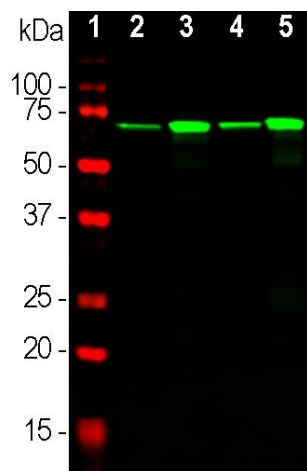
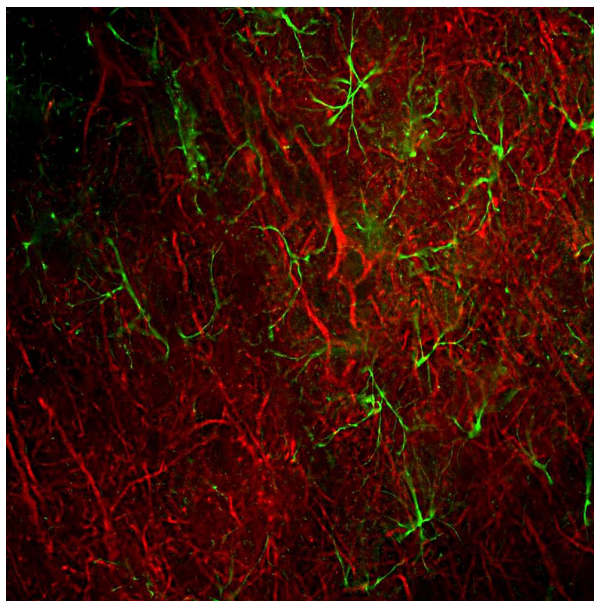


Product name:	Neurofilament Light (NF-L)
Cat number:	MAB-10582
Conjugate:	Unconjugated
Size:	100 ug
Clone:	DA2
Concentration:	1mg/ml
Host:	Ms
Isotype:	IgG1k
Immunogen:	Enzymatically dephosphorylated full length pig NF-L protein
Reactivity:	Hu, Ms, Rt, Ct, Ch
Applications:	Western Blot: 1:5,000 Immunohistochemistry: 1:1,000 Immunofluorescence: 1:1,000 Immunocytochemistry: 1:1,000
Molecular Weight:	68kDa by SDSPAGE
Purification:	Purified
Form:	Liquid
Buffer:	Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN ₃
Storage:	Store at 4°C for short term, for longer term at -20°C.
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, though other filament proteins may be included also. The major function of neurofilaments is likely to control the diameter of large axons. NF-L is the neurofilament light or low molecular weight polypeptide and runs on SDS-PAGE gels at 68-70kDa with some variability across species. Antibodies to NF-L like DA2 are useful for identifying neuronal cells and their processes in cell culture and sectioned material. NF-L antibody can also be useful for the visualization of neurofilament rich accumulations seen in many neurological diseases, such as Lou Gehrig's disease (ALS), giant axon neuropathy, Charcot-Marie Tooth disease and others. Much interest has recently been focused on the detection of NF-L released from neurons into blood and CSF as a surrogate marker of primarily axonal loss in a variety of types of CNS injury and degeneration. MAB-10582 antibody was made against a preparation of NF-L isolated from pig spinal cord. It binds NF-L from a variety of species including human, rat and mouse. We recently epitope mapped this antibody to a short peptide in the C-terminal "tail" region of the molecule, We recently epitope mapped this antibody to a short peptide in the C-terminal "tail" region of the molecule within the sequence SYYTSHVQEEQIEVEETIEA, amino acids 441-460 of the human sequence



Western blot analysis of whole tissue lysates using mouse mAb to NF-L, dilution 1:5,000 in green: [protein standard (red), rat brain, [3] rat spinal cord, mouse brain, mouse spinal cord. The strong band at 68-70kDa corresponds to the NF-L protein.



Immunofluorescent analysis of rat frontal cortex section stained with mouse mAb to NF-L, DA2, dilution 1:500 in red, and costained with chicken pAb to GFAP, dilution 1:5,000 in green. Following transcardial perfusion of rat with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45μM, and free-floating sections were stained with above antibodies. The DA2 antibody labels cell bodies and processes of pyramidal neurons, as well as dendrites and axons of other neuronal cells, while the GFAP antibody stains the network of glial cells.