

Rabbit NEFL/NF-L Polyclonal Antibody | anti-NEFL antibody

Anti-NEFL/NF-L Antibody

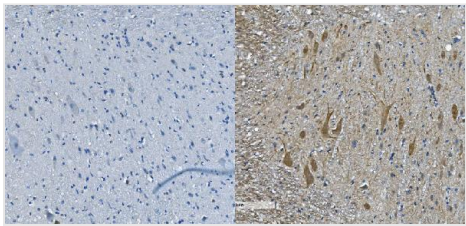
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125655	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

NEFL/NF-L; Polyclonal Antibody; Anti-NEFL/NF-L Antibody; NEFL; NF68; NFL; Neurofilament light polypeptide; NF-L; 68 kDa neurofilament protein; Neurofilament triplet L protein; neurofilament light; anti-NEFL antibody

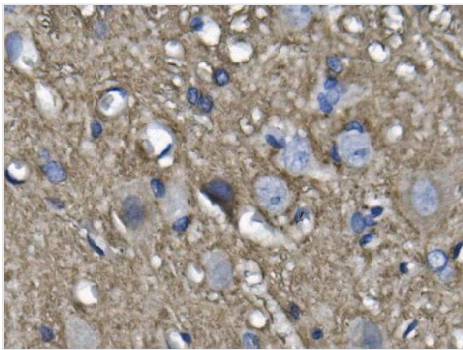
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for NEFL/NF-L 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-NEFL antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human NEFL/NF-L recombinant protein (Position: F4-A463).
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.



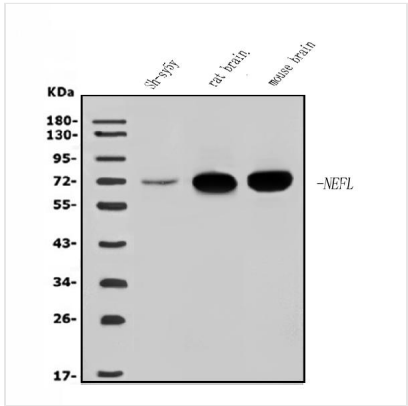
IHC (Immunohistochemistry)

Figure 5. IHC analysis of NEFL/NF-L using anti-NEFL/NF-L antibody (AAA125655).NEFL/NF-L 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-NEFL/NF-L Antibody (AAA125655) 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.



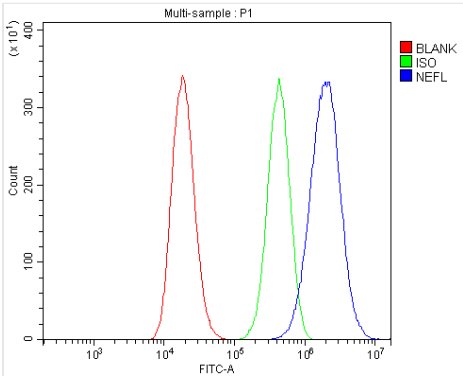
IHC (Immunohistochemistry)

Figure 4. IHC analysis of NEFL/NF-L using anti-NEFL/NF-L antibody (AAA125655).NEFL/NF-L was detected in paraffin-embedded section of rat 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-NEFL/NF-L Antibody (AAA125655) 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.



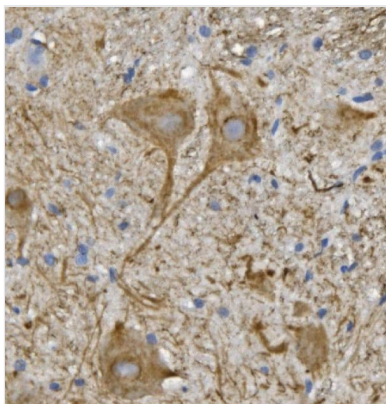
WB (Western Blot)

Figure 1. Western blot analysis of NEFL/NF-L using anti-NEFL/NF-L antibody (AAA125655).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: human SH-SY5Y whole cell lysatesLane 2: rat brain tissue lysatesLane 3: 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-NEFL/NF-L antigen affinity purified polyclonal antibody (Catalog # AAA125655) at 0. 5 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 NEFL/NF-L at approximately 72KD. The expected band size for NEFL/NF-L is at 72KD.



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of 293T cells using anti-NEFL/NF-L antibody (AAA125655).Overlay histogram showing 293T cells stained with AAA125655 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NEFL/NF-L Antibody (AAA125655, 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.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of NEFL/NF-L using anti-NEFL/NF-L antibody (AAA125655). NEFL/NF-L 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-NEFL/NF-L Antibody (AAA125655) 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.

ADDITIONAL INFORMATION

Related Product Information for anti-NEFL antibody	Neurofilament light polypeptide (NFL), also known as neurofilament light chain, is a neurofilament protein that in humans is encoded by the NEFL gene. Neurofilaments are type IV intermediate filament heteropolymers composed of light, medium, and heavy chains. Neurofilaments comprise the axoskeleton and they functionally maintain the neuronal caliber. They may also play a role in intracellular transport to axons and dendrites. This gene encodes the light chain neurofilament protein. Mutations in this gene cause Charcot-Marie-Tooth disease types 1F (CMT1F) and 2E (CMT2E), disorders of the peripheral nervous system that are characterized by distinct neuropathies. A pseudogene has been identified on chromosome Y.
References	1. Berciano, J., Garcia, A., Peeters, K., Gallardo, E., De Vriendt, E., Palayo-Negro, A. L., Infante, J., Jordanova, A. NEFL E396K mutation is associated with a novel dominant intermediate Charcot-Marie-Tooth disease phenotype. J. Neurol. 262: 1289-1300, 2015. 2. Hurst, J., Flavell, D., Julien, J. -P., Meijer, D., Mushynski, W., Grosveld, F. The human neurofilament gene (NEFL) is located on the short arm of chromosome 8. Cytogenet. Cell Genet. 45: 30-32, 1987. 3. Leung, C. L., Nagan, N., Graham, T. H., Liem, R. K. H. A novel duplication/insertion mutation of NEFL in a patient with Charcot-Marie-Tooth disease. Am. J. Med. Genet. 140A: 1021-1025, 2006.

NCBI AND UNIPROT INFORMATION

NCBI GI #	62511894
NCBI GeneID	4747
UniProt Accession #	P07196; Q16154; Q8IU72; B9ZVN2
Molecular Weight	543
NCBI Official Full Name	Neurofilament light polypeptide
NCBI Official Synonym Full Names	neurofilament, light polypeptide
NCBI Official Symbol	NEFL
NCBI Official Synonym Symbols	NFL; NF-L; NF68; CMT1F; CMT2E; PPP1R110
NCBI Protein Information	neurofilament light polypeptide; neurofilament subunit NF-L; neurofilament triplet L protein; neurofilament protein, light chain; neurofilament, light polypeptide 68kDa; light molecular weight neurofilament protein; protein phosphatase 1, regulatory subun
UniProt Protein Name	Neurofilament light polypeptide

UniProt Gene Name	NEFL
UniProt Synonym Gene Names	NF68; NFL; NF-L
UniProt Entry Name	NFL_HUMAN

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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/nefl-nf-l-antibody-direct-elisa-flow-cytometry-immunohistochemistry-western-blot-elisa/125655>