

ARG23209 anti-Neurofilament NF-H antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Neurofilament NF-H Rabbit anti Bovine Neurofilament H 200 kDa antibody recognizes bovine intermediate 200 kDa Neurofilament H (NFH), a 1026 amino acid ~200 kDa protein involved in the maintenance of neuronal integrity. Neurofilaments are a major component of the cellular cytoskeleton, acting as the most abundant support for the axon cytoplasm. They exist as three neurofilament proteins: 68/70 kDa (NFL) 160 kDa (NFM) and 200 kDa (NFH), which are expressed in both the central and peripheral nervous systems. Although typically expressed by neurons, neurofilaments are also expressed by neuroblastomas, neuromas, gangliogliomas, ganglioneuromas, and ganglioneuroblastomas, as well as paragangliomas, carcinoids, skin neuroendocrine carcinomas, and oat cell carcinomas of the lung (Lehto et al. 1983). Defects in NFH are responsible for susceptibility to the neurodegenerative disorder amyotrophic lateral sclerosis (ALS) which affects upper and lower motor neurons, and results in fatal paralysis (Mendonça et al. 2005).
Tested Reactivity	Hu, Ms, Rat, Bov
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Neurofilament NF-H
Species	Bovine
Immunogen	GST-tagged Bovine NFH recombinant protein.
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
	IHC-P	1 µg/ml
	WB	0.1 µg/ml
Application Note	IHC-P: Antigen Retrieval: Boil tissue section in Sodium citrate buffer (pH 6.0). WB: This detects a band of approximately 200 kDa in Bovine cerebellum tissue lysates. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Purified by affinity chromatography.

Buffer	TRIS-glycine buffered saline, NaCl and 0.05% Sodium azide.
Preservative	0.05% 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

Gene Symbol	NEFH
Gene Full Name	neurofilament, heavy polypeptide
Background	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 heavy neurofilament protein. This protein is commonly used as a biomarker of neuronal damage and susceptibility to amyotrophic lateral sclerosis (ALS) has been associated with mutations in this gene. [provided by RefSeq, Oct 2008]
Function	Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in the maintenance of neuronal caliber. NF-H has an important function in mature axons that is not subserved by the two smaller NF proteins. [UniProt]
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. [UniProt]</p>