GENE BIO SOLUTION

CD11c (Leu-M5)

Format	Catalog No.	Pack size	Dilution
Concentrated	GB3121A,B	0.1, 0.5 mL	1:100
Prediluted	GB3121AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

CD11c, sometimes referred to as Leu-M5 or Integrin alpha X, is a constituent of the leukointegrin family. CD11c is a cell surface adhesion receptor mostly expressed in tissue macrophages, dendritic cells, monocytes, natural killer cells, and granulocytes. CD11c has demonstrated both sensitivity and specificity for hairy cell leukemia (HCL). CD11c serves as a distinguishing marker for hairy cell leukemia in comparison to other small B-cell lymphomas. Vardiman et al. demonstrated that in cases of hairy cell leukemia (HCL) identified through bone marrow biopsy, nearly all leukemic cells exhibited positivity for CD11c. In a separate research, all instances of hairy cell leukemia exhibited positivity for CD11c and negativity for CD5. A panel comprising CD103, CD11c, CD25, CD5, CD10, and CD23 has been effective in the conclusive diagnosis of hairy cell leukemia. Monocytes in chronic myelomonocytic leukemia have a subset with underexpression of CD11c, perhaps facilitating the detection of the condition. A panel utilizing CD20 and/or DBA.44 alongside either TRAP,CD11c,orAnnexinA1enhancesspecificityintheassessmentofnormal lymphocytes from hairy cell populations.

Dendritic cells are crucial to immunological surveillance. CD11c identifies dendritic cells and was assessed in relation to high-grade cervical intraepithelial neoplasia and prognosis. Specimens exhibiting elevated levels of CD4+ T-cells, CD11c+ dendritic cells, and T-bet+ transcription factors demonstrated a robust connection with good clinical outcomes. A distinct investigation revealed a marked reduction of CD11c positive dendritic cells and a significant increase in macrophages within the skin of immunosuppressed renal transplant recipients, potentially correlating with an elevated risk of squamous cell carcinoma in these individuals.

INTENDED USE -

CD11c (Leu-M5) [5D11] is a murine monoclonal antibody designed for laboratory application in the qualitative detection of CD11c protein via immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical assessment of any staining or its absence must be supplemented by morphological analyses with appropriate controls and should be considered in conjunction with the patient's clinical history and other diagnostic evaluations by a certified pathologist.

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SUMMARY AND EXPLANATION -

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PRINCIPLE OF PROCEDURE -

Antigen detection in tissues and cells is a multi-step immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, a secondary antibody is introduced to attach to the primary antibody. An enzyme label is subsequently introduced to attach to the secondary antibody; the detection of the attached antibody is shown by a colorimetric reaction.

SOURCE - Mouse monoclonal

SPECIES REACTIVITY - Human; others not tested

CLONE- 5D11

ISOTYPE - IgG2a

PROTEIN CONCENTRATION - ~10 mg/ml. Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - CD11c

CELLULAR LOCALISATION - Cell membrane

POSITIVE TISSUE CONTROL - Skin

KNOWN APPLICATIONS - Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

SUPPLIED AS - Buffer with protein carrier and preservative

STORAGE AND STABILITY -

Store at 2ºC to 8ºC. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC.

Materials required but not provided -

1) Positivetissuecontrol- Skin
2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10)Detection system
11)Chromogen
12)Wash buffer
13) Hematoxylin
14)Antibody diluents
15)Peroxide block
16)Light microscope
17)Mounting medium

LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not

applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.

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