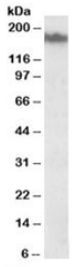
Neurofilament Medium Antibody / NF-M Antibody (R35201)

Catalog No.	Formulation	Size
R35201-100UG	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
Predicted Reactivity	Rat, Dog, Pig, Cow
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	4741
Localization	Cytoplasmic, membranous
Applications	Western blot: 0.03-0.1ug/ml ELISA (peptide) LOD: 1:128000
Limitations	This Neurofilament Medium Antibody / NF-M Antibody is available for research use only.



Neurofilament Medium Antibody Mouse Brain WB. Western blot testing of mouse brain lysate using Neurofilament Medium Antibody at 0.03 ug/mL. A distinct band is detected at approximately 145-160 kDa, consistent with the characteristic migration of heavily phosphorylated neurofilament medium chain, despite a predicted molecular weight of approximately 102 kDa. The slower electrophoretic mobility reflects extensive post-translational phosphorylation, a well-established property of NF-M in neuronal tissue. These results demonstrate that Neurofilament Medium Antibody, an NF-M Antibody, specifically detects endogenous neurofilament medium chain in mouse brain lysate.

Description

Neurofilament Medium Antibody recognizes neurofilament medium chain (NF-M), an intermediate filament protein encoded by the NEFM gene that forms one of the three principal neurofilament subunits of the neuronal cytoskeleton. Together with neurofilament light and neurofilament heavy chains, NF-M assembles into stable filament networks that

provide structural support for axons, maintain neuronal morphology, and regulate axonal caliber. These cytoskeletal functions are essential for efficient nerve impulse conduction and long-distance intracellular transport. Because of its abundant expression in mature neurons, Neurofilament Medium Antibody is widely used to identify neuronal populations and evaluate axonal integrity in neuroscience research.

NF-M undergoes extensive post-translational phosphorylation, particularly within axons, where phosphorylation regulates filament spacing, stability, and interactions with other cytoskeletal components. This modification also causes NF-M to migrate at a substantially higher apparent molecular weight than predicted during Western blot analysis, a characteristic feature of the protein. Alterations in neurofilament organization have been linked to impaired axonal transport, neuronal injury, and cytoskeletal dysfunction in numerous neurological disorders. As a result, Neurofilament Medium Antibody serves as an important research tool for investigating neuronal differentiation, axonal development, intermediate filament organization, and mechanisms of neurodegeneration.

Changes in NF-M expression and phosphorylation have been reported in disorders including amyotrophic lateral sclerosis, Alzheimer's disease, Parkinson's disease, multiple sclerosis, traumatic brain injury, and peripheral neuropathies. Neurofilament proteins are also widely studied as biomarkers of axonal damage because they are released following neuronal injury. In addition to disease research, NF-M is routinely evaluated during studies of nervous system development, neural regeneration, and neuronal maturation. A high-quality NF-M Antibody supports applications such as Western blotting, immunohistochemistry, immunofluorescence, immunoprecipitation, and flow cytometry for analyzing neuronal identity, cytoskeletal organization, and axonal structure.

NSJ Bioreagents offers Neurofilament Medium Antibody products for reliable detection of NF-M in a variety of research applications. This NF-M Antibody is well suited for studies of neuronal development, axonal biology, neurodegenerative disease, nervous system injury, and intermediate filament organization. For additional antibodies targeting the NEFM gene product, including products emphasizing neuronal cytoskeletal marker applications, visit our NEFM Antibody / Neuronal Cytoskeletal Marker Antibody page.

Application Notes

Optimal dilution of the Neurofilament Medium Antibody / NF-M Antibody should be determined by the researcher.

Immunogen

Amino acids QASHITVERKDYLK were used as the immunogen for this NF-M / Neurofilament Medium antibody.

Storage

Aliquot and store the NF-M / Neurofilament Medium antibody at -20oC.

Alternate Names

Neurofilament Medium antibody, NF-M antibody, Neurofilament Medium Chain antibody, Neurofilament M antibody, NEFM antibody

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