CD11c [5D11]

Format	Catalog No.	Pack size	Dilution
Concentrated	G01849 A, B, C	0.1, 0.5, 1.0 mL	1:100 - 200
Prediluted	G01849 AA, BB	6.0, 3.0 mL	Ready to use

ANTIBODY SPECIFICATIONS

- **HOST SPECIES**: Mouse
- **CLONE**: 5D11
- **ISOTYPE**: IgG2a
- **CELLULAR LOCALIZATION**: Cell membrane
- **IMMUNOGEN**: CD11c
- **MOLECULAR WEIGHT**: ~129 kDa
- **SPECIES REACTIVITY:** Human; Others not known.
- **POSITIVE CONTROLS:** Skin

INTENDED USE

This antibody is intended **for research use only (RUO)** and is not approved for diagnostic or therapeutic applications. It is optimized for the detection of CD11c protein in formalin-fixed, paraffin-embedded (FFPE) human tissues by immunohistochemistry (IHC).

SUMMARY AND APPLICATION

A member of the leukointegrin family, CD11c is sometimes referred to as Leu-M5 or Integrin alpha X [5D11]. The cell surface adhesion receptor CD11c is primarily expressed by granulocytes, dendritic cells, monocytes, NK cells, and tissue macrophages. It has been demonstrated that CD11c is both specific and sensitive to hairy cell leukaemia (HCL). Hairy cell leukaemia can be distinguished from other small B-cell lymphomas using CD11c. Vardiman et al. reported that almost all leukemic cells tested positive for CD11c when a bone marrow biopsy revealed HCL. All instances of hairy cell leukaemia in a different investigation had positive CD11c and negative CD5 results. A panel comprising CD103, CD11c, CD25, CD5, CD10, and CD23 has proven helpful in making a conclusive diagnosis of hairy cell leukaemia. Leukaemia with chronic myelomonocytic. Chronic myelomonocytic leukaemia may be diagnosed with the help of monocytes that have a population of monocytes with CD11c underexpression. A panel that uses TRAP, CD11c, Annexin A1, and/or CD20 and/or DBA.44 enhances specificity when distinguishing normal lymphocytes from hairy cells.

SCIENTIFIC BACKGROUND

An important part of immunosurveillance is played by dendritic cells. Dendritic cells are marked by CD11c, which was assessed in relation to the prognosis and high-grade cervical intraepithelial neoplasia. Good clinical results were strongly correlated with specimens that had larger levels of CD4+ T-cells, CD11c+ dendritic cells, and T-bet+ transcription factors. In a different study, immunosuppressed renal transplant recipients' skin showed markedly higher macrophages and much lower CD11c positive dendritic cells, which may be related to their higher risk of developing squamous cell carcinoma.

RECOMMENDED USAGE

- **IHC Protocol Highlights:**
  - Dilution: 1–2 µg/mL
  - Incubation: 30 minutes at room temperature
  - Antigen Retrieval: Heat in 10 mM Tris with 1 mM EDTA (pH 9.0) at 95°C for 45 minutes, followed by cooling
- **Specimen Type**: FFPE sections, preferably ~4 µm

FORMULATION & STORAGE:

- Buffer: 10 mM PBS, 0.05% BSA, 0.05% sodium azide
- Storage:
  - Dilution: 1–2 µg/Ml
  - Without azide: –20 to –80°C
- Shelf Life: 24 months under proper conditions
- Hazard Classification: Non-hazardous; no MSDS required

LIMITATIONS

- Interpretation must be made by a qualified pathologist
- Tissue fixation and handling may affect staining quality
- Negative results do not always indicate absence of antigen—consider panel testing

PRECAUTIONS

- Contains 0.05% sodium azide – avoid ingestion and contact with skin or mucosa
- Wear gloves and avoid contact with eyes or mucosa
- Do not use reagents past expiration or if packaging appears compromised
- Do not pipette by mouth or reuse slides/containers without proper sterilization

TECHNICAL SUPPORT

For technical assistance, please contact Genebio Solution's Technical Support at www.genebiosolution.com