Product Datasheet

NF-M Antibody
NB300-133

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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Publications: 9

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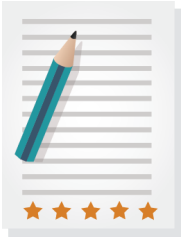
Updated 10/23/2024 v.20.1



NB300-133

NF-M Antibody

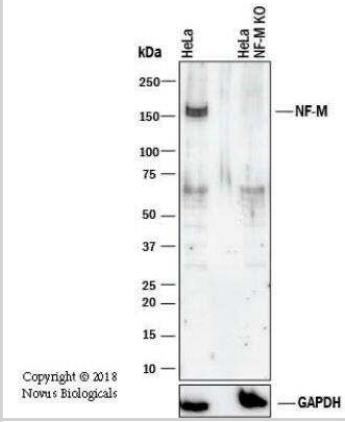
Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.035% Sodium Azide
Isotype	IgG
Purity	Unpurified
Buffer	Supplied as serum
Target Molecular Weight	160 kDa

Product Description	
Host	Rabbit
Gene ID	4741
Gene Symbol	NEFM
Species	Human, Mouse, Rat, Porcine, Bovine, Chicken, Equine
Marker	Neuronal Marker
Specificity/Sensitivity	Specifically recognizes the evolutionarily conserved extreme C-terminal region of Neurofilament Medium (~145-170kDa).
Immunogen	Recombinant fusion protein containing the extreme C-terminal segment of rat NF-M, amino acids 549-845

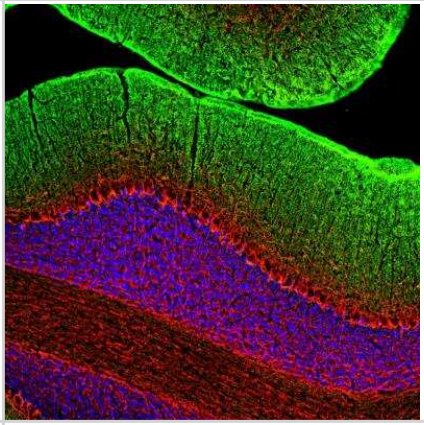
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Knockout Validated
Recommended Dilutions	Western Blot 1:1000-1:5000, Immunohistochemistry 1:1000-1:2500, Immunocytochemistry/ Immunofluorescence 1:1000-1:2500, Immunohistochemistry-Paraffin 1:1000-1:2500, Immunohistochemistry-Frozen 1:1000-1:2500, Knockout Validated
Application Notes	This 160kDa Neurofilament Medium Antibody is useful for WB, ICC/IF, IHC-P, and IHC-F. In WB a band can be seen around 145kDa corresponding to rodent Neurofilament Medium. Human and bovine Neurofilament Medium run a little slower and can be seen at about 160kDa. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

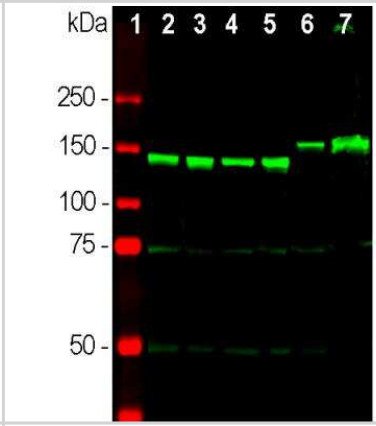
Knockout Validated: NF-M Antibody [NB300-133] - Analysis lysates of HeLa human cervical epithelial carcinoma parental cell line and NF-M knockout (KO) HeLa cell line. PVDF membrane was probed with 1:5,000 of Rabbit Anti-Human NF-M Polyclonal Antibody (Catalog # NB300-133) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog #HAF008). Specific band was detected for NF-M at approximately 155 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the knockout HeLa cell line. This experiment was conducted under reducing conditions.



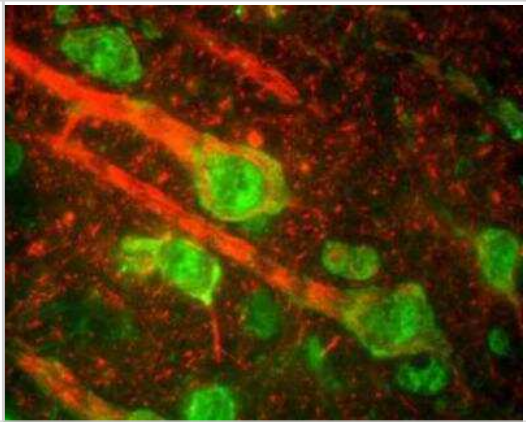
Immunocytochemistry/Immunofluorescence: NF-M Antibody [NB300-133] - Analysis of rat cerebellum section stained with rabbit pAb to NF-M, NB300-133, dilution 1:2,000 in red, and costained with mouse mAb to GAP43, dilution 1:2,000 in green. Following transcardial perfusion of rat with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45uM, and free-floating sections were stained with the above antibodies. NB300-133 antibody strongly labels neuronal processes throughout the cerebellum, while the GAP43 antibody stains predominantly synaptic regios in the molecular layer.



Western Blot: NF-M Antibody [NB300-133] - Analysis of neuronal tissue lysates using rabbit pAb to NF-M, NB300-133, dilution 1:2,000 in green: [1] protein standard (red), [2] rat brain, [3] rat spinal cord, [4] mouse brain, [5] mouse spinal cord, [6] pig brain, [7] pig spinal cord. Strong bands at 145kDa correspond to rodent NF-M molecules, while the NF-M of pig and other larger mammals including humans run at about 160kDa.

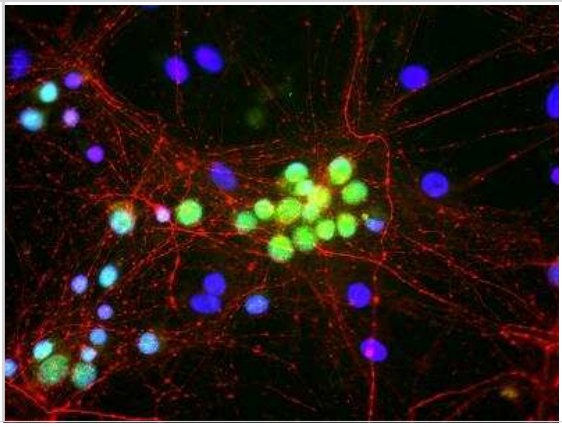


Immunohistochemistry-Frozen: NF-M Antibody [NB300-133] - Staining of cerebral cortex section from Rat with NF-M antibody (red) at 1:5000 dilution. This immunostaining reveals the perikarya of pyramidal neurons and dendrites as well as axons surrounding the neurons. The green channel shows staining with a monoclonal antibody to beta-adrendergic receptor kinase 1.



Western Blot: NF-M Antibody [NB300-133] - Analysis of 160kDa Neurofilament Medium expression on whole rat cerebellum homogenate using NB300-133.

Immunocytochemistry/Immunofluorescence: NF-M Antibody [NB300-133] - Mixed neuron/glia cultures stained with NB300-133 (red) and NBP2-25141 (green), Novus' mouse monoclonal antibody to Fox1, an mRNA binding protein closely related to Fox3/NeuN. The RPCA-NF-M antibody stains axonal, dendritic and perikaryal profiles of neurons cleanly and specifically. Like antibody to Fox3/NeuN, the Fox1 antibody binds to the nuclei of neurons only. DNA is shown in blue with the DAPI stain.



Publications

Hughes RO, Bosanac T, Mao X, et al. Small Molecule SARM1 Inhibitors Recapitulate the SARM1-/- Phenotype and Allow Recovery of a Metastable Pool of Axons Fated to Degenerate Cell reports 2021-01-05 [PMID: 33406435] (IF/IHC, Mouse)

Pewzner-Jung Y, Joseph T, Blumenreich S et al. Brain pathology and cerebellar purkinje cell loss in a mouse model of chronic neuronopathic Gaucher disease Cell Metab 2020-11-03 [PMID: 33152398]

Sikora J, Dworski S, Jones EE et al. Acid Ceramidase Deficiency in Mice Results in a Broad Range of Central Nervous System Abnormalities. Am. J. Pathol. 2017-04-01 [PMID: 28342444] (ICC/IF, Mouse)

Li LS, Liu CZ, Xu JD et al. Effect of entacapone on colon motility and ion transport in a rat model of Parkinson's disease. World J Gastroenterol 2015-03-28 [PMID: 25834315] (Rat)

From R, Eilam R, Bar-Lev DD et al. Oligodendrogenesis and myelinogenesis during postnatal development effect of glatiramer acetate. Glia 2014-02-13 [PMID: 24481644] (IHC-P, Mouse)

Liu HX, Ermilov A, Grachtchouk M et al. Multiple Shh signaling centers participate in fungiform papilla and taste bud formation and maintenance. Dev Biol 2013-08-02 [PMID: 23916850] (IF/IHC, Mouse)

Ziv-Polat O, Skaat H, Shahar A, Margel S. Novel magnetic fibrin hydrogel scaffolds containing thrombin and growth factors conjugated iron oxide nanoparticles for tissue engineering Int J Nanomedicine 2012-01-01 [PMID: 22419873] (ICC/IF, Rat)

Elan D Louis, Karen, Rachel Babij, Etty Cortes, Ronald K Liem, Jean-Paul G Vonsattel, Phyllis L Faust. Neurofilament Protein Levels: Quantitative Analysis in Essential Tremor Cerebellar Cortex, . Neuroscience Letters, Available online , 10.1016/j.neulet.2012.04.054. 2012-05-04 [PMID: 22561033] (WB, Human)

Skaat H, Ziv-Polat O, Shahar A, Margel S. Enhancement of the growth and differentiation of nasal olfactory mucosa cells by the conjugation of growth factors to functional nanoparticles. Bioconjug Chem;22(12):2600-10. 2011-12-21 [PMID: 22029397] (ICC/IF, Rat)

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Products Related to NB300-133

NBL1-13578	NF-M Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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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