

Anti-NEFH Antibody (Monoclonal, N52)

Catalog Number: MA1071

About Nefh

Neurofilaments are composed of 3 neuron-specific proteins with apparent molecular masses of 68 kD(NFL), 125 kD(NFM), and 200 kD(NFH) on SDS-gel electrophoresis. Genomic clones for the largest human neurofilament protein(NF-H) were isolated, the intron/exon boundaries mapped and the entire protein-coding regions(exons) sequenced. mutations in neurofilaments have been linked to some forms of Charcot-Marie-Tooth disease(CMT).

Overview

Product Name	Anti-NEFH Antibody (Monoclonal, N52)
Reactive Species	Human, Mouse, Rat
Description	Mouse IgG monoclonal antibody for NEFH, neurofilament, heavy polypeptide (NEFH) detection. Tested with WB, IHC-P, IHC-F in Human;mouse;rat. No cross reactivity with other proteins.
Application	IHC, WB
Clonality	Monoclonal N52
Formulation	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg Na ₃ N as preservative.
Storage Instructions	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.
Host	Mouse
Uniprot ID	P16884

Technical Details

Immunogen	C-terminal segment of enzymatically dephosphorylated pig Neurofilament 200.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit

	(SV0001-1) for IHC(P) and IHC(F).
Cross Reactivity	No cross reactivity with other proteins
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Add 1ml of PBS buffer will yield a concentration of 100ug/ml.
Purification	Ascites
Suggested Dilutions	Immunohistochemistry(Paraffin-embedded Section), 1-2µg/ml, Human, mouse, rat, By Heat Immunohistochemistry(Frozen Section), 1-2µg/ml, Human, mouse, rat, - Western blot, 0.5ml, Human, mouse, rat For protocols please visit https://www.bosterbio.com/protocol-and-troubleshooting/

Anti-NEFH Antibody (Monoclonal, N52) (MA1071) Images

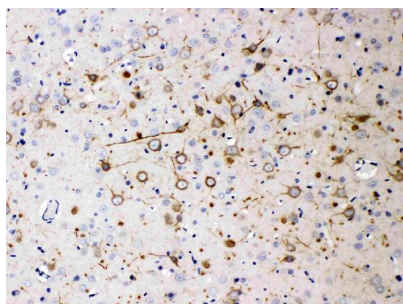


Figure 1. IHC analysis of NEFH using anti-NEFH antibody (MA1071).

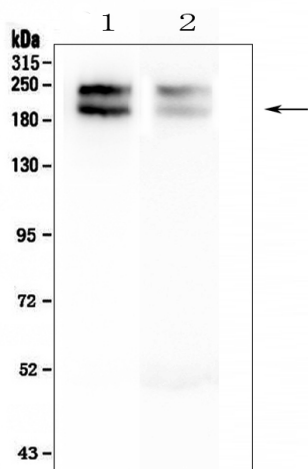
NEFH was detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml mouse anti-NEFH Antibody (MA1071) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

Figure 2. Western blot analysis of NEFH using anti-NEFH antibody (MA1071).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: rat brain tissue lysates,
Lane 2: mouse brain tissue lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-NEFH antigen affinity purified monoclonal antibody (Catalog



MA1071)) at 0.5 μ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for NEFH at approximately 200KD. The expected band size for NEFH is at 112KD.

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