3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone (800) 325-5832 (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

MONOCLONAL ANTI-VIMENTIN
Clone LN-6
Mouse Ascites Fluid

Product Number **V2258**

Product Description

Monoclonal Anti-Vimentin (mouse IgM isotype) is derived from the LN-6 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Human thymic nuclear extract was used as the immunogen.[1] The isotype is determined using Sigma ImmunoType™ Kit (Product Code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product Code ISO-2).

Intermediate filaments (IFs), with characteristic 10 nm diameter, are a distinct class of molecularly heterogeneous cytoskeletal filaments defined by ultrastructural, 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. Vimentin is one of the five major groups of IFs protein, with a molecular weight of 58 kDa. Monoclonal antibodies reacting specifically with vimentin have proved to be valuable tools for use in immunocytochemical localization of vimentin in normal and pathological tissue of mesenchymal origin, and for immunofluorescent labeling of vimentin-containing cultured cells. These antibodies may be used to localize vimentin in fibroblasts, endothelial cells, melanocytes, chondrocytes etc.[2-6] The antibodies react with tumors derived from these cells, including sarcomas, melanomas, meningiomas, and their metastatic lesions. They are useful for identifying undifferentiated tumors particularly in conjunction with other antibodies. Co-expression of vimentin with one or more of the other IFs is observed in a variety of normal and neoplastic nonmesenchymal tissues.[7] Such co-expression is unusual. Certain anti-vimentin antibodies do not stain lymphoid cells or their derived malignancies. Thus, they are useful in the differentiation of sarcomas from lymphomas.[1,8]

Reagents

The product is provided as ascites fluid with 0.1% sodium azide as 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.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, the 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 the solution by centrifugation before use.

Product Profile

Monoclonal Anti-Vimentin recognizes an epitope of the cytoskeletal protein vimentin (58 kDa), that is not detected in human lymphoid cells or derived malignancies. The antibody may be used to stain frozen, B5-fixed and formalin-fixed, paraffin-embedded tissue sections.[1] It is useful for immunofluorescent staining of cultured cells, immunoblotting and immunoprecipitation.[1] Due to the IgM isotype of the product, it is applicable in double-labeling studies. The reactivity of the product with benign and malignant tumors of mesenchymal and neural derivation has been described.[1] Cross-reactivity has been observed with vimentin from human, bovine, sheep, pig, rabbit, cat, rat, and mouse.

Monoclonal Anti-Vimentin may be used for the localization of vimentin using various immunochemical assays such as immunoblotting, immunocytochemistry, immunohistochemistry, and immunoprecipitation.

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

References

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