

Product name:	Neurofilament Medium (NF-M)
Cat number:	AB-11153
Conjugate:	Unconjugated
Size:	100 ul
Clone:	POLY
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Immunogen:	Recombinant fusion protein containing the extreme C-terminal segment of rat NF-M, amino acids 549-845
Reactivity:	Hu, Rt, Ms, Ct, cw, Pig,Rb
Applications:	Western Blot: 1:1,000-5,000 Immunofluorescence: 1:1,000-1:2500. Immunocytochemistry: 1:1,000-1:2500. Immunohistochemistry: 1:1,000-1:2500. ABC: 1:5,000.
Molecular Weight:	145-160kDa
Purification:	Serum
Form:	Liquid
Buffer:	Supplied as an aliquot of serum plus 5mM NaN ₃
Storage:	Storage for short term at 4°C recommended,for longer term at -20°C, minimize freeze/thaw cycles.

Background:

Neurofilaments are the 10nm or intermediate filament proteins found specifically in neurons, and are composed predominantly of three major proteins called NF-L, NF-M and NF-H. NF-M is the neurofilament middle or medium molecular weight polypeptide and runs on SDS-PAGE gels at 145-160kDa, with some species variability, though the real molecular weight is ~105kDa. The major function of neurofilaments is likely to control the diameter of large axons (1). Antibodies to NF-M such as NF-M are useful for identifying neuronal cells and their processes in tissue sections and in cell culture. NF-M antibodies can also be useful to visualize neurofilament rich accumulations seen in many neurological diseases, such as Amyotrophic Lateral Sclerosis (a.k.a. Lou Gehrig's disease) and Alzheimer's disease (2-4). Much recent evidence has suggested that the detection of NF-L and NF-H in blood and CSF might be a useful prognostic or diagnostic biomarkers of neuronal damage and degeneration associated with a variety of CNS pathologies (5,6). The potential utility of NF-M in this fashion has not to date been examined. The NF-M antibody was made against a recombinant fusion protein of E. coli TrpE fused to the C-terminus of rat NF-M, amino acids 677-845 (7). This region is very highly conserved in protein sequence across species boundaries and contains some interesting peptide repeats of currently unknown function (8). The NF-M antibody is very similar in properties to a rabbit polyclonal the production and characterization of which were described in reference 7.