

Rabbit anti-Mouse, Rat Nefh Polyclonal Antibody | anti-Nefh antibody

Anti-Nefh Antibody

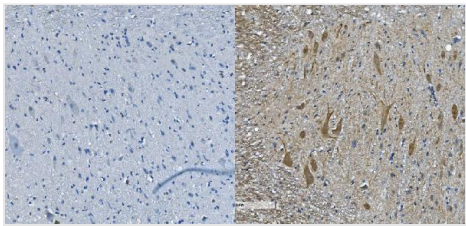
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125747	Rabbit	Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

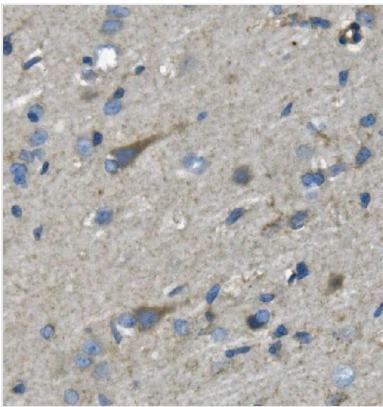
Nefh; Polyclonal Antibody; Anti-Nefh Antibody; Kiaa0845; Nfh; Neurofilament heavy polypeptide; NF-H; 200 kDa neurofilament protein; Neurofilament triplet H protein; neurofilament; heavy polypeptide; anti-Nefh antibody

PRODUCT SPECIFICATIONS

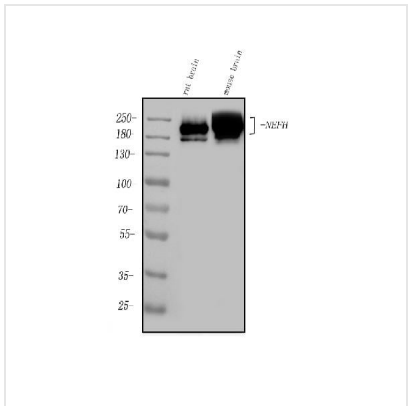
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for Nefh detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Applicable Applications for anti-Nefh antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived mouse Nefh recombinant protein (Position: Y109-E466).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



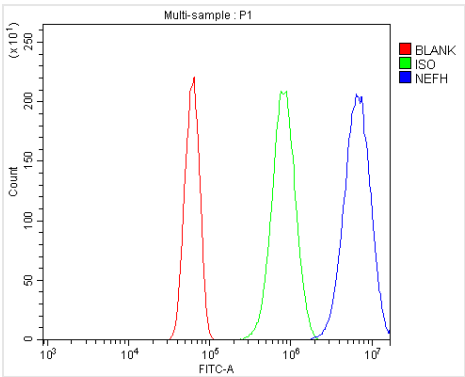
IHC (Immunohistochemistry)
Figure 4. IHC analysis of Nefh using anti-Nefh antibody (AAA125747).Nefh was detected in paraffin-embedded section of mouse spinal cord tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-Nefh Antibody (AAA125747) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)
Figure 3. IHC analysis of Nefh using anti-Nefh antibody (AAA125747).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 2μg/ml rabbit anti-Nefh Antibody (AAA125747) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)
Figure 1. Western blot analysis of Nefh using anti-Nefh antibody (AAA125747).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 lysatesLane 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 # AAA125747) at 0. 25 μg/mL overnight at 4 degree 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 with Tanon 5200 system. A specific band was detected for Nefh at approximately 117-220KD. The expected band size for Nefh is at 117KD.



FCM/FACS (Flow Cytometry)
Figure 2. Flow Cytometry analysis of Neuro-2a cells using anti-Nefh antibody (AAA125747).Overlay histogram showing Neuro-2a cells stained with AAA125747 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Nefh Antibody (AAA125747, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL INFORMATION

Related Product Information for anti-Nefh antibody

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.

References	1. Lees, J. F., Shneidman, P. S., Skuntz, S. F., Carden, M. J., Lazzarini, R. A. The structure and organization of the human heavy neurofilament subunit (NF-H) and the gene encoding it. EMBO J. 7: 1947-1955, 1988. 2. Mattei, M. -G., Dautigny, A., Pham-Dinh, D., Passage, E., Mattei, J. -F., Jolles, P. The gene encoding the large human neurofilament subunit (NF-H) maps to the q121-q131 region on human chromosome 22. Hum. Genet. 80: 293-295, 1988. 3. Rao, M. V., Houseweart, M. K., Williamson, T. L., Crawford, T. O., Folmer, J., Cleveland, D. W. Neurofilament-dependent radial growth of motor axons and axonal organization of neurofilaments does not require the neurofilament heavy subunit (NF-H) or its phosphorylation. J. Cell Biol. 143: 171-181, 1998.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	200022
NCBI GeneID	380684
UniProt Accession #	P19246; Q5SVF6; Q61959; A1E2H9
Molecular Weight	116,994 Da
NCBI Official Full Name	neurofilament protein
NCBI Official Synonym Full Names	neurofilament, heavy polypeptide
NCBI Official Symbol	Nefh
NCBI Official Synonym Symbols	Nfh; NF-H; NF200; mKIAA0845
NCBI Protein Information	neurofilament heavy polypeptide
UniProt Protein Name	Neurofilament heavy polypeptide
UniProt Gene Name	Nefh
UniProt Synonym Gene Names	Kiaa0845; Nfh; NF-H

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.