

Macrophage-1 antigen

From Wikipedia, the free encyclopedia

Macrophage-1 antigen (or **integrin $\alpha_M\beta_2$** or **macrophage integrin** or **Mac-1**) is a complement receptor ("CR3") consisting of **CD11b (integrin α_M)** and CD18 (integrin β_2).^[1]

It binds to iC3b and C4b.

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Function

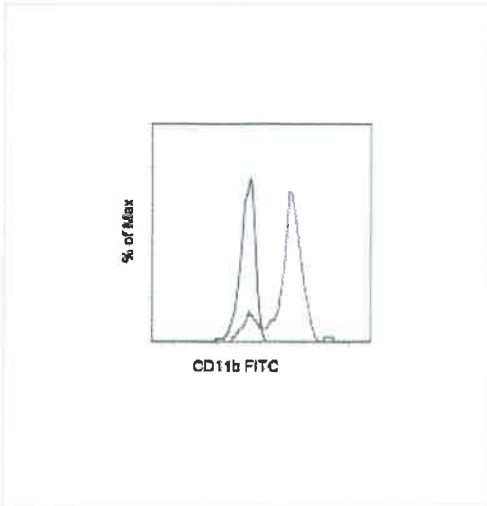
Complement receptor 3 (CR3)(CD11b/CD18) is a human cell surface receptor found on polymorphonuclear leukocytes (mostly neutrophils), NK cells, and mononuclear phagocytes like macrophages. CR3 is a pattern recognition receptor, capable of recognizing and binding to many molecules found on the surfaces of invading bacteria. CR3 also recognizes iC3b when bound to the surface of foreign cells. Binding to the receptor causes phagocytosis and destruction of the foreign cell.

CR3 belongs to a family of cell surface receptors known as integrins (because they share this particular β chain, they are referred to as β_2 -integrins), which are extremely widely distributed throughout nature and which generally are important in cellular adhesion and cell-cell interactions in a variety of cells and circumstances.

Upregulation of Mac-1 in the presence of certain factors such as IL-2 may cause a prolongation of the life of the immune cell while the presence of TNF- α induces apoptosis and selective removal of the cell.

A fully activated neutrophil may express on its membrane 200,000 or more CR3 molecules.

Absence of CR3 results in reduced binding and ingestion of *Mycobacterium tuberculosis* in mice. In human mononuclear phagocytes, phagocytosis of *Mycobacterium tuberculosis* is mediated in part by human monocyte complement receptors including CR3.^[2]

[Home](#) / [Anti-Human CD11b FITC](#)


Anti-Human CD11b FITC

Also known as: Integrin alpha M, Mac-1 alpha, Complement Receptor 3 alpha

Clone: ICRF44

RUO: For Research Use Only. Not for use in diagnostic procedures.

Cat. No.	Size	Price	Qty
11-0118-41	25 tests	\$89.00	<input type="text" value="0"/>
11-0118-42	100 tests	\$189.00	<input type="text" value="0"/>

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Anti-Human CD11b (Mac-1alpha) FITC

Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control FITC (cat... [View More](#))



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Host	Mouse
Isotype	IgG1, kappa
Reactivity	Baboon, Chimpanzee, Human, Rhesus
Conjugate	FITC
Laser	Blue Laser
Excite	488 nm
Reported Applications	Flow Cytometric Analysis

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Antigens	Area of Biology	Cell Type	Formats
CD11b	Adhesion & Migration Innate Immunity Angiogenesis Microbiota	Macrophage & Monocyte Cells NK & NKT Cells	FITC

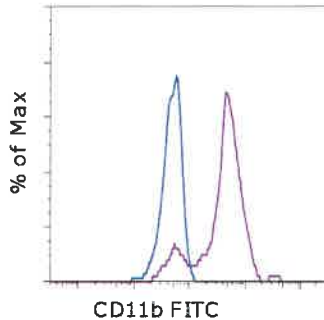
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Anti-Human CD11b FITC

Catalog Number: 11-0118

Also known as: Integrin alpha M, Mac-1 alpha, Complement Receptor 3 alpha

RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control FITC (cat. 11-4714) (blue histogram) or Anti-Human CD11b FITC (purple histogram).

Product Information

Contents: Anti-Human CD11b FITC
Catalog Number: 11-0118
Clone: ICRF44
Concentration: 5 uL (0.5 ug)/test
Host/Isotype: Mouse IgG1, kappa
HLDA Workshop: IV M047

REF



LOT



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.
Batch Code: Refer to vial
Use By: Refer to vial
Caution, contains Azide

Description

The ICRF44 monoclonal antibody reacts with human CD11b, a 165 kDa adhesion molecule. CD11b associated with integrin beta2 (CD18) is expressed on the surface of monocytes, granulocytes, activated lymphocytes and a subset of NK cells. CD11b is a receptor for intercellular adhesion molecule family members CD54, CD102 and CD50 as well as for iC3b. These adhesions are crucial in cell-cell and cell-matrix interactions.

Applications Reported

This ICRF44 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This ICRF44 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.5 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

References

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