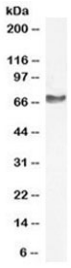
NEFL Antibody / Neurofilament Light Polypeptide Antibody (R36472)

Catalog No.	Formulation	Size
R36472-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Dog, Cow, Pig
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
UniProt	P07196
Applications	Western blot: 0.5-2ug/ml ELISA (peptide) LOD: 1:4000
Limitations	This NEFL Antibody / Neurofilament Light Polypeptide Antibody is available for research use only.



NEFL Antibody in KELLY Neuroblastoma Cells WB. Western blot testing of human KELLY neuroblastoma cell lysate with NEFL Antibody / Neurofilament Light Polypeptide Antibody at 0.5 ug/ml. A band is detected at approximately 68 kDa, consistent with the predicted molecular weight of neurofilament light polypeptide. This NEFL Antibody demonstrates detection of NF-L in human neuroblastoma cells.

Description

NEFL Antibody / Neurofilament Light Polypeptide Antibody detects neurofilament light polypeptide, an intermediate filament protein encoded by the NEFL gene. Also commonly known as neurofilament light chain or NF-L, NEFL is a major structural component of neuronal intermediate filaments and contributes to the organization and mechanical stability of axons. Neurofilaments are particularly abundant in large myelinated axons, where their organization helps regulate axonal caliber and supports normal neuronal structure and function.

Neurofilaments are assembled from light, medium and heavy subunits, commonly designated NF-L, NF-M and NF-H. The approximately 68 kDa neurofilament light polypeptide plays a central role in neurofilament assembly and associates with the other subunits to form filamentous networks throughout neuronal processes. Proper assembly, organization and transport of these proteins are important for maintaining axonal architecture and neuronal integrity.

NEFL is widely investigated in neuroscience and neuropathology because changes in neurofilament organization can accompany axonal injury and neurodegeneration. Damage to neurons can result in the release of NF-L into extracellular fluids, and neurofilament light has become an important biomarker in research involving multiple sclerosis, amyotrophic lateral sclerosis, Alzheimer's disease and other neurological disorders. Changes affecting the NEFL gene itself can also disrupt neurofilament organization and are associated with certain inherited peripheral neuropathies.

Neurofilament light polypeptide expression is useful for studying neuronal differentiation and for identifying neuronal structures in experimental models. NEFL research encompasses axonal development, intermediate filament assembly, neuronal injury and mechanisms contributing to degeneration of the central and peripheral nervous systems. Its structural role and strong association with neurons make NF-L an important target for investigating both normal neuronal biology and pathological changes involving axons.

This rabbit polyclonal NEFL Antibody has been evaluated by Western blot for detection of neurofilament light polypeptide. NSJ Bioreagents supplies antibodies for research into neuronal structure, axonal biology and nervous system disease. An NEFL Antibody can be used to investigate neurofilament light polypeptide expression, neuronal intermediate filaments, axonal integrity and mechanisms associated with neurodegeneration.

For additional research on NF-L expression, axonal structure and neuronal intermediate filaments, see our Neurofilament Light Chain Antibody / Neuronal Cytoskeleton Marker page.

Application Notes

Optimal dilution of the NEFL Antibody / Neurofilament Light Polypeptide Antibody should be determined by the researcher.

Immunogen

Amino acids EKQLQELEDKQNAD were used as the immunogen for this NEFL antibody.

Storage

Aliquot and store the NEFL antibody at -20oC.

Alternate Names

NEFL antibody, Neurofilament Light Polypeptide antibody, Neurofilament Light Chain antibody, NF-L antibody, Neurofilament Protein 68 kDa antibody

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