Neurofilament L/M/H Antibody Sampler Kit

Catalog# / Size 899912 / 1 kit

Regulatory Status RUO

Other Names Please refer to individual product datasheets.

Description The Neurofilament L/M/H Antibody Sampler Kit offers flexibility for sampling and detection of neurofilaments under normal and pathophysiological conditions. This selection of antibodies allows visualization of neuronal axons, dendrites, and cell bodies depending on the clone utilized. Clone SMI 31 reacts primarily with axons while clone SMI 32 visualizes neuronal cell bodies, axons, and dendrites. Clones SMI 35 and SMI 310 generally react with axons. Clone SMI 35 may be used to detect early neuronal cell pathology and intraneuronal neurofibrillary tangles in Alzheimer's disease (AD). Clone SMI 310 demonstrates strong reaction with extraneuronal (ghost) neurofibrillary tangles in AD. These antibodies provide an easy and rapid solution for multiplexing in ICC or IHC applications.

Kit Contents

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Specificity	Format	Clone	Size	Reactivity	Isotype
Anti-Neurofilament L (NF-L)	Alexa Fluor® 647	NFL3	25 µg	Human, Mouse, Rat	Mouse IgG1, κ
Anti-Neurofilament H & M (NF-H/NF-M), Phosphorylated	Alexa Fluor® 488	SMI 310	25 µg	Human, Mouse, Rat	Mouse IgG1, κ
Anti-Neurofilament H (NF-H), Nonphosphorylated	Alexa Fluor® 488	SMI 32	25 µg	Rat, mammalian, mouse	Mouse IgG1, κ
Anti-Neurofilament H (NF-H), Phosphorylated	Alexa Fluor® 594	SMI 31	25 µg	Human, Mouse, Rat	Mouse IgG1, κ
Anti-Neurofilament H & M (NF-H/NF-M), Hypophosphorylated	Alexa Fluor® 594	SMI 35	25 µg	Human, Mouse, Rat	Mouse IgG1, κ

*** For detailed information about each specificity, please refer to the datasheets of the individual products.**

Product Details

Formulation Please refer to individual product datasheets.

Preparation Please refer to individual product datasheets.

Storage & Handling Upon receipt, store undiluted at 2-8°C.

Application IHC-P, ICC - *Quality tested*

Recommended Usage Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, the suggested uses of these reagents

	are as follows: Anti-Neurofilament L (NF-L): 5.0 - 10 µg/ml Anti-Neurofilament H & M (NF-H/NF-M), Phosphorylated: 5.0 - 10 µg/ml Anti-Neurofilament H (NF-H), Nonphosphorylated: 1.0 - 5.0 µg/ml Anti-Neurofilament H (NF-H), Phosphorylated: 1.0 - 5.0 µg/ml For immunocytochemistry, the suggested uses of these reagents are as follows: Anti-Neurofilament H & M (NF-H/NF-M), Hypophosphorylated: 5.0 - 10 µg/ml It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	For verified or reported applications for these antibodies, please see individual product datasheets.

Antigen Details

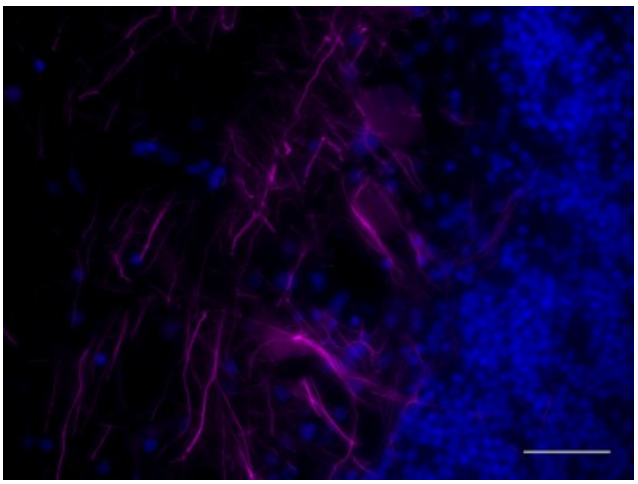
Biology Area	Cell Biology, Neuroscience, Neuroscience Cell Markers
Antigen References	Please refer to individual product data sheets for antigen references.
Gene ID	4744 4747

Related Protocols

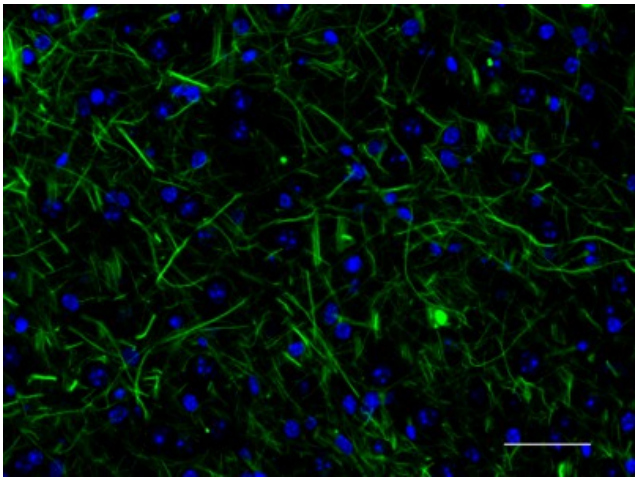
Immunocytochemistry Staining Protocol

Immunohistochemistry Protocol for Paraffin-Embedded Sections

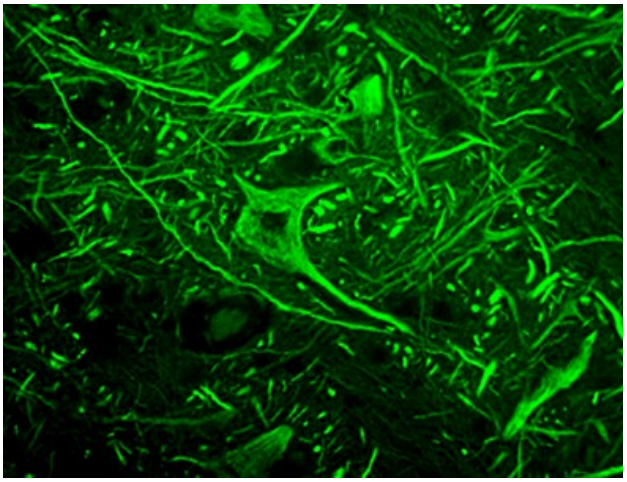
Product Data



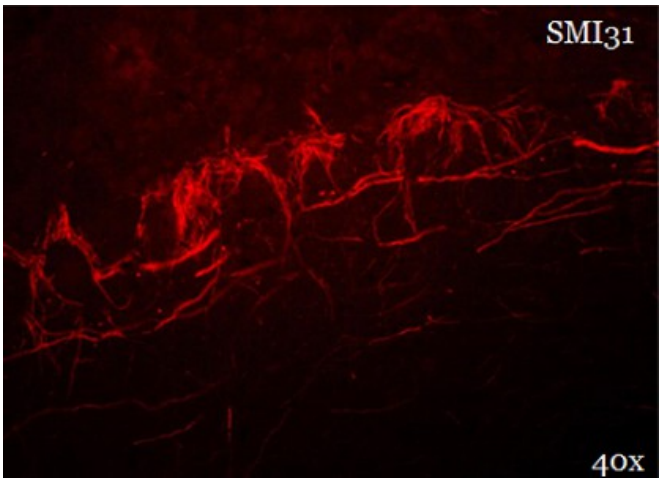
IHC staining of Alexa Fluor® 647 anti-Neurofilament L (NF-L) antibody (clone NFL3) on formalin-fixed paraffin-embedded human brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R (Cat. No. 928602), the tissue was incubated with 5 µg/ml of the primary antibody overnight at 4°C. The image was captured with a 40X objective. Scale bar: 50 µm



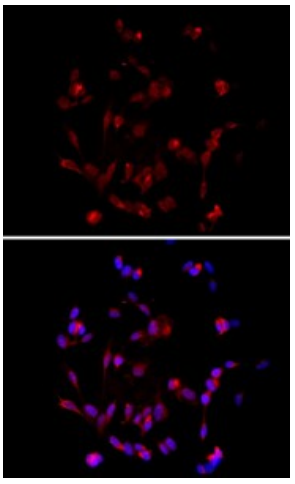
IHC staining of Alexa Fluor® 488 anti-Neurofilament H & M (NF-H/NF-M), Phosphorylated antibody (clone SMI 310) on formalin-fixed paraffin-embedded mouse midbrain tissue. Following antigen retrieval using Retrieve-All Antigen Unmasking System 3 (Cat. No. 927601), the tissue was incubated with 10 µg/mL of the primary antibody overnight at 4°C. Nuclei were counterstained with DAPI, and the slides were mounted with ProLong™ Gold Antifade Mountant. The image was captured with a 40X objective. Scale Bar: 50 µm



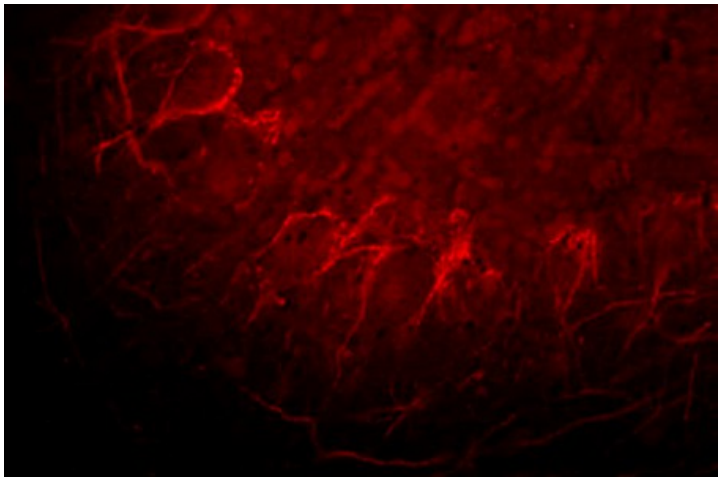
IHC staining of Alexa Fluor® 488 anti-Neurofilament H (NF-H), Nonphosphorylated antibody (Clone SMI 32) on formalin-fixed paraffin-embedded normal rat brain tissue. Following antigen retrieval using Retrieve-All Antigen Unmasking System 3, the tissue was incubated with the primary antibody at 5 µg/ml overnight at 4°C. Image was captured with a 40X objective.



IHC staining of Alexa Fluor® 594 anti-Neurofilament H (NF-H), Phosphorylated (clone SMI 31) on formalin-fixed paraffin-embedded rat brain tissue. Following antigen retrieval using Retrieve-All Antigen Unmasking System 3 (Cat. No. 927701), the tissue was incubated with 5 µg/mL of the primary antibody for 1 hour at room temperature. The image was captured with a 40x objective.



SH-SY5Y neuroblastoma cells were fixed with 4% paraformaldehyde, and then permeabilized with 0.1% Triton x100 for 20 minutes. Cells were blocked with 2% Normal Goat Serum for 30 minutes at room temperature, then incubated with Alexa Fluor® 594 conjugated anti-NF-H/M Hypophosphorylated antibody at 5 µg/mL for 3 hours at room temperature. Nuclei were stained with DAPI (bottom panel, blue). Images were captured with a 40X objective.



Immunofluorescence staining of anti-Neurofilament H & M (NF-H/NF-M), Hypophosphorylated (SMI 35) conjugated to Alexa Fluor® 594 on formalin-fixed, paraffin-embedded rat brain tissue. Following antigen retrieval using Retrieve-All Antigen Unmasking Solution, the tissue was incubated with the Alexa Fluor® 594-conjugated antibody at 5 µg/mL for one hour at room temperature. The image was captured with a 40X objective.

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