

PRODUCT DATA SHEET

Bioworld Technology,Inc.

NEFM polyclonal antibody

Catalog: BS67749 Host: Rabbit Reactivity: Human, Mouse, Rat

BackGround:

The cytoskeleton consists of three types of cytosolic fibers: actin microfilaments, intermediate filaments, and microtubules. Neurofilaments are the major intermediate filaments found in neurons and consist of light (NFL), medium (NFM), and heavy (NFH) subunits. Similar in structure to other intermediate filament proteins, neurofilaments have a globular amino-terminal head, a central α-helical rod domain, and a carboxy-terminal tail. A heterotetrameric unit (NFL-NFM and NFL-NFH) forms a protofilament, with eight protofilaments comprising the typical 10 nm intermediate filament. While neurofilaments are critical for radial axon growth and determine axon caliber, microtubules are involved in axon elongation. PKA phosphorylates the head domain of NFL and NFM to inhibit neurofilament assembly. Research studies have shown neurofilament accumulations in many human neurological disorders, including Parkinson's disease (in Lewy bodies along with α-synuclein), Alzheimer's disease, Charcot-Marie-Tooth disease, and Amyotrophic Lateral Sclerosis (ALS).

Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 163 kDa

Swiss-Prot:

P07197

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200), IF/ICC (1/50 - 1/200)

Storage&Stability:

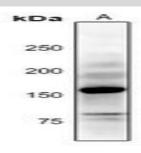
Store at 4 ${\mathbb C}$ short term. Aliquot and store at -20 ${\mathbb C}$ long

term. Avoid freeze-thaw cycles.

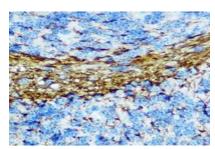
Specificity:

Recognizes endogenous levels of NEFM protein.

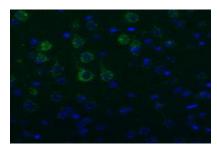
DATA:



Western blot analysis of NEFM expression in SHSY5Y (A) whole cell lysates.



Immunohistochemical analysis of NEFM staining in mouse brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of NEFM staining in mouse brain. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for

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5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 $\,^{\circ}$ C in a humidified chamber. Cells were washed with PBST and incubated with a AF 488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

Note:

For research use only, not for use in diagnostic procedure.

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