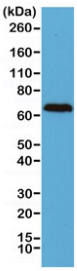
NF-L Antibody / Neurofilament Protein 68 kDa Antibody [clone RM280] (R20297)

Catalog No.	Formulation	Size
R20297-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

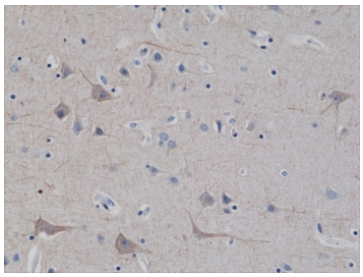
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM280
Purity	Protein A purified from animal origin-free supernatant
UniProt	P07196
Gene ID	4747
Applications	Immunohistochemistry (FFPE): 1:1000-1:2500 (1) Western blot: 1:1000-1:2500
Limitations	This NF-L Antibody / Neurofilament Protein 68 kDa Antibody is available for research use only.



NF-L Antibody in Human Brain WB. Western blot testing of human brain lysate with NF-L Antibody / Neurofilament Protein 68 kDa Antibody at 1:2500. A prominent band is observed within the predicted molecular weight range of approximately 62-68 kDa. This NF-L Antibody demonstrates detection of neurofilament light chain in human brain tissue.



NF-L Antibody in Human Brain IHC. Immunohistochemistry staining of FFPE human brain tissue with NF-L Antibody / Neurofilament Protein 68 kDa Antibody at 1:2500. The staining highlights neuronal cell bodies and processes, demonstrating the distribution of neurofilament light chain in human brain tissue.

Description

NF-L Antibody / Neurofilament Protein 68 kDa Antibody detects neurofilament light chain, an intermediate filament protein encoded by the NEFL gene. Commonly referred to as NF-L, neurofilament light chain is a major structural component of the neuronal cytoskeleton and has an apparent molecular weight of approximately 68 kDa. NF-L contributes to the organization and mechanical stability of axons and is particularly abundant in neurons with long, myelinated processes.

Neurofilaments are neuronal intermediate filaments composed primarily of light, medium and heavy subunits, designated NF-L, NF-M and NF-H. The light subunit plays an important role in neurofilament assembly and associates with other neurofilament proteins to form filamentous networks extending throughout axons. Neurofilament organization helps regulate axonal caliber and provides structural support necessary for maintaining neuronal morphology and function.

NF-L is widely studied in neuroscience because disruption of neurofilament organization can accompany neuronal injury, axonal degeneration and neurological disease. Damage to axons can result in the release of neurofilament light into extracellular fluids, making NF-L an important biomarker in research involving neurodegenerative and neuroinflammatory disorders. Neurofilament light is investigated in multiple sclerosis, amyotrophic lateral sclerosis, Alzheimer's disease and other conditions associated with neuroaxonal damage.

Alterations affecting NEFL itself can also impair neurofilament assembly and axonal function. Pathogenic NEFL variants are associated with inherited peripheral neuropathies, including forms of Charcot-Marie-Tooth disease. Neurofilament protein 68 kDa is additionally useful for examining neuronal differentiation and identifying neuronal structures in tissue-based research, providing a link between its fundamental cytoskeletal function and studies of nervous system development and disease.

Clone RM280 is a recombinant rabbit monoclonal antibody developed for detection of NF-L and has been evaluated by Western blot and immunohistochemistry. Recombinant production provides a defined antibody sequence and supports consistent performance across manufacturing lots. NSJ Bioreagents supplies antibodies for neuroscience and neural marker research. An NF-L Antibody can be used to investigate neurofilament protein 68 kDa expression, axonal structure, neuronal 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

The stated application concentrations are suggested starting points. Titration of the NF-L Antibody / Neurofilament Protein 68 kDa Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

1. A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE tissue sections.

Immunogen

A peptide corresponding to the C-terminus of human Neurofilament-L (NF-L) was used as the immunogen for this

recombinant Neurofilament / NF-L antibody.

Storage

Store the recombinant Neurofilament / NF-L antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

Alternate Names

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

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