



<b>Catalog Number:</b>	MO22201	<b>Host:</b>	Mouse
<b>Product Type:</b>	Mouse Monoclonal IgG1	<b>Species Reactivity:</b>	Human, Rat, Mouse, Cow, Pig, Horse
<b>Immunogen Sequence:</b>	Pig NF-L expressed in and purified from <i>E. coli</i> .	<b>Format:</b>	Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3
<b>Applications:</b>	Immunofluorescence: 1:2,000 Immunohistochemistry: 1:2,000 Western Blot: 1:10,000-20,000		
<b>Storage:</b>	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. Antibody can also be aliquotted and stored frozen at -20° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Avoid repeated freeze-thaw cycles.		

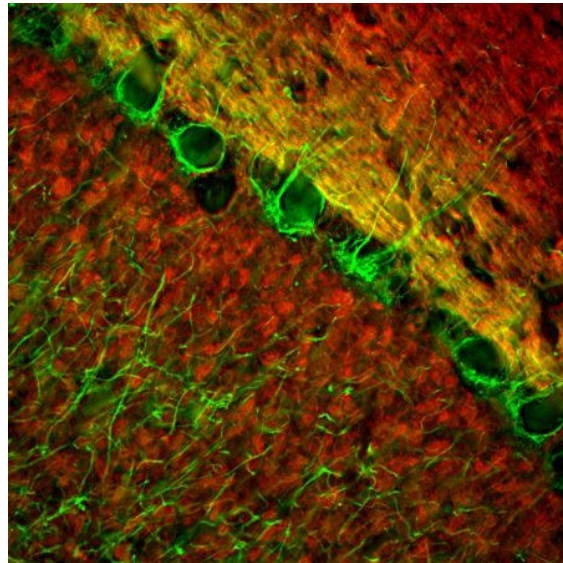
### Application Notes

#### Description/Data

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, but in certain cell types and during development  $\alpha$ -internexin, peripherin, nestin and vimentin may be included also. 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 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 many other.

The antibody was made against a preparation of recombinant full length human NF-L protein expressed in and purified from *E. coli*. This antibody is known to bind NF-L from a variety of species including human, rat and mouse, and the epitope is 100% conserved in all mammalian NF-L sequences, so this antibody will have wide applicability.

*Image: Immunofluorescent analysis of cow cerebellum section stained with mouse mAb to NF-L, MO22201, dilution 1:2,000 in green, and costained with chicken pAb to VLP1, dilution 1:2,000 in red. Blue is Hoechst staining of nuclear DNA. Small section of cow cerebellum was fixed in 4% paraformaldehyde for 3 days, cut to 45 $\mu$ M, and free-floating sections were stained with the above antibodies. The antibody labels dendrites and axons of neuronal cells in the granular layer (lower left) and prominent basket cell axons surrounding the large Purkinje neurons. The VLP1 antibody reveals protein expressed in granule cells and in synapses of the molecular layer of the cerebellum.*



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