

NF-H Polyclonal Antibody

Catalog NumberPA1-10002

Product data sheet

Details		Species Reactivity	
Size	50 µL	Species reactivity	Bovine, Dog, Horse, Human, Mouse, Pig, Rat
Host/Isotope	Chicken / IgY	Published species	Mouse, Human, Not Applicable
Class	Polyclonal	Tested Applications	
Type	Antibody	Dilution *	
Immunogen	Native NF-H purified from bovine spinal cord.	ELISA (ELISA)	Assay-dependent
Conjugate	Unconjugated	Immunohistochemistry (IHC)	1:20,000
Form	Liquid	Immunohistochemistry (Frozen) (IHC (F))	1:2,000
Concentration	Conc. Not Determined	Immunohistochemistry (Paraffin) (IHC (P))	1:5,000
Storage buffer	PBS	Western Blot (WB)	1:20,000
Contains	0.02% sodium azide	Immunocytochemistry (ICC/IF)	1:20,000
Storage Conditions	4° C	Published Applications	
		Immunohistochemistry (IHC)	See 1 publications below
		Western Blot (WB)	See 3 publications below

\* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

This antibody reacts primarily with the phosphorylated axonal form of NF-H and shows some cross-reactivity with phosphorylated NF-M, which has similar phosphorylation sites to NF-H.

Background/Target Information

Involved in the maintenance of neuronal caliber, neurofilaments are the intermediate filament proteins found specifically in neurons, and are composed predominantly of three major proteins called NF-L, NF-M and NF-H. Like most other intermediate filament proteins (IFPs), the expression of the different neuronal IFPs is both tissue-specific and developmentally regulated. NF-H has an important role in mature axons and is involved in amyotrophic lateral sclerosis (ALS).

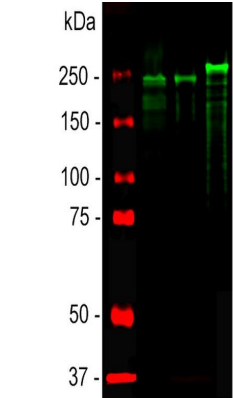
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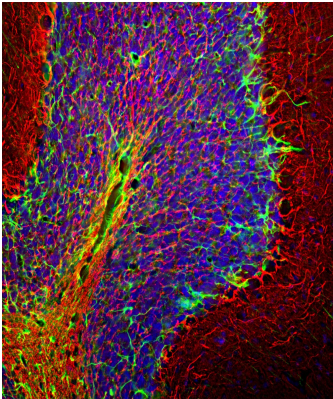
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Product Images For NF-H Polyclonal Antibody



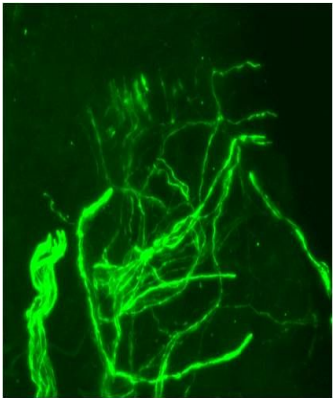
NF-H Antibody (PA1-10002) in WB

Western blot analysis of NF-H in spinal cord lysates using a polyclonal antibody (Product # PA1-10002) at a dilution of 1:20,000 as seen in green. 1) protein standard (red), 2) rat, 3) mouse, and 4) cow spinal cord. Strong band at about 200-220kDa corresponds to the phosphorylated form of NF-H. The protein from different species is known to have different SDS-PAGE molecular weights, with large species generally expressing larger proteins. Smaller proteolytic fragments of NF-H are also detected in spinal cord preparations with this antibody. The antibody does not recognize non-phosphorylated forms of NF-H (not shown).



NF-H Antibody (PA1-10002) in IHC (P)

Immunohistological analysis of NR-H in rat cerebellum. The rat cerebellum section was obtained following transcardial perfusion of the rat with 4% paraformaldehyde, brain was post fixed for 24 hours, and cut to 45µM. Free-floating sections were stained with an NF-H polyclonal antibody (Product # PA1-10002) at a dilution of 1:5,000 as seen in red, and costained with a GFAP polyclonal antibody (Product # PA1-10019) at a dilution of 1:5,000 as seen in green, and with DAPI staining the nuclear DNA in blue. The NF-H antibody labels network of axons of different neurons, while the GFAP antibody stains astrocytes and other glial cells.



NF-H Antibody (PA1-10002) in IHC (F)

Immunohistochemical analysis of human skin stained with Neurofilament, Heavy chain Polyclonal Antibody (Product # PA1-10002). Free-floating, formalin-fixed frozen human skin tissue sections (60 µm) were stained with PA1-10002 (1:2000) followed by a fluorescently-conjugated donkey anti-chicken IgY secondary antibody. Tissues were visualized by confocal microscopy. Data courtesy of the Innovators Program.

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PubMed References For NF-H Polyclonal Antibody

1 Immunohistochemistry References

Species / Dilution	Summary
	PA1-10002 was used in Immunohistochemistry to investigate whether endoplasmic reticulum (ER) stress in dorsal root ganglia (DRG) contributes to pain hypersensitivity in the experimental autoimmune encephalomyelitis (EAE) mouse model of multiple sclerosis.
Human / 1:5000	FASEB journal : official publication of the Federation of American Societies for Experimental Biology ( 2020; 34: 12577) <b>"Endoplasmic reticulum stress in the dorsal root ganglia regulates large-conductance potassium channels and contributes to pain in a model of multiple sclerosis."</b> Author(s):Yousuf MS,Samtleben S,Lamothe SM,Friedman TN,Catuneanu A,Thorburn K,Desai M,Tenorio G,Schenk GJ,Ballanyi K,Kurata HT,Simmen T,Kerr BJ PubMed Article URL: <a href="http://dx.doi.org/10.1096/fj.202001163R">http://dx.doi.org/10.1096/fj.202001163R</a>

3 Western Blot References

Species / Dilution	Summary
	PA1-10002 was used in Western Blotting to study the immune mediated pathophysiology of pain in multiple sclerosis.
Mouse / 1:5000	eNeuro ( 2020; 6: ) <b>"Sensory Neurons of the Dorsal Root Ganglia Become Hyperexcitable in a T-Cell-Mediated MOG-EAE Model of Multiple Sclerosis."</b> Author(s):Yousuf MS,Noh MC,Friedman TN,Zubkow K,Johnson JC,Tenorio G,Kurata HT,Smith PA,Kerr BJ PubMed Article URL: <a href="http://dx.doi.org/10.1523/ENEURO.0024-19.2019">http://dx.doi.org/10.1523/ENEURO.0024-19.2019</a>
	PA1-10002 was used in Immunohistochemistry to investigate whether endoplasmic reticulum (ER) stress in dorsal root ganglia (DRG) contributes to pain hypersensitivity in the experimental autoimmune encephalomyelitis (EAE) mouse model of multiple sclerosis.
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	PA1-10002 was used in Western Blotting to report on the expression levels and patterns of PAD2, PAD4 and retinal citrullination in the murine retina with age.
Mouse / Not Cited	Investigative ophthalmology & visual science ( 2018; 59: 3808) <b>"Murine Retinal Citrullination Declines With Age and is Mainly Dependent on Peptidyl Arginine Deiminase 4 (PAD4)."</b> Author(s):Hollingsworth TJ,Radic MZ,Beranova-Giorgianni S,Giorgianni F,Wang Y,Iannaccone A PubMed Article URL: <a href="http://dx.doi.org/10.1167/iov.18-24118">http://dx.doi.org/10.1167/iov.18-24118</a>

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