## Neurofilament Monoclonal Mouse Antibody (NR-4)



## **Product Description**

This MAb reacts with a 68 kDa protein, identified as light sub-unit of neurofilaments (NF-L). Neurofilaments make up the main structural elements of axons and dendrites and are found in neurons, peripheral nerves, and sympathetic ganglion cells. Neurofilaments consist of three major subunits with molecular weights of 68 kDa (NF-L), 160 kDa (NF-M) and 200 kDa (NF-H). Anti-neurofilament stains a number of neural, neuroendocrine, and endocrine tumors. Neuromas, ganglioneuromas, gangliogliomas, ganglioneuroblastomas, and neuroblastomas stain positively for anti-neurofilament. Neurofilaments are also present in paragangliomas as well as adrenal and extra-adrenal pheochromocytomas. Carcinoids, neuroendocrine carcinomas of the skin, and oat cell carcinomas of the lung also express neurofilament.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email <a href="mailto:order@biotium.com">order@biotium.com</a> to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 0303, Anti-Neurofilament (NR-4)

## Product attributes

| Product attributes  |  |  |  |  |  |
|---|--|--|--|--|--|
| Antibody number   | #0303  |  |  |  |  |
| Antibody reactivity (target)  | Neurofilament  |  |  |  |  |
| Antibody type   | Primary  |  |  |  |  |
| Host species  | Mouse  |  |  |  |  |
| Clonality   | Monoclonal   |  |  |  |  |
| Clone   | NR-4   |  |  |  |  |
| Isotype   | lgG1   |  |  |  |  |
| Molecular weight  | 68 kDa   |  |  |  |  |
| Synonyms  | NEFH; Neurofilament H; Neurofilament Heavy Polypeptide<br>200kDa; Neurofilament Triplet H Protein; NF-H; NF200   |  |  |  |  |
| Human gene symbol   | NEFH   |  |  |  |  |
| Entrez gene ID  | 4747   |  |  |  |  |
| SwissProt   | P07196   |  |  |  |  |
| Unigene   | 521461   |  |  |  |  |
| Immunogen   | Crude neurofilament preparation from porcine spinal cord   |  |  |  |  |
| Antibody target cellular localization   | Cytoskeleton   |  |  |  |  |
| Verified antibody applications  | Flow (intracellular) (verified), IF (verified), IHC (FFPE) (verified)  |  |  |  |  |
| Species reactivity  | Chicken, Cow, Human, Pig, Rat  |  |  |  |  |
| Antibody application notes  | primary antibody conjugates than for indirect detection with<br>secondary antibody, Immunofluorescence: 1-2 ug/mL,<br>Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of<br>formalin-fixed tissues requires boiling tissue sections in 10 ml<br>citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT<br>20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL,   |  |  |  |  |
|   | secondary antibody, İmmunofluorescence: 1-2 ug/mL,<br>Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of<br>formalin-fixed tissues requires boiling tissue sections in 10 mM<br>citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for<br>20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL,<br>Optimal dilution for a specific application should be determined   |  |  |  |  |
| Positive control  | secondary antibody, İmmunofluorescence: 1-2 ug/mL,<br>Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of<br>formalin-fixed tissues requires boiling tissue sections in 10 mM<br>citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for<br>20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL,<br>Optimal dilution for a specific application should be determined   |  |  |  |  |
| Positive control Shipping condition   | secondary antibody, İmmunofluorescence: 1-2 ug/mL, Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  |  |  |  |  |
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| Shipping condition<br>Storage Conditions  | secondary antibody, İmmunofluorescence: 1-2 ug/mL, Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Brain, Neuroblastoma  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when  |  |  |  |  |
| Shipping condition Storage Conditions Shelf life  | secondary antibody, İmmunofluorescence: 1-2 ug/mL, Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Brain, Neuroblastoma  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  |  |  |  |  |
| Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate                                     | secondary antibody, İmmunofluorescence: 1-2 ug/mL, Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Brain, Neuroblastoma  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified: BSA-free: 1 mg/mL in  |  |  |  |  |
| Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate formulation                         | secondary antibody, İmmunofluorescence: 1-2 ug/mL, Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Brain, Neuroblastoma  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified: 1 mg/mL in PBS without azide  |  |  |  |  |
| Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate formulation Antibody research areas | secondary antibody, İmmunofluorescence: 1-2 ug/mL, Immunohistology formalin-fixed 0.25-0.5 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user  Brain, Neuroblastoma  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  Conjugates: 0.1 mg/mL in PBS/0.05% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide  Cancer, Cytoskeleton, Neuroscience  Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in |  |  |  |  |

Call us: 800-304-5357 Email: btinfo@biotium.com

| Antibody # prefix | Conjugation           | Ex/Em (nm) | Laser line | Detection channel           | Dye Features     |
|-------------------|-----------------------|------------|------------|-----------------------------|------------------|
| BNC04             | CF®405S               | 404/431    | 405        | DAPI (microscopy),<br>AF405 | CF®405S Features |
| BNC88             | CF®488A               | 490/515    | 488        | GFP, FITC                   | CF®488A Features |
| BNC68             | CF®568                | 562/583    | 532, 561   | RFP, TRITC                  | CF®568 Features  |
| BNC94             | CF®594                | 593/614    | 561        | Texas Red®                  | CF®594 Features  |
| BNC40             | CF®640R               | 642/662    | 633-640    | Cy®5                        | CF®640R Features |
| BNC47             | CF®647                | 650/665    | 633-640    | Cy®5                        | CF®647 Features  |
| BNC74             | CF®740                | 742/767    | 633-685    | 775/50                      | CF®740 Features  |
| BNCB              | Biotin                | N/A        | N/A        | N/A                         |                  |
| BNUB              | Purified              | N/A        | N/A        | N/A                         |                  |
| BNUM              | Purified,<br>BSA-free | N/A        | N/A        | N/A                         |                  |

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