

Anti-NF68 Nefl Antibody (Monoclonal, NR4)

Catalog Number: MA1070

About Nefl

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. And they have a role in the maturation of regenerating myelinated axons. Neurofilament 68 (NF68), also called Neurofilament Protein, Light Chain (NFL). It is one of the most abundant cytoskeletal components of the neuron. Mutations in this gene were reported as a cause for autosomal dominant Charcot-Marie-Tooth type 2E (CMT2E) linked to chromosome 8p21. NFL was identified repeatedly in both screenings and found to interact with Myotubularin-related 2 gene, MTMR2 in both Schwann cells and neurons.

Overview

Product Name	Anti-NF68 Nefl Antibody (Monoclonal, NR4)
Reactive Species	Human, Mouse, Pig, Rat
Description	Boster Bio Anti-NF68 Nefl Antibody (Monoclonal, NR4) catalog # MA1070. Tested in IHC, IHC-F, WB applications. This antibody reacts with Human, Mouse, Pig, Rat.
Application	IHC, IHC-F, WB
Clonality	Monoclonal NR4
Formulation	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN ₃ as preservative.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Mouse
Uniprot ID	P19527

Technical Details

Immunogen	Pig spinal cord.
Predicted Reactive Species	Monkey
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	Adding 1 ml of PBS buffer will yield a concentration of 100 ug/ml.

Purification	Ascites
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 2-4ug/ml, Human, mouse, pig, rat, By Heat Immunohistochemistry (Frozen Section), 2-4ug/ml, Human, mouse, pig, rat, - Western blot, 1-2ug/ml, Human, mouse, pig, rat

Anti-NF68 Nefl Antibody (Monoclonal, NR4) (MA1070) Images

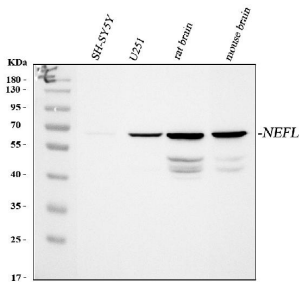


Figure 1. Western blot analysis of NF68 using anti-NF68 antibody (MA1070).

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 30 ug of sample under reducing conditions.

Lane 1: human SH-SY5Y whole cell lysates,

Lane 2: human U251 whole cell lysates,

Lane 3: rat brain tissue lysates,

Lane 4: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-NF68 antigen affinity purified monoclonal antibody (Catalog # MA1070) at 1 ug/mL overnight at 4°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 NF68 at approximately 72 kDa. The expected band size for NF68 is at 62 kDa.

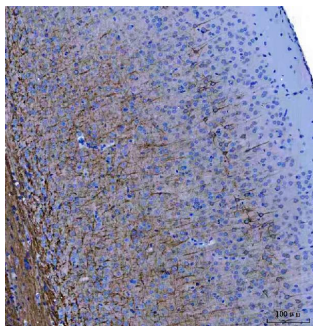


Figure 2. IHC analysis of NF68 using anti-NF68 antibody (MA1070).

NF68 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-NF68 Antibody (MA1070) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

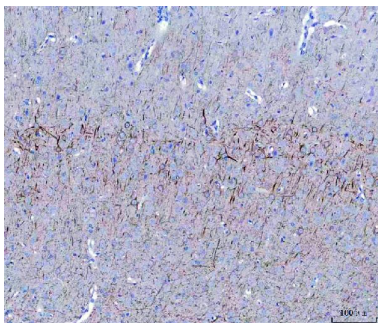


Figure 3. IHC analysis of NF68 using anti-NF68 antibody (MA1070).

NF68 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-NF68 Antibody (MA1070) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

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