

ARG52351 anti-Neurofilament NF-M antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Chicken Polyclonal antibody recognizes Neurofilament NF-M
Tested Reactivity	Ms, Rat
Predict Reactivity	Hu, Chk, Cow, Hrs, Pig
Tested Application	ICC/IF, IHC-Fr, WB
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Target Name	Neurofilament NF-M
Species	Rat
Immunogen	Preparation containing the extreme C-terminus expressed in and purified from E. Coli
Conjugation	Un-conjugated
Alternate Names	Neurofilament medium polypeptide; Neurofilament 3; Neurofilament triplet M protein; NFM; NF-M; 160 kDa neurofilament protein; NEF3

Application Instructions

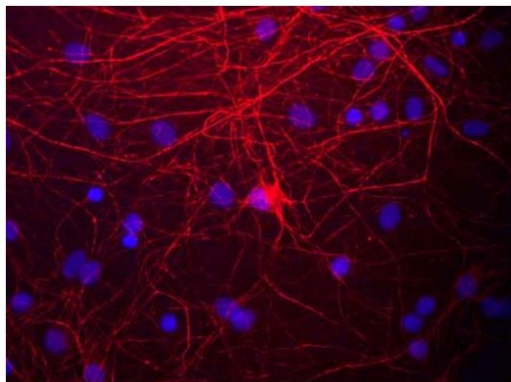
Application table	Application	Dilution
	ICC/IF	1:500 - 1:1000
	IHC-Fr	1:500 - 1:1000
	WB	1:2000 - 1:5000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Rat cortex	
Observed Size	~ 145 kDa	

Properties

Form	Liquid
Purification	Total IgY fraction
Buffer	Total IgY fraction in PBS and 10 mM Sodium azide
Preservative	10 mM Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

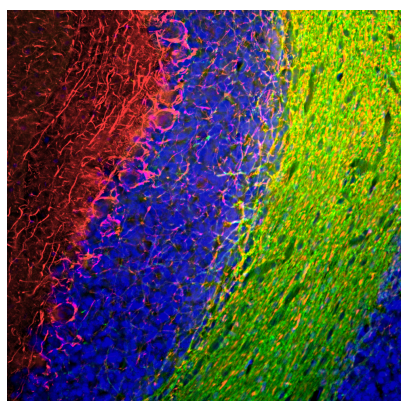
Bioinformation

Database links	GeneID: 18040 Mouse GeneID: 24588 Rat Swiss-port # P08553 Mouse Swiss-port # P12839 Rat
Gene Symbol	Nefm
Gene Full Name	neurofilament, medium polypeptide
Background	<p>Neurofilaments are type IV intermediate filament heteropolymers composed of light, medium, and heavy chains. Neurofilaments comprise the axoskeleton and functionally maintain neuronal caliber. They may also play a role in intracellular transport to axons and dendrites. This gene encodes the medium neurofilament protein. This protein is commonly used as a biomarker of neuronal damage. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Oct 2008]</p>
Function	Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in the maintenance of neuronal caliber. [UniProt]
Highlight	<p>Related Antibody Duos and Panels: ARG30145 Intermediate Neurofilament Antibody Panel (NF-L, NF-M,NF-H) Related products: Neurofilament antibodies: Neurofilament ELISA Kits: Neurofilament Duos / Panels: Anti-Chicken IgY secondary antibodies: Related news: Neuronal Development Marker</p>
Research Area	Controls and Markers antibody; Developmental Biology antibody; Neuroscience antibody; Signaling Transduction antibody; Intermediate Neurofilament antibody
Calculated Mw	102 kDa
PTM	<p>There are a number of repeats of the tripeptide K-S-P, NFM is phosphorylated on a number of the serines in this motif. It is thought that phosphorylation of NFM results in the formation of interfilament cross bridges that are important in the maintenance of axonal caliber.</p> <p>Phosphorylation seems to play a major role in the functioning of the larger neurofilament polypeptides (NF-M and NF-H), the levels of phosphorylation being altered developmentally and coincidentally with a change in the neurofilament function.</p> <p>Phosphorylated in the head and rod regions by the PKC kinase PKN1, leading to the inhibition of polymerization.</p>



ARG52351 anti-Neurofilament NF-M antibody ICC/IF image

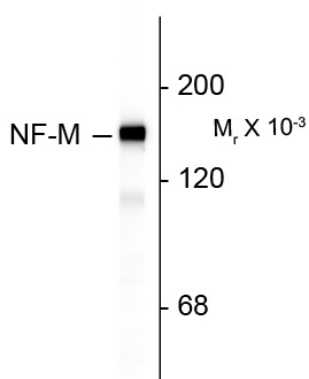
Immunofluorescence: Cultured rat neurons and glia stained with ARG52351 anti-Neurofilament NF-M antibody (red).



ARG52351 anti-Neurofilament NF-M antibody IHC-Fr image

Immunohistochemistry: Frozen section of Rat cerebellum tissue stained with ARG52351 anti-Neurofilament NF-M antibody (red) at 1:1000 dilution, and co-stained with [ARG11063](#) anti-CNPase antibody [1H10] (green) at 1:500 dilution. DAPI (blue) for nuclear staining. (Sample preparation: Following transcardial perfusion of rat with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45 μ M, and free-floating sections were stained with the above antibodies.)

The NF-M antibody labels the network of axons of basket neurons and other neurons. The CNPase antibody stains oligodendrocytes, cells that create myelin sheaths around axons.



ARG52351 anti-Neurofilament NF-M antibody WB image

Western blot: Rat cortex lysate stained with ARG52351 anti-Neurofilament NF-M antibody showing specific immunolabeling of the ~ 145 kDa NF-M protein.