abcam

Product datasheet

Anti-68kDa Neurofilament/NF-L antibody [EP675Y] ab52989

Recombinant   RabMAb®

3 References   **2 Images**

Overview

Product name	Anti-68kDa Neurofilament/NF-L antibody [EP675Y]
Description	Rabbit monoclonal [EP675Y] to 68kDa Neurofilament/NF-L
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP **Unsuitable for:** ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human, rat, and mouse brain tissue lysates.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP675Y
Isotype	IgG

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab52989 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		1/1000. Detects a band of approximately 68 kDa (predicted molecular weight: 61 kDa).
IP		1/20.

Application notes   Is unsuitable for ICC/IF.

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

Immunoprecipitation - Anti-68kDa Neurofilament/NF-L antibody [EP675Y] (ab52989)

Purified ab52989 at 1:20 dilution (2µg) immunoprecipitating 68kDa Neurofilament/NF-L in Human brain lysate.

Lane 1 (input): Human brain lysate 10µg

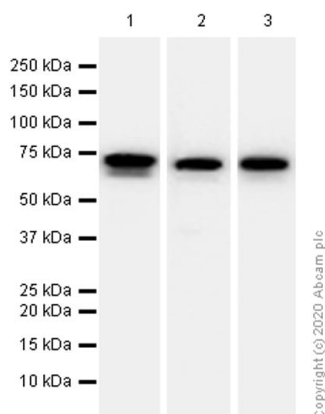Lane 2 (+): ab52989 + Human brain lysate.

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab52989 in Human brain lysate.

VeriBlot for IP Detection Reagent (HRP)(**ab131366**) (1:1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

Observed band size: 68 kDa

Western blot - Anti-68kDa Neurofilament/NF-L antibody [EP675Y] (ab52989)

All lanes : Anti-68kDa Neurofilament/NF-L antibody [EP675Y] (ab52989) at 1/1000 dilution (Purified)

Lane 1 : Human brain lysate

Lane 2 : Mouse brain lysate

Lane 3 : Rat brain lysate

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 61 kDa
Observed band size: 68 kDa

Blocking buffer: 5% NFDM/TBST

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