


Product datasheet

Anti-68kDa Neurofilament/NF-L antibody ab9035

★★★★★ [2 Abreviews](#) [4 References](#) [4 Images](#)

Overview

Product name	Anti-68kDa Neurofilament/NF-L antibody
Description	Rabbit polyclonal to 68kDa Neurofilament/NF-L
Host species	Rabbit
Specificity	Specifically recognizes the light neurofilament subunit (~68 kDa).
Tested applications	Suitable for: WB, ICC/IF, IHC-FrFI
Species reactivity	Reacts with: Mouse, Rat Predicted to work with: Bird, Mammals 
Immunogen	Full length native protein (purified) corresponding to Pig 68kDa Neurofilament/NF-L. prepared from spinal cords by the method of Delacourte et al. and this cytoskeletal material was dissolved in 6M urea. Purified by ion exchange chromatography, then preparative gel electrophoresis.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Purity	Whole antiserum
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab9035 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/5000.
ICC/IF	★★★★★ (1)	1/500.
IHC-FrFI		1/5000.

Target

Function

Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in the maintenance of neuronal caliber.

Involvement in disease

Defects in NEFL are the cause of Charcot-Marie-Tooth disease type 1F (CMT1F) [MIM:607734]. CMT1F is a form of Charcot-Marie-Tooth disease, the most common inherited disorder of the peripheral nervous system. Charcot-Marie-Tooth disease is classified in two main groups on the basis of electrophysiologic properties and histopathology: primary peripheral demyelinating neuropathy or CMT1, and primary peripheral axonal neuropathy or CMT2. Neuropathies of the CMT1 group are characterized by severely reduced nerve conduction velocities (less than 38 m/sec), segmental demyelination and remyelination with onion bulb formations on nerve biopsy, slowly progressive distal muscle atrophy and weakness, absent deep tendon reflexes, and hollow feet. CMT1F is characterized by onset in infancy or childhood (range 1 to 13 years). Defects in NEFL are the cause of Charcot-Marie-Tooth disease type 2E (CMT2E) [MIM:607684]. CMT2E is an autosomal dominant form of Charcot-Marie-Tooth disease type 2. Neuropathies of the CMT2 group are characterized by signs of axonal regeneration in the absence of obvious myelin alterations, normal or slightly reduced nerve conduction velocities, and progressive distal muscle weakness and atrophy.

Sequence similarities

Belongs to the intermediate filament family.

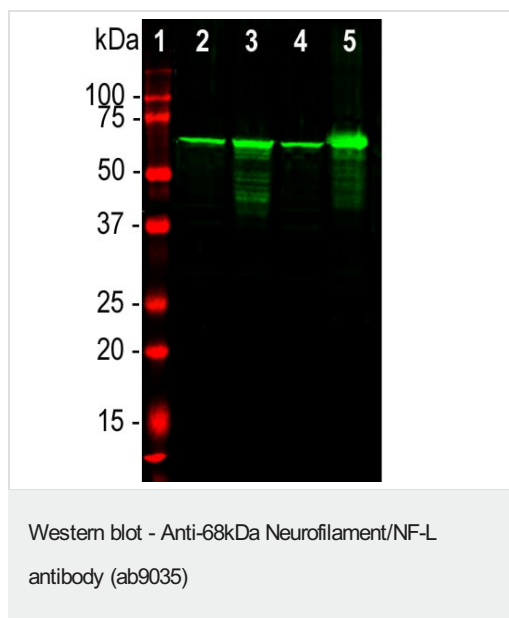
Domain

The extra mass and high charge density that distinguish the neurofilament proteins from all other intermediate filament proteins are due to the tailpiece extensions. This region may form a charged scaffolding structure suitable for interaction with other neuronal components or ions.

Post-translational modifications

O-glycosylated.
Phosphorylated in the Head and Rod regions by the PKC kinase PKN1, leading to inhibit polymerization.

Images



Lane 1 : Protein ladder

Lanes 2-5 : Anti-68kDa Neurofilament/NF-L antibody (ab9035) at 1/20000 dilution

Lane 2 : Rat brain

Lane 3 : Rat spinal cord

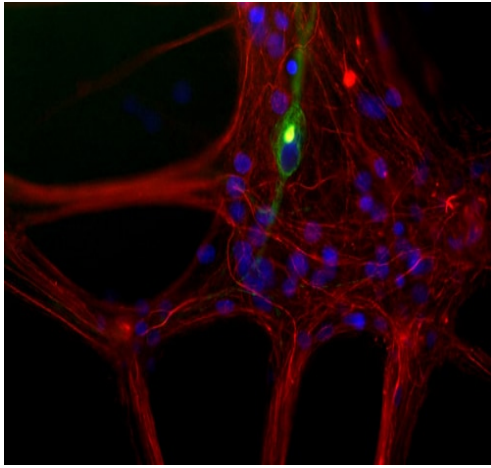
Lane 4 : Mouse brain

Lane 5 : Mouse spinal cord

Observed band size: 68 kDa

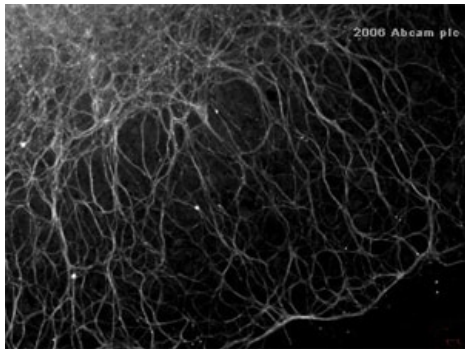


Immunohistochemistry (Free Floating) analysis of mouse cerebellum staining 68kDa Neurofilament/NF-L with ab9035 (1/5000) in red. Costained with chicken pAb to MBP (1/5000) in green and DAPI in blue. Following transcardial perfusion of mouse with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45 μ M, and free-floating sections were stained with above antibodies.



Immunocytochemistry/ Immunofluorescence - Anti-68kDa Neurofilament/NF-L antibody (ab9035)

ab9035 staining anti 68kDa Neurofilament/NF-L in mixed neuron/glia cultures from newborn rat brain by ICC/IF (Immunocytochemistry/immunofluorescence). Samples were incubated with primary antibody (1/500) (red) and co-stained with **ab4573** for anti Peripherin (green).



Immunocytochemistry/ Immunofluorescence - Anti-68kDa Neurofilament/NF-L antibody (ab9035)

This image is courtesy of an Abreview submitted by Dr Luis Craveiro

ab9035 at a 1/300 dilution staining rat hippocampal organotypic slice cultures by ICC/IF. The primary antibody was incubated with the cells for 120 hours (this time allows for the antibody to penetrate a layer of glial cells that grows while the slice is in culture). Bound antibody is detected using a Cy3 conjugated Indocarbocyanine.

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