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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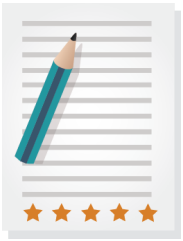
Updated 2/21/2025 v.20.1



NBP1-92693

RBFOX3/NeuN Antibody (1B7) - BSA Free

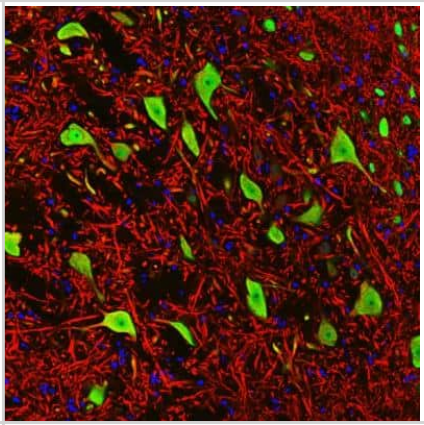
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	1B7
Preservative	0.035% Sodium Azide
Isotype	IgG2b Kappa
Purity	Immunogen affinity purified
Buffer	50% PBS, 50% glycerol
Target Molecular Weight	33.8 kDa

Product Description	
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

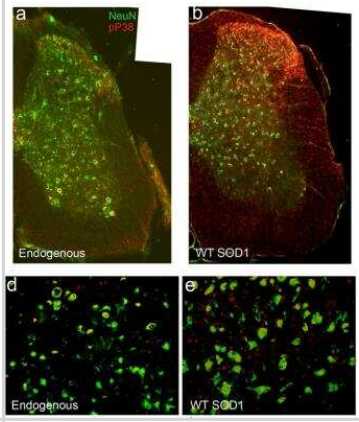
Product Application Details	
Applications	Western Blot, Flow Cytometry, Flow (Intracellular), Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, CyTOF-ready
Recommended Dilutions	Western Blot 1:5000-1:10000, Flow Cytometry 1:10, 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

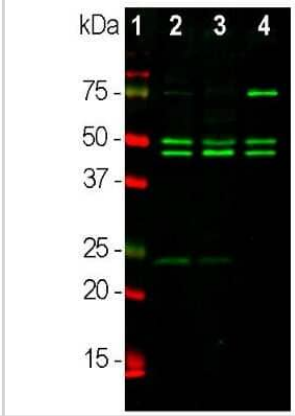
Formalin fixed rat brain stem neurons stained with to NeuN in green and counter stained with , our chicken polyclonal antibody to microtubule associated protein 2 in red. The nuclei of cells are revealed with DAPI in blue. The antibody reveals strong nuclear and distal cytoplasmic staining for Fox3/NeuN 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.



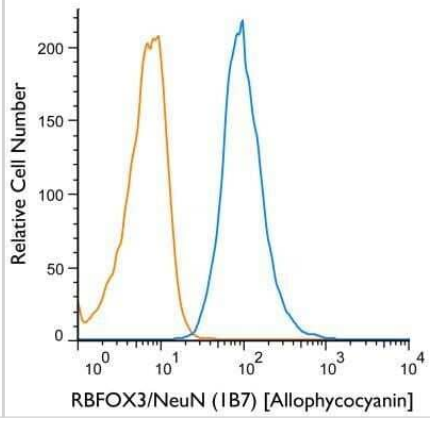
Spinal cords from 60 days old nalve nontransgenic mice (endogenous) and transgenic mice overexpressing human WT- SOD1 were analyzed by immunohistochemistry for cellular distribution of activated p38 MAPK. Low magnification (10X objective) images of lumbar spinal cord double-labeled with a neuronal marker (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.

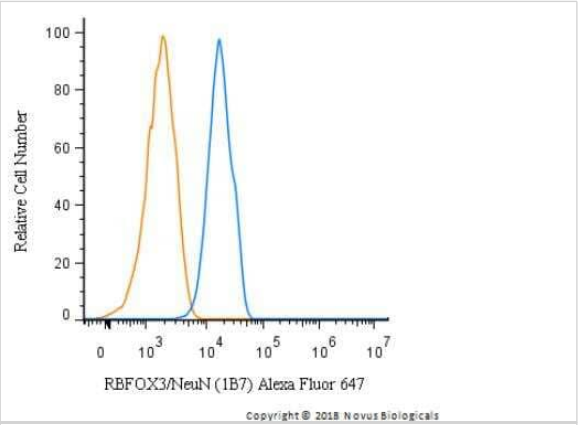
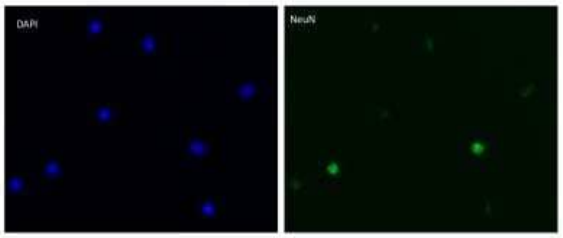
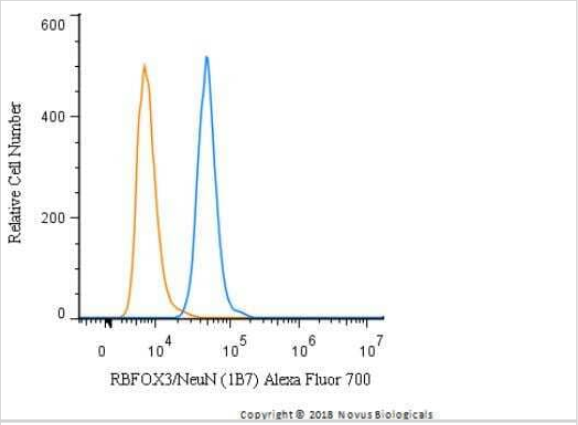
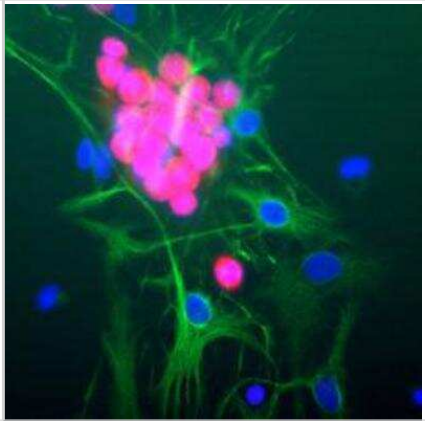


Analysis of whole brain tissue lysates using mouse mAb to FOX3/NeuN NBP1-92693, dilution 1:1,000 in green: [1] protein standard (red), [2] adult rat brain, [3] embryonic E20 rat brain, [4] adult mouse brain. Note the strong twin bands corresponding to the two alternate transcripts of FOX3/NeuN protein 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.

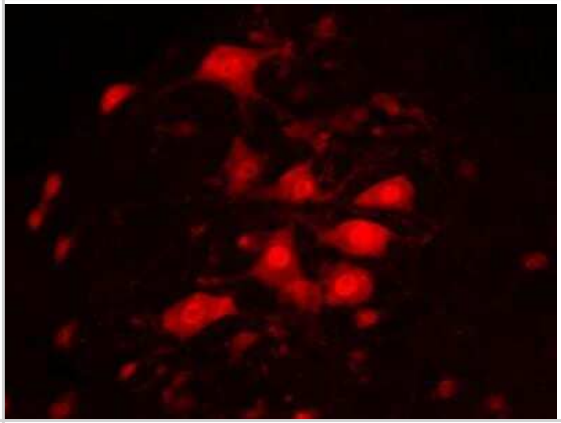


Using the Allophycocyanin direct conjugate An intracellular stain was performed on SH-SY5Y cells with RBFOXP3/NeuN (1B7) antibody NBP1 -92693APC (blue) and a matched isotype control NB600-986APC (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Allophycocyanin.

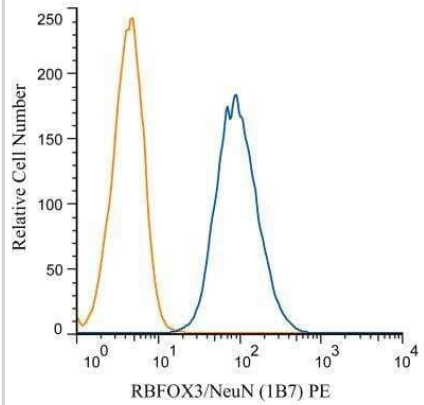


An intracellular stain was performed on SH-SY5Y cells with RBFOXP3/NeuN (1B7) antibody NBP1-92693AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.	
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 RBFOXP3/NeuN (1B7) antibody NBP1-92693AF700 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeablized 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.	
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.	

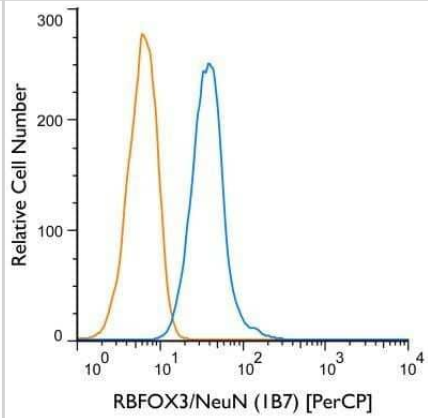
IHC-Fr analysis of a 4% PFA fixed mouse spinal cord tissue section using RBFOX3/NeuN antibody (clone 1B7) at 1:500 dilution with overnight 4C incubation in a dilution buffer which contained BSA 1% and 0.2% TritonX100 in PBS. The signal was detected using Alexa Fluor 594 conjugated goat anti-mouse IgG (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.



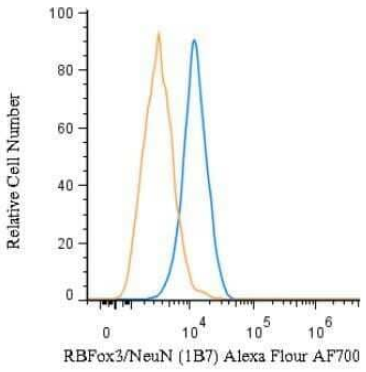
Analysis of PE conjugate of NBP1-92693. An intracellular stain was performed on SH-SY5Y cells with RBFOX3 (1B7) antibody NBP1-92693PE (blue) and a matched isotype control NB600-986PE (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution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

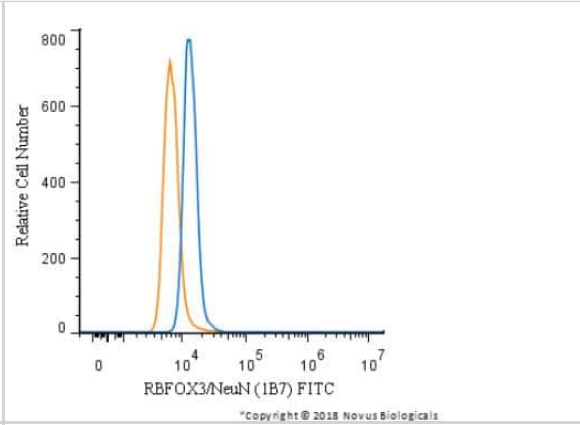
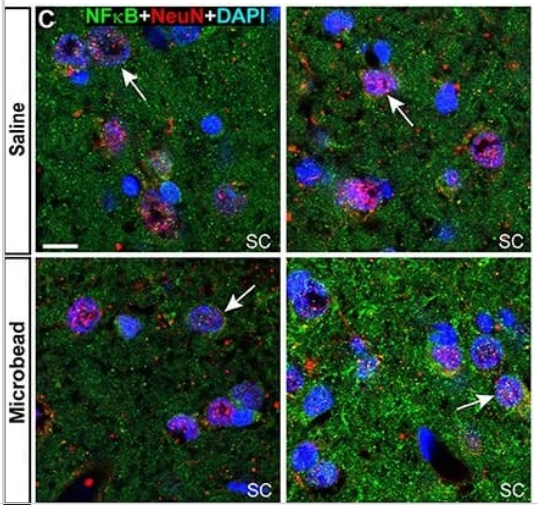


Using the PerCP direct conjugate An intracellular stain was performed on SH-SY5Y cells with RBFOXP3/NeuN (1B7) antibody NBP1-92693PCP (blue) and a matched isotype control NB600-986PCP (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution 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 RBFOXP3/NeuN (1B7) antibody NBP1-92693AF700 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeablized 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 RBFOXP3/NeuN (1B7) antibody NBP1-92693F (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeablized 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 FITC.	
Immunocytochemistry/ Immunofluorescence: RBFOX3/NeuN Antibody (1B7) [NBP1-92693] - NFκB localizes to both neuronal & glial nuclei in superior colliculus. Representative confocal images of NFκB 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 NFκB localization (arrows). Insets (solid white, B) show region contained within dashed box with red channel removed to better visualize nuclear localization of NFκB. Scale: 10 µm. 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

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]

Lancaster MS, Kim B, Doud EH, Tate MD et Al. Loss of succinyl-CoA synthetase in mouse forebrain results in hypersuccinylation with perturbed neuronal transcription and metabolism Cell Rep 2023-10-11 [PMID: 37819759]

Tejeda GS, Esteban-Ortega GM, San Antonio E et Al. Prevention of excitotoxicity-induced processing of BDNF receptor TrkB-FL leads to stroke neuroprotection EMBO Mol Med 2019-06-03 [PMID: 31273936]

Bryant A, Li Z, Jayakumar R et al. Endothelial Cells Are Heterogeneous in Different Brain Regions and Are Dramatically Altered in Alzheimer's Disease The Journal of Neuroscience 2023-06-14 [PMID: 37208174]

Milstead RA, Link CD, Xu Z, Hoeffer CA TDP-43 knockdown in mouse model of ALS leads to dsRNA deposition, gliosis, and neurodegeneration in the spinal cord Cerebral cortex (New York, N.Y. : 1991) 2022-11-28 [PMID: 36443249]

Weaver FE, White E, Peek AM et Al. 4-Phenylbutyric acid mitigates ER stress-induced neurodegeneration in the spinal cords of a GM2 gangliosidosis mouse model Hum Mol Genet 2024-11-12 [PMID: 39530163]

Xu C, Wang Y, Ni C et Al. Histone modifications and Sp1 promote GPR160 expression in bone cancer pain within rodent models EMBO Rep 2024-10-24 [PMID: 39448865]

Tanabe M, Kunisawa K, Saito I et Al. Adolescent social isolation decreases colonic goblet cells and impairs spatial cognition through the reduction of cystine Mol Psychiatry 2024-11-29 [PMID: 39613916]

Velmurugan GV, Vekaria HJ, Patel SP et Al. Astrocytic mitochondrial transfer to brain endothelial cells and pericytes in vivo increases with aging J Cereb Blood Flow Metab 2024-12-12 [PMID: 39668588]

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NBP1-92693AF647	RBFOX3/NeuN Antibody (1B7) [Alexa Fluor® 647]

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