

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human NF-M in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) NF-H or rhNF-L is observed.                                                                                                      |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 327921                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human NF-M<br>Ser2-Ser358<br>Accession # P07197                                                                                                                                                                                         |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|                           |                                                                        |
|---------------------------|------------------------------------------------------------------------|
| <b>Knockout Validated</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>       | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Human NF-M (neurofilament-medium length) is a 145-150 kDa phosphorylated glycoprotein that belongs to the type IV intermediate filament family. It is 915 amino acids in length and contains a 100 amino acid (aa) N-terminal globular region, a 320 aa  $\alpha$ -helical rod, or central region, and a 500 aa globular tail. The rod region contains a series of heptad repeats that contribute to a coiled-coil interaction with an adjacent NF-M molecule, the first step in intermediate filament oligomerization. The C-terminus shows phosphorylation and O-linked glycosylation. Human NF-M aa 2-358, which includes most of the rod region, shares ~98% aa sequence identity with corresponding region of mouse, rat and canine NF-M.

## PRODUCT SPECIFIC NOTICES

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