

Product Datasheet

NF-H Antibody (9B12) - BSA Free NBP1-05210

Unit Size: 0.1 ml

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

www.novusbio.com



technical@novusbio.com

Publications: 1

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-05210

Updated 9/9/2025 v.20.1

Earn rewards for product
reviews and publications.

Submit a publication at www.novusbio.com/publications

Submit a review at www.novusbio.com/reviews/destination/NBP1-05210



NBP1-05210

NF-H Antibody (9B12) - 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	9B12
Preservative	5mM Sodium Azide
Isotype	IgG2b
Purity	Affinity purified
Buffer	50% PBS, 50% glycerol
Target Molecular Weight	200 kDa

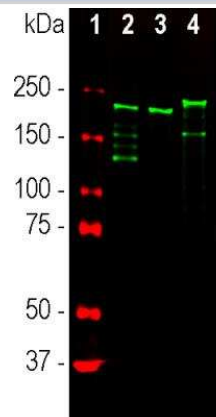
Product Description	
Description	Novus Biologicals Mouse NF-H Antibody (9B12) - BSA Free (NBP1-05210) is a monoclonal antibody validated for use in IHC, WB and ICC/IF. Anti-NF-H Antibody: Cited in 1 publication. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	4744
Gene Symbol	NEFH
Species	Human, Mouse, Rat, Porcine, Bovine, Chicken
Marker	Neuronal Marker
Immunogen	Native NF-H purified from bovine spinal cord, binding to phosphorylated KSP sequences.

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry Free-Floating
Recommended Dilutions	Western Blot 1:10000, Immunohistochemistry 1:1000, Immunocytochemistry/ Immunofluorescence 1:1000, Immunohistochemistry Free-Floating 1:1000
Application Notes	This 200kDa Neurofilament Heavy antibody is useful for Immunocytochemistry/Immunofluorescence, Western Blot, and Immunohistochemistry.

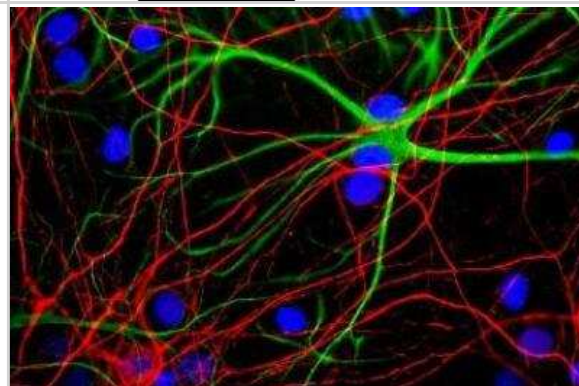


Images

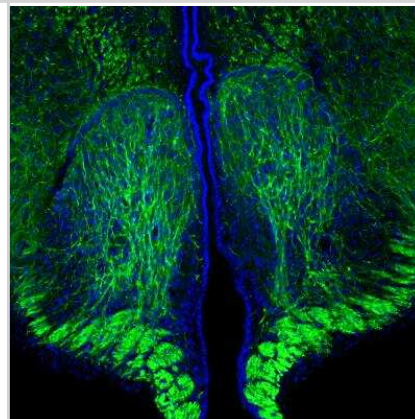
Western Blot: NF-H Antibody (9B12) [NBP1-05210] - Analysis of different tissue lysates using mouse mAb to NF-H, dilution 1:10000 (Green): [1] protein standard, [2] rat spinal cord [3] mouse spinal cord, and [4] cow spinal cord. Strong band at about 200-220kDa corresponds to the major phosphorylated form of the NF-H subunit. Smaller proteolytic fragments of NF-H are also detected in some preparations.



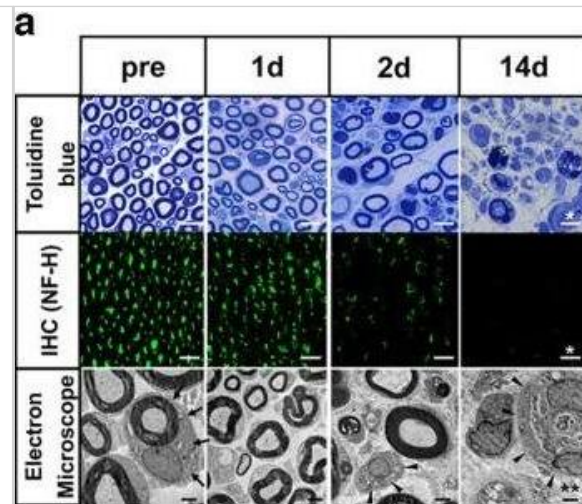
Immunocytochemistry/Immunofluorescence: NF-H Antibody (9B12) [NBP1-05210] - Mixed neuron/glia cultures stained with NBP1-05210 (red) and rabbit GFAP antibody NB300-141 (green). Axonal profiles are stained in red, while astrocytic cells are revealed in green. Nuclei are revealed with a fluorescent DNA stain (blue).



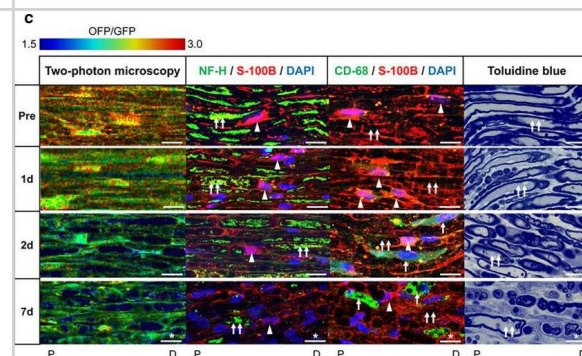
Immunohistochemistry Free-Floating: NF-H Antibody (9B12) [NBP1-05210] - Analysis of a rat brain coronal section of the third ventricle stained with mouse monoclonal antibody to phosphorylated NF-H, dilution 1:5,000 (Green). Hoechst staining of nuclear DNA (Blue). Following transcardial perfusion with 4% paraformaldehyde, brain was post fixed for 24hrs, cut to 45uM, and free-floating sections were stained with above antibody. The antibody is a robust marker of the axons of neuronal cells.



Wallerian degeneration and mitochondrial degeneration in axon for rat's distal nerve stump. a, Representative images of toluidine blue staining, immunohistochemistry (NF-H), electron microscopy, before (pre) and 1, 2, and 14 d after axotomy. Immunohistochemistry was obtained the same results for three individuals. Scale bar, * 10 μm , ** 2 μm . Arrows, myelinated axon; arrowheads, demyelinated Schwann cell. b, Quantification of the myelinated axon. c, d, Quantification of the G-ratio [c: cumulative G-ratio per individual, d: scatter plot, Spearman's rank correlation coefficient and p values showing G-ratio of individual myelinated axons against axon diameter (n = 400)]. The histologic WD was observed significantly from 2 d after axotomy. In axons, before (pre) and 1 and 2 d after axotomy were evaluated, except for after 14 d with completely collapsed axon morphology (n = 4 rat per group). e, Representative images of mitochondrial findings, before (pre) and 1, 2, and 14 d after axotomy. Evaluation was performed in axons and Schwann cells separately. Scale bar, * 200 nm. f, Violin plot of mitochondrial diameter (nm; n = 200). Cumulative mitochondria diameter per individual are also shown (n = 4 rat per group). g, Quantitative analysis of atypical mitochondria (%; n = 4 rat per group). In axons, mitochondria were significantly degenerated from 1 d after axotomy, whereas in Schwann cells, mitochondria were not significantly degenerated until 14 d after axotomy. All histologic evaluations were performed 3 mm distal to the sectional end and corresponding uninjured nerve. Error bars indicate SD; *p < 0.05, ***p < 0.001, one-way ANOVA followed by the Tukey's post hoc test (for comparison of axons and Schwann cells, respectively). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36894321>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



The gradual decrease of mice longitudinal nerve cross section ATP levels in the distal nerve stump, corresponds to histology. a, Representative ATP images in the longitudinal section before (pre) and 1, 2, and 7 d after axotomy. Scale bar, * 1 mm. P, proximal. D, distal. b, The change of ATP levels with measured ROIs (n = 6 mice per group). Distal nerve stump ATP levels were significantly decreased from 1 d after axotomy. Error bars indicate SD; **p < 0.01, ***p < 0.001, one-way ANOVA followed by the Tukey's post hoc test. c, Representative enlarged images of two-photon microscopy, immunohistochemistry (left, NF-H/S-100B/DAPI; right, CD68/S-100B/DAPI), and toluidine blue staining, before (pre) and 1, 2, and 7 d after axotomy. Scale bar, * 10 μm . Arrows, macrophage; arrowheads, Schwann cell; double arrows, axonal soma. The ROI for measuring ATP levels was set at 3 mm distal from the sectional end, the center of the longitudinal cross-section, with a 300 \times 300- μm square (Extended Data Fig. 3-1). The OFP/GFP ratios ranged from 1.5 to 3.0. All histologic evaluations were performed with the same results for three individuals, 3 mm distal from the sectional end, and the corresponding uninjured nerve. ROI, region of interest. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36894321>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Takenaka T, Ohnishi Y, Yamamoto M et al. Glycolytic System in Axons Supplement Decreased ATP Levels after Axotomy of the Peripheral Nerve eNeuro 2023-03-01 [PMID: 36894321] (Immunohistochemistry-Paraffin, Rat)



Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NBP1-05210

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)

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP1-05210

Earn gift cards/discounts by submitting a publication using this product:
www.novusbio.com/publications

