

Product Information

Product No.C 3080
Lot 045H4818

Monoclonal Anti-Human CDw75

Mouse Ascites Fluid
Immunohistology Grade
Clone LN-1

Monoclonal Anti-Human CDw75 (mouse IgM isotype) is derived from the LN-1 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice. Nuclei from pokeweed mitogen-stimulated human peripheral blood lymphocytes were used as immunogen.¹ The isotype is determined using Sigma ImmunoType™ Kit (Sigma ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Sigma ISO-2). The product is provided as ascites fluid with 0.1% sodium azide (see MSDS)* as a preservative.

Specificity

Monoclonal Anti-Human CDw75 recognizes a α -2,6- sialylated oligosaccharide epitope expressed on mature B cells, in a broad range of epithelial cell types, on erythrocyte precursors and weakly on a subset of T cells.¹⁻⁸ The antibody is reactive in frozen sections and in neutral buffered formalin-fixed or B5 solution-fixed, paraffin-embedded tissues. Microwave treatment of tissue sections may enhance staining by this antibody.

Description

The human CDw75 antigen is a neuraminidase-sensitive carbohydrate determinant, generated by the action of intracellular α -2,6-sialyltransferase. This epitope is present on a 53 kD and 87 kD glycoproteins. It is strongly expressed by mature B cells and more weakly by a T cell subset. Upon activation of B cells its level of expression increases. The antigen is mainly located in the Golgi apparatus but is also detectable on the cell surface of living tonsillar and peripheral blood lymphocytes. A variety of ductal and ciliated epithelial cells from several organs (breast, prostate, kidney, pancreas and lung) and erythrocyte precursors in the bone marrow express CDw75. The antigen is also

present in about 80% of B cell lymphomas, in a minority of T cell lymphomas, in some typical and variant chronic lymphatic leukemia cases, in erythroleukemias and in the lymphocyte predominant type of Hodgkin's disease.³ CDw75 may be detected in a wide variety of non-lymphoid neoplasms such as adenocarcinomas of the breast, stomach, colon and ovary, squamous cell carcinomas of the larynx, transitional cell carcinomas and germ cell carcinomas, glioblastomas and astrocytomas. CDw75 is usually not expressed in B or T cell acute lymphoblastic leukemia and in most cases of nodular sclerosis, mixed cellularity and lymphocyte-depleted Hodgkin's disease. The biological function of CDw75 is presently unknown. It may mediate adhesion between B cells by interacting with the B cell specific CD22 molecule.

Uses

Monoclonal Anti-Human CDw75 may be used for the localization of human CDw75, using various immunochemical assays such as immunohistochemistry and flow cytometry.²

Titer: 1:400

The antibody titer was determined by indirect immunoperoxidase staining 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 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.

* 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 hazardous and safe handling practices.

References

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3. Okon, E., et al., *Cancer*, **56**, 95 (1985).
4. Marder, R., et al., *Lab. Invest.*, **52**, 497 (1985).
5. Linder, J., In: *Advances in Immunohistochemistry*, DeLellis, R. (ed.), p. 277, Raven Press, N.Y. (1988).
6. Leukocyte Typing IV, Knapp, W. (ed.), Workshop number B127, Oxford University Press, Oxford (1989).
7. Yoshino, T., et al., *Acta Med. Okayama*, **44**, 243 (1990).
8. Shin, S., et al., *Hum. Pathol.*, **23**, 686 (1992).