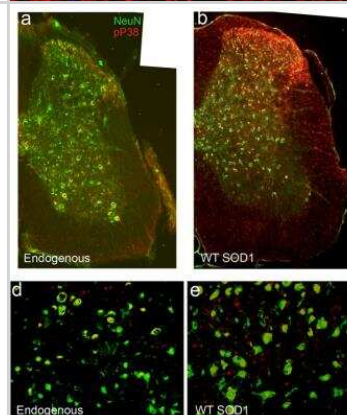


## Images

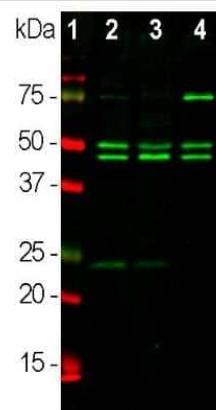
Formalin fixed rat brain stem neurons stained with to NeuN in green and counter stained with , our chicken polyclonal antibody to microtubule associated protein 2 in red. The nuclei of cells are revealed with DAPI in blue. The antibody reveals strong nuclear and distal cytoplasmic staining for Fox3/NeuN and the complete absence of staining of other cell types. The MAP2 antibody binds to dendrites and overlaps with Fox3 staining in perikarya. This Fox3/NeuN antibody is therefore an excellent marker of neuronal cells.



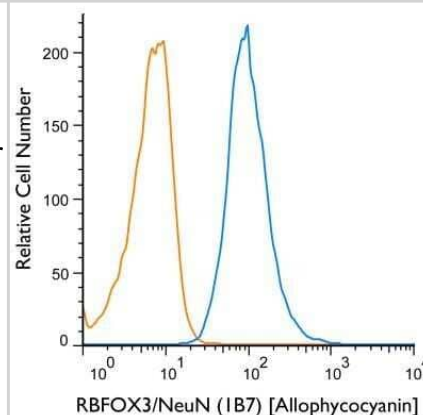
Spinal cords from 60 days old naive nontransgenic mice (endogenous) and transgenic mice overexpressing human WT- SOD1 were analyzed by immunohistochemistry for cellular distribution of activated p38 MAPK. Low magnification (10X objective) images of lumbar spinal cord double-labeled with a neuronal marker (NeuN, in green) and activated p38 MAPK (pP38, in red). Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0065235>), licensed under a CC-BY license.



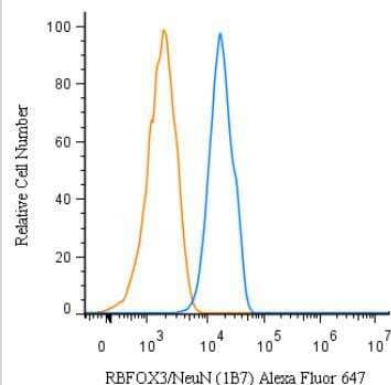
Analysis of whole brain tissue lysates using mouse mAb to FOX3/NeuN NBP1-92693, dilution 1:1,000 in green: [1] protein standard (red), [2] adult rat brain, [3] embryonic E20 rat brain, [4] adult mouse brain. Note the strong twin bands corresponding to the two alternate transcripts of FOX3/NeuN protein with apparent SDS-PAGE molecular weights of 46 and 48kDa. As with other FOX3/NeuN antibodies, an additional band at ~70kDa is revealed in some lysates.



Using the Allophycocyanin direct conjugate An intracellular stain was performed on SH-SY5Y cells with RBFOX3/NeuN (1B7) antibody NBP1-92693APC (blue) and a matched isotype control NB600-986APC (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Allophycocyanin.

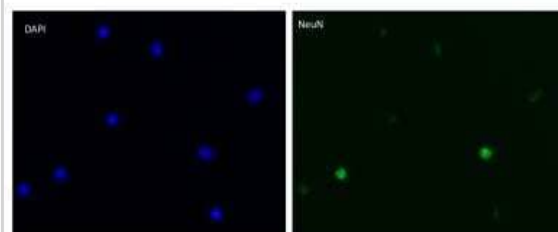


An intracellular stain was performed on SH-SY5Y cells with RBFOX3/NeuN (1B7) antibody NBP1-92693AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.

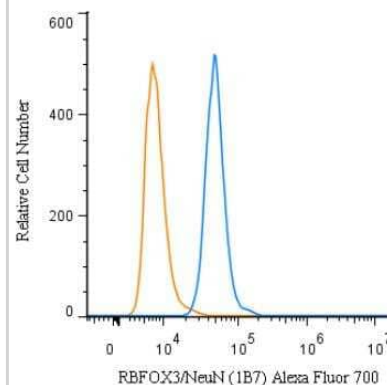


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Dissociated spinal cord nuclei immunostained with anti-NeuN antibody and Alexa 488 secondary. DAPI (Blue) to stain nuclei. This image was submitted by customer review.

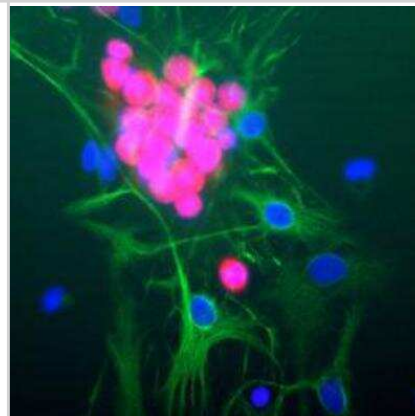


An intracellular stain was performed on U87-MG cells with RBFOX3/NeuN (1B7) antibody NBP1-92693AF700 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 700.

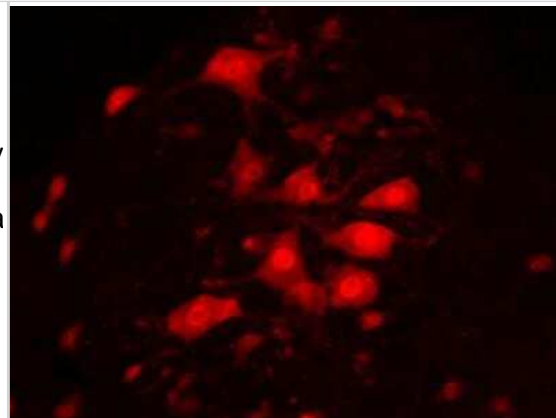


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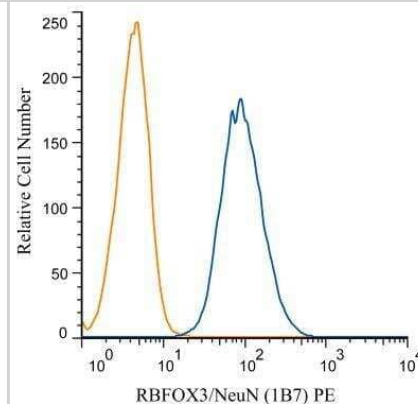
Rat brain neural cultures stained with NBP1-92693 (red), a chicken polyclonal antibody to GFAP (NBP1-05198, green) and DAPI (blue). NBP1-92693 reveals strong nuclear and distal cytoplasmic staining for RBFOX/NeuN and the complete absence of staining of astrocytes, which are staining with the GFAP antibody, and other kinds of non-neuronal cells. This RBFOX/NeuN (1B7) antibody is therefore an excellent marker of neuronal cells.



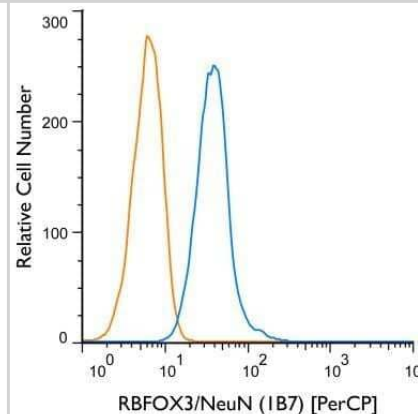
IHC-Fr analysis of a 4% PFA fixed mouse spinal cord tissue section using RBFOX3/NeuN antibody (clone 1B7) at 1:500 dilution with overnight 4C incubation in a dilution buffer which contained BSA 1% and 0.2% TritonX100 in PBS. The signal was detected using Alexa Fluor 594 conjugated goat anti-mouse IgG (H+L) secondary antibody. The antibody generated a specific cytoplasmic-nuclear signal and the staining was more intense in the nuclei of the neurons. This image was submitted as a review via a verified end user of this product.



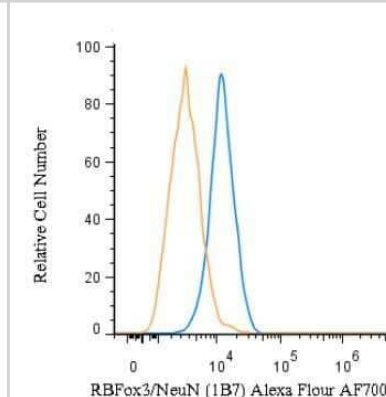
Analysis of PE conjugate of NBP1-92693. An intracellular stain was performed on SH-SY5Y cells with RBFOX3 (1B7) antibody NBP1-92693PE (blue) and a matched isotype control NB600-986PE (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Phycoerythrin.



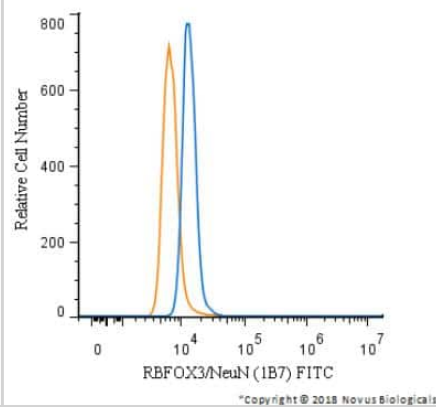
Using the PerCP direct conjugate An intracellular stain was performed on SH-SY5Y cells with RBFOX3/NeuN (1B7) antibody NBP1-92693PCP (blue) and a matched isotype control NB600-986PCP (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Peridinin-Chlorophyll-protein.



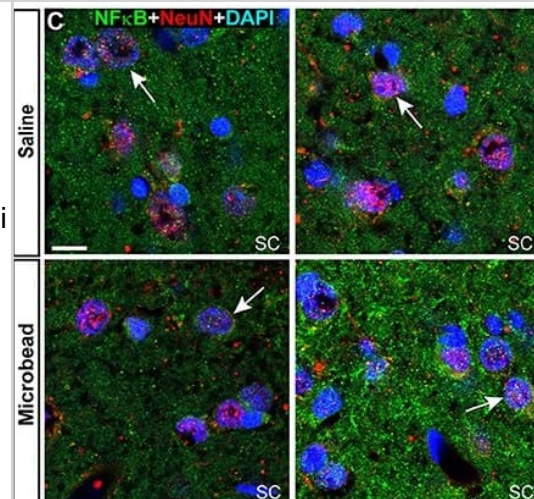
An intracellular stain was performed on SH-SY5Y cells with RBFOX3/NeuN (1B7) antibody NBP1-92693AF700 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 700. Image from the Alexa Fluor 700 version of this antibody.



An intracellular stain was performed on A549 cells with RBFOX3/NeuN (1B7) antibody NBP1-92693F (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10  $\mu\text{g}/\text{mL}$  for 30 minutes at room temperature. Both antibodies were conjugated to FITC.



Immunocytochemistry/ Immunofluorescence: RBFOX3/NeuN Antibody (1B7) [NBP1-92693] - NF $\kappa$ B localizes to both neuronal & glial nuclei in superior colliculus. Representative confocal images of NF $\kappa$ B in the superior colliculus (SC) of vehicle- & HE3286-treated rats with all nuclei indicated (DAPI). Sections were also labeled for astrocytes (A, GFAP), microglia (B, Iba1), or neurons using antibodies against either NeuN (C) or phosphorylated neurofilament heavy (pNFH; D). Representative nuclei from each cell class demonstrated NF $\kappa$ B localization (arrows). Insets (solid white, B) show region contained within dashed box with red channel removed to better visualize nuclear localization of NF $\kappa$ B. Scale: 10  $\mu\text{m}$ . Image collected & cropped by CiteAb from the following publication (<http://journal.frontiersin.org/article/10.3389/fnins.2017.00045/full>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Citron B, Guzman M, Shapdoor B et al. Moderate Chronic Treadmill Exercise Slows Dopaminergic Neuron Loss in a Rat Model of Parkinson's Disease and Alters RNA Content of Circulating Plasma Exosomes. *Journal of neuroscience research* 2025-10-13 [PMID: 41078024]

Wang Z, Ding D, Wang J et al. Soluble  $\beta$ -Amyloid Oligomers Selectively Upregulate TRPC3 in Excitatory Neurons via Calcineurin-Coupled NFAT. *Cells* 2025-06-11 [PMID: 40498020]

Orhan M, Oktay L, Cinar A et al. Niraparib Demonstrates Therapeutic Potential in Multiple Sclerosis through Inhibition of IL-17A Receptor Interaction and Promotion of Remyelination *ACS chemical neuroscience* 2025-09-09 [PMID: 40924614]

Jia Z, Guo M, Li M et al. Decreased IL-33 in the brain following repetitive mild traumatic brain injury contributes to cognitive impairment by inhibiting microglial phagocytosis *Military Medical Research* 2025-08-05 [PMID: 40764944]

Chen W, Li Y, Steinhoff M et al. The PLAUR signaling promotes chronic pruritus *The FASEB Journal* 2022-06-01 [PMID: 35596683] (Immunohistochemistry-Frozen, Immunocytochemistry/ Immunofluorescence, Mouse)

Zhang H, Guo Y, Yang Y et al. MAP4Ks inhibition promotes retinal neuron regeneration from Müller glia in adult mice *npj Regenerative Medicine* 2023-07-13 [PMID: 37443319] (Immunohistochemistry-Frozen, Immunocytochemistry/ Immunofluorescence, Mouse)

Cicardi ME, Hallgren JH, Mawrie D et al. C9orf72 poly(PR) mediated neurodegeneration is associated with nucleolar stress *iScience* 2023-09-15 [PMID: 37664610] (Immunohistochemistry-Frozen, Immunocytochemistry/ Immunofluorescence, Mouse)

Wong H, Buck JM, Borski C et al. RCAN1 knockout and overexpression recapitulate an ensemble of rest-activity and circadian disruptions characteristic of Down syndrome, Alzheimer's disease, and normative aging *Journal of Neurodevelopmental Disorders* 2022-12-01 [PMID: 35610565] (Immunohistochemistry-Frozen, Immunocytochemistry/ Immunofluorescence, Mouse)

Yin, C, Liu, B Et al. Eucalyptol alleviates inflammation and pain responses in a mouse model of gout arthritis. *Br J Pharmacol* 2020-05-01 [PMID: 31883118]

Howell JA, Gaouette N, Lopez M, Burke SP et Al. Elastin-like polypeptide delivery of anti-inflammatory peptides to the brain following ischemic stroke *FASEB J* 2023-07-04 [PMID: 37402128]

Yi Y, Che W, Xu P, Mao C et Al. Conversion of glioma cells into neuron-like cells by small molecules *iScience* 2024-11-01 [PMID: 39483145]

Van Duyne R, Irollo E, Lin A, Johnson JA, Guillem AM, O'Brien EV, Merja L, Nash B, Jackson JG, Sarkar A, Klase ZA, Meucci O. Adult Human Brain Tissue Cultures to Study NeuroHIV. *Cells* 2024-07-12 [PMID: 38994979]

More publications at <http://www.novusbio.com/NBP1-92693>



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General: novus@novusbio.com

### **Products Related to NBP1-92693**

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP2-27231	Mouse IgG2b Isotype Control (MPC-11)

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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