3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-521-8956 • (314) 771-5765
Fax 800-325-5052 • (314) 771-5757
sigma-aldrich.com

ProductInformation

MONOCLONAL ANTI-NEUROFILAMENT 200
CLONE NE14
Mouse Ascites Fluid

Product No. **N 5389**

Product Description

Monoclonal Anti-Neurofilament 200 (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Neurofilaments purified from pig spinal cord were used as the immunogen. The isotype is determined using Sigma ImmunoType™ Kit (Sigma Stock No. ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Sigma Stock No. ISO-2).

Monoclonal Anti-Neurofilament 200 specifically localizes the neurofilaments of molecular weight 200 kD using indirect immunofluorescent labeling on formalin-fixed, paraffin-embedded tissue sections or immunoblotting procedures. The antibody shows no reactivity with dephosphorylated neurofilaments. Good labeling may be obtained on human, pig, rat, chicken, bovine, guinea pig, rabbit and mouse tissue. The antibody does not cross react with the other intermediate filament proteins.

Monoclonal Anti-Neurofilament 200 may be used for the immunocytochemical localization of neurofilaments with molecular weights of 200 kD in culutered cells or tissue preparations.

Intermediate filaments (IFs), with characteristic 10 nm diameter are a distinct class of heterogenous protein subunits apparent by both immunological and biochemical criteria. IFs differ significantly from the other cytoskeletal elements of the cell, namely microtubules and microfilaments, and are components of most eukaryotic cells. The neurofilaments are one of the five major groups of IFs and are found predominantly in cells or tissues of neuronal origin. They are composed of three major proteins of apparent molecular weights 68 kD, 160 kD, and 200 kD. Neurofilament proteins are synthesized in the neuronal perikarya, assembled to form filaments and then slowly transported within the axons towards the synaptic terminals. These molecules undergo post-translational modification, which results in their heterogeneity, including different levels of phosphorylation. The phosphorylation of neurofilament polypeptides has been suggested to modulate their function by influencing the interaction between neurofilament and cytoplasmic organelles.

Reagents

The product is provided as ascites fluid containing 0.1% sodium azide as a preservative.

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Product Profile

A minimum working dilution of 1:40 was determined by indirect immunofluorescent labeling of formalin-fixed, paraffin-embedded tissue sections.

In order to obtain optimum results, it is recommended that each individual user determine their optimal working dilution by titration assay.

Storage

For continuous use, store at 2-8 °C for a maximum of one month. For extended storage, solution may be frozen in working aliquots. Repeated freezing and thawing is **not** recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify by centrifugation before use.

PCS 3/00

Please see reverse side of the invoice or packing slip.