

ARG63075 anti-Neurofilament NF-H antibody [NF-01]

Package: 100 µg, 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [NF-01] recognizes Neurofilament NF-H
Tested Reactivity	Hu, Ms, Rat, Mamm
Tested Application	ICC/IF, IHC-P, WB
Specificity	The clone NF-01 recognizes a phosphorylated epitope on heavy neurofilament protein (210 kDa) of various species. Antibodies to the various neurofilament subunits are very useful cell type markers since the proteins are among the most abundant of the nervous system, are expressed only in neurons and are biochemically very stable.
Host	Mouse
Clonality	Monoclonal
Clone	NF-01
Isotype	IgG1
Target Name	Neurofilament NF-H
Species	Pig
Immunogen	Pellet of porcine brain cold-stable proteins after depolymerization of microtubules.
Conjugation	Un-conjugated
Alternate Names	Neurofilament heavy polypeptide; 200 kDa neurofilament protein; NF-H; Neurofilament triplet H protein; NFH

Application Instructions

Application table	Application	Dilution
	ICC/IF	Assay-dependent
	IHC-P	5 - 10 µg/ml
	WB	1 - 2 µg/ml
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

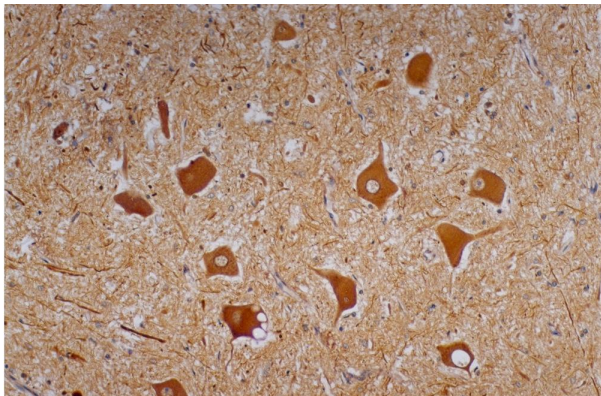
Properties

Form	Liquid
Purification	Purified from ascites by protein-A affinity chromatography.
Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide

Concentration	1 mg/ml
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.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 380684 Mouse GeneID: 4744 Human Swiss-port # P12036 Human Swiss-port # P19246 Mouse
Background	<p>Neurofilaments (NFs) are a type of intermediate filament (IF) expressed almost exclusively in neuronal cells, and in those cells most prominently in large axons. NFs in most vertebrates are composed of three different polypeptide chains with different molecular weights – neurofilament heavy protein (NF-H), medium (NF-M) and light protein (NF-L), which share sequence and structural similarity in a coiled-coil core domain, but differ in the length and sequence of their N-termini and more dramatically of their C-termini which in the case of NF-M and NF-H form the flexible extensions that link NFs to each other and to other elements in the cytoplasm. The protein segment on the C-terminal side of the human NF-H rod is uniquely long (more than 600 amino acids) compared to other IF proteins and is highly charged (> 24 % Glu, > 25 % Lys), rich in proline (> 12 %) and impoverished in cysteine, methionine and aromatic amino acids. Its most remarkable feature is a repetitive sequence that covers more than half its length and includes the sequence motif Lys-Ser-Pro (KSP) greater than 40 times. Plasma neurofilament heavy chain level has been proposed as a marker of axonal injury and clinical use of its degeneration and loss has been suggested as a biomarker of several neurodegenerative diseases.</p>
Highlight	<p>Related Antibody Duos and Panels: ARG30011 Neurofilament Antibody Duo (NF-H, NF-L) Related products: Neurofilament antibodies: Neurofilament ELISA Kits: Neurofilament Duos / Panels: Anti-Mouse IgG secondary antibodies:</p>
Research Area	Neuroscience antibody; Signaling Transduction antibody; Neurofilament antibody; Intermediate Neurofilament antibody
Calculated Mw	112 kDa
PTM	<p>There are a number of repeats of the tripeptide K-S-P, NFH is phosphorylated on a number of the serines in this motif. It is thought that phosphorylation of NFH 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>



ARG63075 anti-Neurofilament NF-H antibody [NF-01] IHC-P image

Immunohistochemistry: Paraffin-embedded Human cerebellum stained with ARG63075 anti-Neurofilament NF-H antibody [NF-01].