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Anti-Nefh Antibody Picoband™

Catalog Number: A05307

About Nefh

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.

Overview

Product Name	Anti-Nefh Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Nefh Antibody Picoband™ catalog # A05307. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Mouse, Rat.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
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	Rabbit
Uniprot ID	P19246

Technical Details

Immunogen	E.coli-derived mouse Nefh recombinant protein (Position: Y109-E466).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this

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	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: Western blot, 0.1-0.25ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Mouse, Rat Flow Cytometry, 1-3ug/1x10^6 cells, Mouse Direct ELISA, 0.1-0.5ug/ml, Mouse

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Anti-Nefh Antibody Picoband™ (A05307) Images

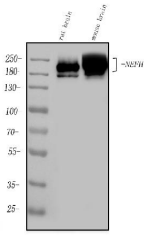

Figure 1. Western blot analysis of Nefh using anti-Nefh antibody (A05307).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat brain tissue lysates,
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 rabbit anti-Nefh antigen affinity purified polyclonal antibody (Catalog # A05307) at 0.25 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-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Nefh at approximately 117-220KD. The expected band size for Nefh is at 117KD.

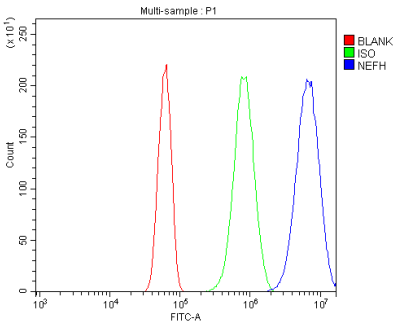

Figure 2. Flow Cytometry analysis of Neuro-2a cells using anti-Nefh antibody (A05307).
Overlay histogram showing Neuro-2a cells stained with A05307 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Nefh Antibody (A05307, 1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

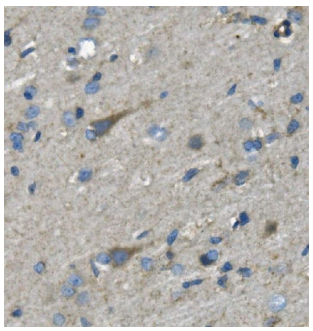

Figure 3. IHC analysis of Nefh using anti-Nefh antibody (A05307).
Nefh was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Nefh Antibody (A05307) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of Nefh using anti-Nefh antibody (A05307).
Nefh was detected in paraffin-embedded section of mouse spinal cord tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution).

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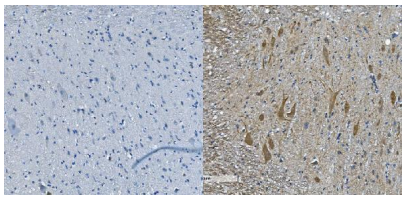

The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Nefh Antibody (A05307) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

17 Publications Citing This Product

1. PubMed ID: 10.3109/09273948.2013.806989, Improved Retinal Ganglion Cell Survival through Retinal Microglia Suppression by a Chinese Herb Extract, Triptolide, in the DBA/2J Mouse Model of Glaucoma

2. PubMed ID: PMID:31966489, Gene silencing NMII promotes axonal regeneration against contusive spinal cord injury in rats

3. PubMed ID: 10.12659/MSM.900893, Changes in the Expression of miR-34a and its Target Genes Following Spinal Cord Injury In Rats

Visit bosterbio.com/anti-nefh-picoband-trade-antibody-a05307-boster.html to see all 17 publications.

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