

Anti-Neurofilament M (NF-M) Antibody



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Catalog #: 1455-NFM

Size: 100 µl

Cite this Antibody: PhosphoSolutions Cat# 1455-NFM, RRID:AB_2492164

Host	Applications	Species Tested	Species Assumed*	Molecular Weight
Chicken	WB 1:5000 ICC 1:1000 IHC 1:1000	B, Ch, H, M, P, R		~145 kDa

Product Description: Chicken polyclonal antibody.

Biological Significance: Neurofilaments are the 10 nm or intermediate filament proteins found specifically in neurons, and are composed predominantly of three major proteins called NF-L, NF-M and NF-H (Harris et al., 1991). NF-M is the neurofilament middle or medium molecular weight polypeptide and runs on SDS-PAGE gels at 145-160 kDa, with some variability across species boundaries. Antibodies to NF-M are useful for identifying neuronal cells and their processes in tissue sections and in tissue culture. NF-M antibodies can also be useful to visualize neurofilament accumulations seen in many neurological diseases, such as Amyotrophic Lateral Sclerosis (Lou Gehrig's disease) and Alzheimer's disease (Hu et al., 2002).

Antigen: Recombinant fusion protein containing the extreme C-terminus of rat NF-M expressed in and purified from *E. coli*.

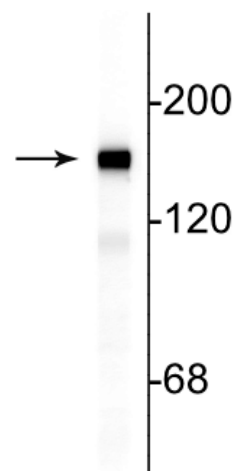
Antibody Specificity: Specific for endogenous levels of the ~145 kDa Neurofilament M protein.

Purification Method: Total IgY fraction.

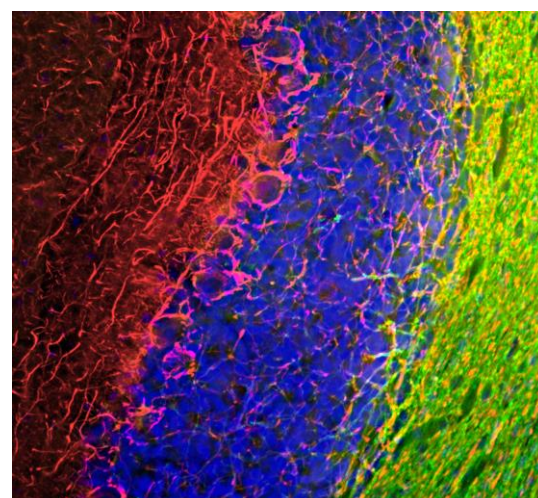
Quality Control Tests: Western blots performed on each lot.

Packaging: 100 µl liquid containing 10 mM sodium azide.

Storage and Stability: Shipped on blue ice. Recommended that the antibody be aliquoted into smaller working volumes (10-30 uL/vial depending on usage) upon arrival and stored long term at -20° C or -80° C, while keeping a working aliquot stored at 4° C for short term. Avoid freeze/thaw cycles. Stable for at least 1 year.



Western blot of rat cortical lysate showing specific immunolabeling of the ~145 kDa NF-M protein.



Immunofluorescence of a section of rat cerebellum labeled with anti-Neurofilament-M (cat #1455-NFM, 1:1000, red) and anti-CNP(green). The anti-NFM labels the network of axons of basket neurons and other neurons. The blue is DAPI staining of nuclear DNA.

General References:

Harris, J., Ayyub, C. and Shaw G. (1991) A molecular dissection of the carboxyterminal tails of the major neurofilament subunits NF-M and NF-H. *J Neurosci Res* 30:47-62.

Hu YY, He SS, Wang XC, Duan QH, Khatoon S, Igbal K, Grundke-Igbal I, Wang JZ (2002) Elevated levels of phosphorylated neurofilament proteins in cerebrospinal fluid of Alzheimer disease patients. *Neurosci Lett* 320(3):156-60.

Application Key: **WB** = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation

Species Reactivity Key: **All**-All Species **A**-Avian **Amp**-Amphibian **Ar**-*Arabidopsis* **B**-Bovine **C**-Canine **Ch**-Chicken **D**-*Drosophila*
GP-Guinea Pig **H**-Human **Ha**-Hamster **M**-Mouse **NHP**- Non-human primate **P**-Pig **R**-Rat **S**-Sheep **X**-*Xenopus* **Z**-Zebrafish

*Species assumed based on 100% homology with sequence used as antigen

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