

### 30-1183: Anti-Neurofilament medium protein Monoclonal Antibody (Clone:NF-09)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	NF-09
<b>Application :</b>	ICC,IHC,WB
<b>Format :</b>	Purified
<b>Isotype :</b>	Mouse IgG2a
<b>Immunogen Information :</b>	Pellet of porcine brain cold stable proteins after depolymerization of microtubules.

#### Description

Neurofilaments (NFs) are a type of intermediate filament (IF) expressed almost exclusively in neuronal cells, and in those cells most prominently in large axons. NFs in most vertebrates are composed of three different polypeptide chains with different molecular weights - neurofilament medium protein (NF-M), high (NF-H) and light protein (NF-L), which share sequence and structural similarity in a coiled-coil core domain, but differ in the length and sequence of their N-termini and more dramatically of their C-termini which in the case of NF-M and NF-H form the flexible extensions that link NFs to each other and to other elements in the cytoplasm. NF-M protein tail-mediated interactions of neurofilaments are critical for size and cytoskeletal architecture of axons, and are mediated, in part, by the highly phosphorylated tail domain of this protein. NF-M phosphorylation and O-GlcNAcylation are regulated reciprocally and affect its translocation and filament formation and function. Antibodies to the various neurofilament subunits are very useful cell type markers since the proteins are among the most abundant of the nervous system, are expressed only in neurons and are biochemically very stable.

#### Product Info

<b>Amount :</b>	0.1 mg
<b>Purification :</b>	Purified by protein-A affinity chromatography
<b>Storage condition :</b>	Store at 2-8°C. Do not freeze.

#### Application Note

Immunocytochemistry: Positive tissue: Neuro2A murine cell line, Carnoys fixative 2 x 3 min, blocking 1% glycine + 0.2% gelatin 10 min.

Western blotting: Recommended dilution: 1-2  $\mu$ g/ml.

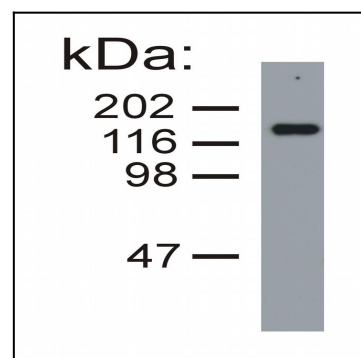


Figure 1: Western blotting analysis of neurofilament medium protein in porcine brain lysate (reducing conditions) by mouse monoclonal NF-09.

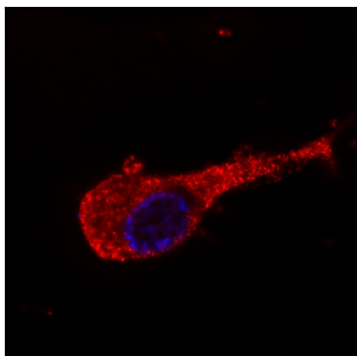


Figure 2: Immunofluorescence staining of neurofilament medium protein in murine Neuro2A cells by antibody NF-09 conjugated with Dyomics 547 (red). DNA stained by Hoechst (blue).