PN IM3611 CD11b-PC5 (BEAR 1)

100 tests
10 µL/test

For Research Use Only. Not For Use In Diagnostic Procedures.

SPECIFICITY

CD11b antigen is refered to under several names i.e.: α-M integrin chain, Mac-1, CR3, iC3bR, or Mo1 (1, 2). It is a type I integral transmembrane glycoprotein of 170 / 165 kDa under reducing / non reducing conditions, respectively. CD11b shows 19 potential N-glycosylation sites (1).
Expression of the CD11b chain on the cell surface requires the presence of the CD18 antigen (also known as β2 integrin chain). Together, these two subunits create the CD11b/CD18 integrin, one of the four integrin heterodimers that can be built by the association of CD18 β chain with four distinctive CD11 α chains. The CD11b/CD18 (αMβeta2) integrin is also called Mac-1.
CD11b/CD18 is highly expressed on NK cells, neutrophils, monocytes and macrophages. Its increased expression on neutrophils has been reported in early-onset neonatal sepsis (3), and in women with pre-eclampsia (4).
Bear1 monoclonal antibody (2) was assigned to the CD11b cluster of differentiation during the 6th Workshop on HLDA Typing in Kobe (Japan) 1996 (1).

REAGENT

Clone	BEAR 1
Isotype	IgG1 Mouse
Immunogen	Purified human monocytes
Hybridoma	SP2/0-Ag 14 x Balb/c spleen cells
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	The Ig is conjugated to a tandem dye constituted of R-phycoerythrin covalently linked to cyanin 5.1 (PC5) at 0.5 - 1.5 moles of PC5 per mole of Ig. Excitation wavelength: 488 nm Maximum emission wavelength: 670 nm Main emission color: Deep-red
Buffer	2 mg/mL bovine serum albumin in phosphate-buffered saline containing 0.1% sodium azide.

APPLICATION

Flow Cytometry (5, 6).

STATEMENT OF WARNINGS

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
2. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.

STORAGE CONDITIONS AND STABILITY

Each reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze. Minimize exposure to light.

REAGENT PREPARATION

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

PROCEDURE

This reagent is designed for Flow Cytometry.
Assay volume: 10 µL per 5 x 10^5 cells in one test, or per 100 µL whole blood.
A wash is required to yield optimal results.

SELECTED RESEARCH REFERENCES

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3. [5621] Nupponen, I., Anderson, S., Järvenpää, A.L., Kautiainen, H., Repo, H, "Neutrophil CD11b Expression and circulating Interleukin-8 as diagnostic markers for early-onset neonatal sepsis", 2001, Pediatrics, 108, 1-6
4. [5622] Wang, Y., Gu, Y., Philibert, L., Lucas, M.J, "Neutrophil activation induced by placental factors in normal and pre-eclamptic pregnancies in vitro", 2001, Placenta, 22, 560-565
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6. [5624] Ancuta, P., Weiss, L., Haeffner-Cavaillon, N., "CD14+CD16+ cells derived in vitro from peripheral blood monocytes exhibit phenotypic and functional dendritic cell_like characteristics", 2000, Eur. J.Immunol, 30, 1872-1883

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