

DM080P**Monoclonal Antibody to Neurofilament L (68kDa) (+
Neurofilament H) - Purified****Alternate names:**

68 kDa neurofilament protein, NEFL, NF-L, NF68, Neurofilament L

Quantity:

0.1 mg

Concentration:

1 mg/ml

Background:

Like most other intermediate filament proteins (IFPs), the expression of the different neuronal IFPs is both tissue-specific and developmentally regulated. The neurofilament NF triplet proteins (70, 160, and 200 kDa) occur in both the central and peripheral nervous system and are normally restricted to neurons. The 70 kDa NF-protein can self-assemble into a filamentous structure, whereas the 160 kDa and 200 kDa NF-proteins require the presence of the 70 kDa NF-protein to co-assemble. All three NF proteins can be detected by immunohistochemical methods at day 9 or 10 after gestation in the mouse embryo. Although IFPs of the neurofilament type are normally restricted to neurons, there are reports on their expression in non-neuronal cells as well. For example, in heart conduction myocytes NF proteins are expressed together with desmin. In tumor pathology ganglioneuroblastomas and some of the other neuroblastomas are strongly positive with the neurofilament antisera. Also, some neuro-endocrine malignancies may show NF positivity. In cell cultures of neural tissues the neurofilament antibodies can monitor in vitro differentiation

Uniprot ID:[P07196](#)**NCBI:**[NP_006149.2](#)**GeneID:**[4747](#)**Host / Isotype:**

Mouse / IgG1

**Recommended Isotype
Controls:**

SM10P (for use in human samples), SM20P (for use in rat samples), AM03095PU-N

Clone:

2F11

Immunogen:

Human neurofilament preparation

Format:**State:** Liquid purified antibody
Buffer System: PBS
Preservatives: 0.09% Sodium Azide**Applications:****Immunoblotting.**
Immunohistochemistry on Frozen Sections.
Immunohistochemistry on Paraffin Embedded Sections.

Recommended Dilutions: 1/25–1/200 for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent, and 1/100–1/1000 for immunoblotting.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Molecular Weight:	68kDa and 200kDa (phosphorylated forms of these subunits).
Specificity:	2F11 reacts exclusively with the phosphorylated isoform of the 70 kD neurofilament protein. This antibody labels neurons, neuronal processes, and peripheral nerves as well as sympathetic ganglion cells and adrenal medulla. Cell body of neurons, containing the non-phosphorylated neurofilament, is weakly stained. Species: Human, Rabbit, Cat, Mouse, Rat and Opossum. Does not react with Dog. Other species not tested.
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	1. Klück P, van Muijen GN, van der Kamp AW, Tibboel D, van Hoorn WA, Warnaar SO, et al. Hirschsprung's disease studied with monoclonal antineurofilament antibodies on tissue sections. <i>Lancet</i>. 1984 Mar 24;1(8378):652-4. PubMed PMID: 6199635. 2. van Muijen GN, Ruiter DJ, van Leeuwen C, Prins FA, Rietsema K, Warnaar SO. Cytokeratin and neurofilament in lung carcinomas. <i>Am J Pathol</i>. 1984 Sep;116(3):363-9. PubMed PMID: 6206727. 3. Breckenridge LJ, Sommer IU, Blackshaw SE. Developmentally regulated markers in the postnatal cervical spinal cord of the opossum <i>Monodelphis domestica</i>. <i>Brain Res Dev Brain Res</i>. 1997 Oct 20;103(1):47-57. PubMed PMID: 9370059.