

Product Information

MONOCLONAL ANTI-HUMAN MACROPHAGES

Clone LN-5

Mouse Ascites Fluid

Product No. **M 1919**

Product Description

Monoclonal Anti-Human Macrophages (mouse IgM isotype) is derived from the LN-5 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from immunized BALB/c mice. Deparaffinized human peripheral blood mononuclear cells were 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).

Monoclonal Anti-Human Macrophages recognizes an antigen present in the cytoplasm of human macrophages in a wide variety of tissues and organs. The epitope recognized by the product is resistant to formalin fixation and paraffin embedding. The antibody also may be used on material fixed with B5 solution, neutral buffered formalin, Zinc-Formalin, Brunel's, Susa and Bouin's solutions. The antigen is not detectable by the antibody in standard frozen sections. Using indirect immunofluorescent or immunoperoxidase methods, the antibody stains the cytoplasm of macrophages and histiocytes in hematopoietic organs and Kupffer cells of the liver and Langerhans cells of the skin. Mantle zone B lymphocytes, interdigitating reticulum cells of lymph nodes and B cells in spleen are stained. Bone marrow lymphoid and myeloid precursor cells stain with a uniform interstitial pattern.² Certain normal non-lymphoid cells such as spermatogonia are stained while others such as breast ductal epithelium, kidney tubular epithelium, endometrium, parathyroid and stomach chief cells are only weakly stained. The antibody is reactive with benign and malignant histiocytic lesions such as sinus histiocytosis, dermatopathic lymphadenopathy, persistent generalized lymphadenopathy, tuberculosis, sarcoidosis, Gaucher's disease, true histiocytic lymphomas, malignant histiocytosis and histiocytosis-X.

Macrophages and histiocytes, which are widely distributed throughout the body, play a crucial role in the body defense mechanisms. They are heterogenous in morphology, cytochemistry, function and surface antigens. Immunohistochemical labeling with monoclonal antibodies is one of the most specific and reliable techniques for the identification and localization of these cells. Monoclonal antibodies to macrophage and histiocyte surface or cytoplasmic antigens are important for the immunodiagnosis of both benign and malignant histiocytic lesions. They are useful in the investigation of macrophage differentiation and maturation and in the diagnosis of various inflammatory, reactive and neoplastic disorders of macrophages.

Reagents

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

Precautions

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

Product Profile

A working dilution of 1:400 was determined by indirect immunoperoxidase labeling of formalin-fixed, paraffin-embedded human tonsil sections.

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

Storage

For continuous use, store at 2-8 °C for up to one month.

For extended storage freeze 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.

References

1. Bhoopat, L., et al., *Blood*, **71**, 1079 (1988).
2. Shin, S., et al., *Hum. Pathol.*, **23**, 686 (1992).

Pcs2/00

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