

# NEFL Monoclonal Antibody (DA2)

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse, Rat
Published Species	Human, Chicken
Host/Isotope	Mouse /
Class	Monoclonal
Type	Antibody
Clone	DA2
Conjugate	Unconjugated
Immunogen	Enzymatically dephosphorylated porcine neurofilaments.
Form	Liquid
Concentration	1 mg/mL
Purification	Protein G
Storage buffer	PBS with 1mg/mL BSA
Contains	0.05% sodium azide
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_347003

Applications	Tested	Dilution	Published
Miscellaneous PubMed (MISC)	-		3 Publications
Immunocytochemistry (ICC)	✓	2-3 µg/mL	1 Publication
ELISA (ELISA)	✓	Assay dependent	
Immunofluorescence (IF)	✓	2-3 µg/mL	
Immunohistochemistry (Frozen) (IHC (F))	✓	Assay Dependent	
Immunohistochemistry (Paraffin) (IHC (P))	✓	Assay Dependent	
Western Blot (WB)	✓	1-2 µg/mL	

## Product Specific Information

MA1-2010 detects the neurofilament, light chain in human, rat, and mouse samples.

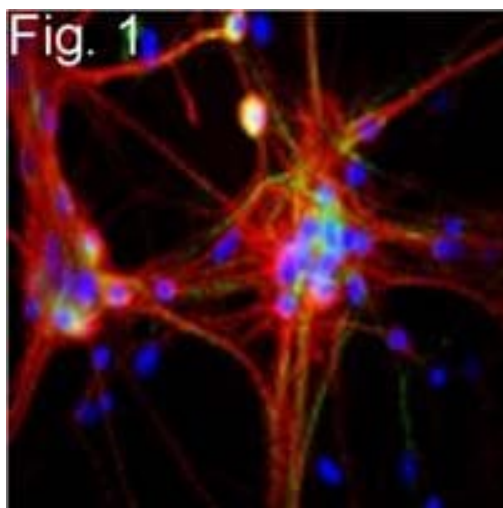
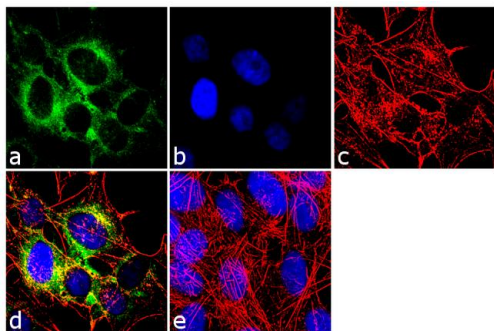
MA1-2010 has been successfully used in western blot, immunohistochemistry, and immunofluorescence. By western blot this antibody detects a ~70 kDa protein representing the neurofilament, light chain in mouse brain tissue lysate. In immunohistochemistry procedures MA1-2010 recognizes the neurofilament, light chain in mouse brain tissue. In immunofluorescence procedures MA1-2010 recognizes the neurofilament, light chain in rat cerebral cortices.

The MA1-2010 immunogen is enzymatically dephosphorylated porcine neurofilaments.

## Product Images For NEFL Monoclonal Antibody (DA2)

### NEFL Antibody (MA1-2010) in IF

Immunofluorescence analysis of Neurofilament, Light chain was done on 70% confluent log phase SH-SY5Y cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with Neurofilament, Light chain (DA2) Mouse Monoclonal Antibody (Product # MA1-2010) at 2 µg/mL in 0.1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A28175) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin (Product # R415, 1:300). Panel d is a merged image showing cytoplasmic localization. Panel e is a no primary antibody control. The images were captured at 60X magnification.

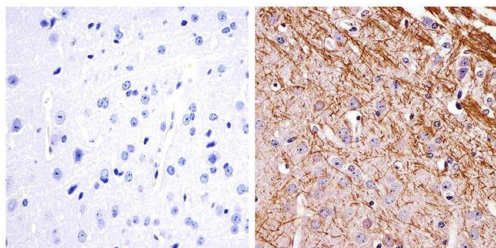


### NEFL Antibody (MA1-2010) in IF

Immunofluorescence of neurofilament, light chain in rat cerebral cortex cultures in green.

### NEFL Antibody (MA1-2010) in IHC

Immunohistochemistry analysis of the neurofilament light chain showing staining in the filaments of paraffin-embedded mouse brain tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0) and microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H<sub>2</sub>O<sub>2</sub>-methanol for 15 min at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with a Neurofilament light chain monoclonal antibody (Product # MA1-2010) diluted in 3% BSA-PBS at a dilution of 1:20 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



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## 4 References

### Miscellaneous PubMed (3)

**Glia**  
**Phagocytosis of neuronal debris by microglia is associated with neuronal damage in multiple sclerosis.**  
"MA1-2010 was used in immunohistochemistry to investigate phagocytosis of neuronal antigens in a multiple sclerosis model."  
Authors: Huizinga R, van der Star BJ, Kipp M, Jong R, Gerritsen W, Clarner T, Puentes F, Dijkstra CD, van der Valk P, Amor S

**Species**  
Human  
**Dilution**  
Not Cited  
**Year**  
2012

**Journal of neuropathology and experimental neurology**  
**Alphab-crystallin is a target for adaptive immune responses and a trigger of innate responses in preactive multiple sclerosis lesions.**  
"MA1-2010 was used in western blot to compare the serum immunoglobulin G reactivity profiles obtained using the full spectrum of human myelin-associated proteins of multiple sclerosis patients and healthy control subjects."  
Authors: van Noort JM, Bsibsi M, Gerritsen WH, van der Valk P, Bajramovic JJ, Steinman L, Amor S

**Species**  
Human  
**Dilution**  
Not Cited  
**Year**  
2010

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### Immunocytochemistry (1)

**Journal of neuroscience research**  
**Identification of a tektin-like protein associated with neurofilaments in the developing chick nervous system.**  
"MA1-2010 was used in immunocytochemistry to investigate the association between tektin-like protein and neurofilaments in chicken neurons"  
Authors: Edson KJ, Linck RW, Letourneau PC

**Species**  
Chicken  
**Dilution**  
Not Cited  
**Year**  
1991

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