

# **Human NF-M Antibody**

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF3029

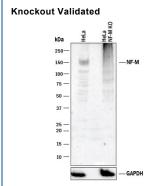
| DESCRIPTION        |  |  |  |
|--------------------|--|--|--|
| Species Reactivity | Human  |  |  |
| Specificity        | Detects human NF-M in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with recombinant human (rh) NF-H and rhNF-L is observed.                      |  |  |
| Source             | Polyclonal Sheep IgG   |  |  |
| Purification       | Antigen Affinity-purified  |  |  |
| Immunogen          | E. coli-derived recombinant human NF-M Ser2-Ser358 Accession # P07197  |  |  |
| Formulation        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |  |  |

#### 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.

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|---|---|---|--|
|   | Recommended<br>Concentration  | Sample  |  |
| Immunohistochemistry  | 5-15 μg/mL  | Immersion fixed paraffin-embedded sections of human brain (cerebellum and cortex) |  |
| Knockout Validated  | NF-M is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in NF-M knockout HeLa cell line. |   |  |
| Western Blot  | NF-M is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in NF-M knockout HeLa cell line. |   |  |

#### DATA



Western Blot Shows Human NF-M Specificity by Using Knockout Cell Line. Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and NF-M knockout HeLa cell line (KO). PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human NF-M Antigen Affinity purified Polyclonal Antibody (Catalog # AF3029) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for NF-M at approximately 155 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### PREPARATION AND STORAGE

**Reconstitution** Reconstitute at 0.2 mg/mL in sterile PBS.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

\*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

## Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

#### 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 α-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.

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