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	

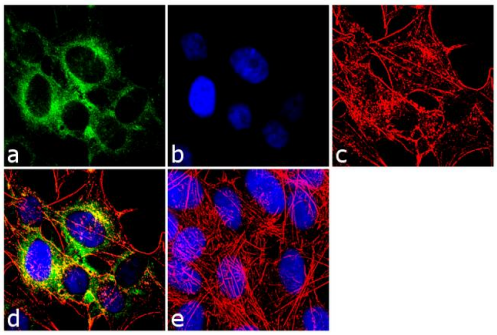
Product Specific Information

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

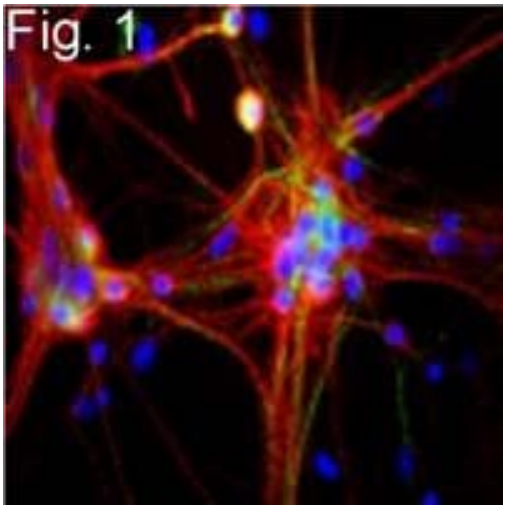
MA1-2010 has been successfully used in western blot, immunohistochemistry, and immunofluorescence. By western blot this antibody detects a ~70 kDa protein representing the neurofilament, light chain in mouse brain tissue lysate. In immunohistochemistry procedures MA1-2010 recognizes the neurofilament,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

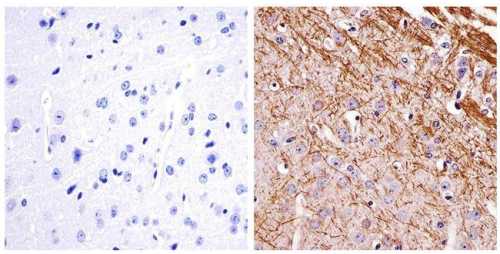
Product Images For NEFL Monoclonal Antibody (DA2)



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% H2O2-methanol for 15 min at room temperature, washed with ddH2O 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

View more MISC references on thermofisher.com

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