Product Datasheet

NF-H Antibody
NB300-135

Unit Size: 0.05 ml

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

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Publications: 29

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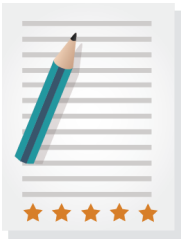
Updated 10/23/2024 v.20.1



NB300-135

NF-H Antibody

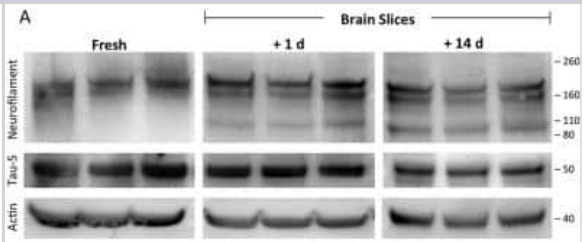
Product Information	
Unit Size	0.05 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.035% Sodium Azide
Isotype	IgG
Purity	Unpurified
Buffer	Supplied as serum
Target Molecular Weight	210 kDa

Product Description	
Host	Rabbit
Gene ID	4744
Gene Symbol	NEFH
Species	Human, Mouse, Rat, Porcine, Bovine, Equine
Marker	Neuronal Marker
Specificity/Sensitivity	Phosphorylated and non-phosphorylated forms of 200kDa Neurofilament Heavy
Immunogen	Purified bovine Neurofilament Heavy protein.

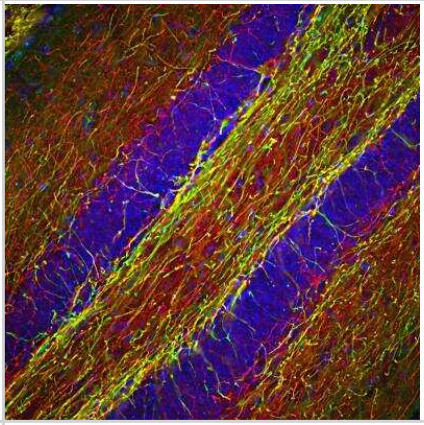
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, In vitro assay, Immunohistochemistry Whole-Mount
Recommended Dilutions	Western Blot 1:10000-1:25000, ELISA 1:100-1:2000, Immunohistochemistry 1:1000-1:5000, Immunocytochemistry/ Immunofluorescence 1:1000-1:5000, Immunohistochemistry-Paraffin 1:1000-1:5000, Immunohistochemistry-Frozen 1:1000-1:5000, In vitro assay, Immunohistochemistry Whole-Mount
Application Notes	This 200kDa Neurofilament Heavy Antibody is useful for WB, ICC/IF, ELISA and IHC-P, IHC-Frozen. In WB a band can be seen at around 200kDa corresponding to rodent Neurofilament Heavy. In larger species such as porcine or human, Neurofilament Heavy runs a little slower and can be seen around 210-220kDa. 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. Use in In vitro assay reported in scientific literature (PMID 27789413). Use in IHC-WhMt reported in scientific literature (PMID:33499508)

Images

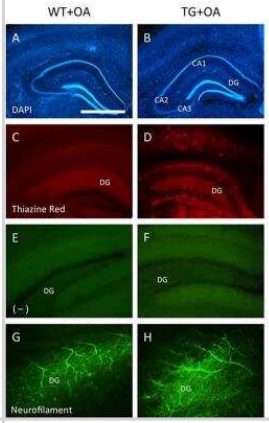
Western Blot: NF-H Antibody [NB300-135] - Proof of viability of organotypic adult brain slices. Brain slices of adult 9 month old wildtype (WT) mice were dissected fresh or incubated for either 1 day or for 14 days to examine vitality of slices (A). Brain slices were subsequently analyzed by Western blot using antibodies against Neurofilament-200 kDa, total tau (Tau-5) and actin served as a control. Size markers are given as kDa on the right side. Note some degradation of neurofilament but stability of Tau-5. Image collected and cropped by CiteAb from the following publication (https://journal.frontiersin.org/article/10.3389/fnagi.2018.00113/full) licensed under a CC-BY license.



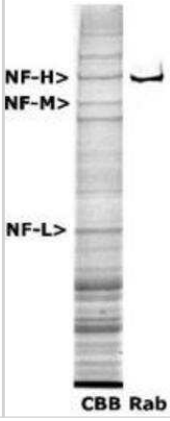
Immunohistochemistry: NF-H Antibody [NB300-135] - Mouse hippocampus section stained with rabbit pAb to NF-H, dilution 1:2,000 in red, and costained with mouse mAb to myelin basic protein (MBP), dilution 1:5,000 in green. The blue is DAPI staining of nuclear DNA. Following transcardial perfusion with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45uM, and free-floating sections were stained with above antibodies. The NF-H antibody labels a network of axons of different neurons, while the MBP antibody stains myelin sheath around these axons.



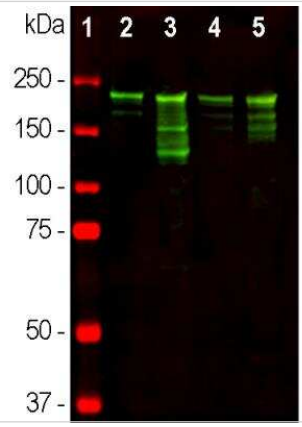
Immunohistochemistry: NF-H Antibody [NB300-135] - Immunostainings of adult organotypic brain slices at the hippocampal level. Brain slices were prepared from WT or TG adult mice and incubated with okadaic acid (OA). Brain slices were stained for nuclear DAPI (blue, A,B) showing intact brain structures. Thiazine Red staining (C,D) shows red fluorescent plaques in the hippocampus (D) of TG mice, while only background is seen in the hippocampus (C) of WT mice. Staining of neurofilament fibers (G,H) shows good neuronal viability both in WT and TG mice. Image collected and cropped by CiteAb from the following publication (https://journal.frontiersin.org/article/10.3389/fnagi.2018.00113/full) licensed under a CC-BY license.



Western Blot: NF-H Antibody [NB300-135] - Analysis of 200kDa Neurofilament Heavy expression in rat spinal cord extract. The first lane is Coomassie Brilliant Blue stained and the second lane is probed with rabbit anti-Neurofilament Heavy antibody NB300-135. The NF-H corresponds to a weight of 200kDa.



Western Blot: NF-H Antibody [NB300-135] - Different tissue lysates using rabbit pAb to NF-H, dilution 1:10,000 in green: [1] protein standard (red), [2] rat brain, [3] rat spinal cord [4] mouse brain, and [5] mouse spinal cord lysate. Strong band at about 220 kDa corresponds to the phosphorylated axonal form of the NF-H subunit. Smaller proteolytic fragments of NF-H are also detected with RPCA-NF-H antibody.



Publications

Lee JI, Gurjar AA, Talukder MAH et al. A novel nerve transection and repair method in mice: histomorphometric analysis of nerves, blood vessels, and muscles with functional recovery Scientific reports 2020-12-10 [PMID: 33303798]

Jia X, Liu X, Zhu T et al. Infiltrated Macrophages Aggravate TMJOA Chronic Pain Via Piezo2 in IB4 -TG Neurons papers.ssrn.com 2023-11-28 (IHC-Fr, Rat)

Wei SY, Chen PY, Hsieh CC et al. Engineering large and geometrically controlled vascularized nerve tissue in collagen hydrogels to restore large-sized volumetric muscle loss Biomaterials 2023-12-01 [PMID: 37988898] (IHC-P, Mouse)

Korde DS, Humpel C. Spreading of P301S Aggregated Tau Investigated in Organotypic Mouse Brain Slice Cultures Biomolecules 2022-08-23 [PMID: 36139003]

Donnelly CR, Kumari A, Li L et al. Probing the multimodal fungiform papilla: complex peripheral nerve endings of chorda tympani taste and mechanosensitive fibers before and after Hedgehog pathway inhibition Cell and Tissue Research 2022-02-01 [PMID: 34859291]

Lee JI, Talukder MAH, Karuman Z et al. Functional recovery and muscle atrophy in pre-clinical models of peripheral nerve transection and gap-grafting in mice: effects of 4-aminopyridine Neural regeneration research 2023-02-01 [PMID: 35900443] (IHC-WhMt, Mouse)

Kumari A, Li L, Ermilov AN et al. Unique lingual expression of the Hedgehog pathway antagonist Hedgehog-interacting protein in filiform papillae during homeostasis and ectopic expression in fungiform papillae during Hedgehog signaling inhibition Developmental dynamics : an official publication of the American Association of Anatomists 2022-07-01 [PMID: 35048440] (IHC, Mouse)

Manto KM, Govindappa PK, Martinazzi B et al. Erythropoietin-PLGA-PEG as a local treatment to promote functional recovery and neurovascular regeneration after peripheral nerve injury Journal of nanobiotechnology 2022-10-28 [PMID: 36307805] (WB)

Manto KM, Govindappa PK, Parisi D Et al. (4-Aminopyridine)PLGAPEG as a Novel Thermosensitive and Locally Injectable Treatment for Acute Peripheral Nerve Injury ACS Appl Bio Mater 2021-06-18 [PMID: 34142019]

Jiang H, Xu L, Liu W et al. The peripheral and central expression of CGRP and IB4 in chronic pain from MIA-induced TMJOA rats Cell Mol Neurobiol 2021-01-02 [PMID: 33387118]

Ucar B, Stefanova N, Humpel C Spreading of Aggregated alpha-Synuclein in Sagittal Organotypic Mouse Brain Slices Biomolecules 2022-01-19 [PMID: 35204664] (WB, Mouse)

Liu W, Jiang H, Liu X Et Al. Melatonin Abates TMJOA Chronic Pain by MT2R in Trigeminal Ganglion Neurons Journal of dental research 2021-07-27 [PMID: 34315312]

More publications at http://www.novusbio.com/NB300-135

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Products Related to NB300-135

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
H00004744-Q01-10ug	Recombinant Human NF-H GST (N-Term) Protein

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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