

## GMP PE anti-human CD11b Antibody

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|------------------------|--|
| <b>Catalog# / Size</b> | 260042 / 100 tests   |
| <b>Clone</b>           | ICRF44   |
| <b>Workshop</b>        | IV M047  |
| <b>Other Names</b>     | Integrin $\alpha$ M chain, C3biR, CR3, Mac-1, Mo1, ITGAM   |
| <b>Isotype</b>         | Mouse IgG1, $\kappa$   |
| <b>Description</b>     | CD11b is a 165-170 kD type I transmembrane glycoprotein also known as $\alpha$ M integrin, Mac-1, CR3, and C3biR. CD11b non-covalently associates with integrin $\beta$ 2 (CD18) and is expressed on granulocytes, monocytes/macrophages, dendritic cells, NK cells, and subsets of T and B cells. CD11b/CD18 is critical for the transendothelial migration of monocytes and neutrophils. It is also involved in granulocyte adhesion, phagocytosis, and neutrophil activation. CD11b/CD18 interacts with ICAM-1 (CD54), ICAM-2 (CD102), ICAM-4, CD14, CD23, heparin, iC3b, fibrinogen, and factor X. |

### Product Details

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|---|--|
| <b>Reactivity</b>                                 | Human  |
| <b>Antibody Type</b>                              | Monoclonal   |
| <b>Host Species</b>                               | Mouse  |
| <b>Formulation</b>                                | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).  |
| <b>Preparation</b>                                | The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.  |
| <b>Concentration</b>                              | 200 $\mu$ g/mL   |
| <b>Storage &amp; Handling</b>                     | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze</b> .   |
| <b>Application</b>                                | <a href="#">FC - Quality tested</a>  |
| <b>Recommended Usage</b>                          | Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ L per million cells in 100 $\mu$ L staining volume or 5 $\mu$ L per 100 $\mu$ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.  |
| <b>Excitation Laser</b>                           | Blue Laser (488 nm)<br>Green Laser (532 nm)/Yellow-Green Laser (561 nm)  |
| <b>Application Notes</b>                          | <p>The ICRF44 antibody inhibits heterotypic adhesion of granulocytes in response to fMLP. Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections, immunofluorescence microscopy<sup>5</sup>, stimulation of monocytes<sup>3</sup>, blocking of heterotypic PMN aggregation<sup>8</sup>, and blocking of granulocyte activation<sup>12</sup>. This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue.</p> <p>The Ultra-LEAF<sup>™</sup> purified antibody (Endotoxin &lt; 0.01 EU/<math>\mu</math>g, Azide-Free, 0.2 <math>\mu</math>m filtered) is recommended for functional assays (Cat. Nos. 301361 &amp; 301362).</p> |
| <b>Application References</b>                     | <ol style="list-style-type: none"> <li>Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York.</li> <li>Barclay N, <i>et al.</i> 1997. The Leucocyte Antigen Facts Book. Academic Press Inc. San Diego.</li> <li>Rezzonico R, <i>et al.</i> 2001. <i>Blood</i> 97:2932. (Stim)</li> <li>Marsik C, <i>et al.</i> 2003. <i>Shock</i> 20:493. (FC)</li> <li>David A, <i>et al.</i> 2003. <i>J. Leukoc. Biol.</i> 74:551. (IF)</li> <li>Charles N, <i>et al.</i> 2010. <i>Nat. Med.</i> 16:701. (FC) <a href="#">PubMed</a></li> </ol>   |
| <b>(PubMed link indicates BioLegend citation)</b> |  |

7. Thurlow LR, *et al.* 2010. *Infect. Immun.* 128:1128. (FC) [PubMed](#)
8. Jadhav S, *et al.* 2001. *J. Immunol.* 167:5986. (Block)
9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
10. Sestak K, *et al.* 2007. *Vet. Immunol. Immunopathol.* 119:21. (FC)
11. Wen T, *et al.* 2014. *J Immunol.* 192:5481. (FC) [PubMed](#)
12. Sprong T, *et al.* 2003. *Blood* 102:3702. (Block)
13. Cash JL, *et al.* 2013. *EMBO Rep.* 14:999. (FC) [PubMed](#)
14. Larsson K, *et al.* 2015. *PNAS.* [PubMed](#)

#### Disclaimer

**GMP RUO Flow Cytometry Antibodies.** BioLegend GMP RUO fluorophore conjugated antibodies are manufactured in a dedicated GMP facility and compliant with ISO 13485:2016. For research use only. Not for use in diagnostic or therapeutic procedures. Our processes include:

- Batch-to-batch consistency
- Material traceability
- Documented procedures
- Documented employee training
- Equipment maintenance and monitoring records
- Lot-specific certificates of analysis
- Quality audits per ISO 13485:2016
- QA review of released products

## Antigen Details

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|---------------------------|--|
| <b>Structure</b>          | Integrin, type I transmembrane glycoprotein, associates with integrin $\beta_2$ (CD18), 165-170 kD                         |
| <b>Distribution</b>       | Granulocytes, monocytes/macrophages, dendritic cells, NK cells, subset of T cells, subset of B cells                       |
| <b>Function</b>           | Adhesion, phagocytosis, chemotaxis, neutrophil activation  |
| <b>Ligand/Receptor</b>    | ICAM-1(CD54), ICAM-2 (CD102), ICAM-4, CD14, CD23, heparin, iC3b, fibrinogen, factor X                                      |
| <b>Cell Type</b>          | B cells, Dendritic cells, Granulocytes, Macrophages, Monocytes, Neutrophils, NK cells, T cells, Tregs                      |
| <b>Biology Area</b>       | Cell Adhesion, Cell Biology, Costimulatory Molecules, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers |
| <b>Molecular Family</b>   | Adhesion Molecules, CD Molecules   |
| <b>Antigen References</b> | 1. Stewart M, <i>et al.</i> 1995. <i>Curr Opin Cell Biol.</i> 7:690-6.   |
| <b>Gene ID</b>            | <a href="#">3684</a>   |

## Related Protocols

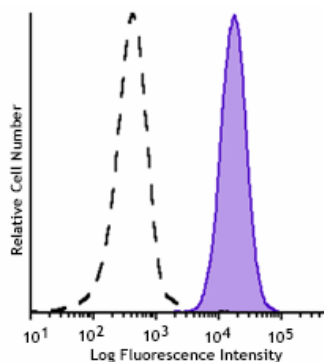
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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

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APC anti-human CD11b, Biotin anti-human CD11b, PE anti-human CD11b, PE/Cyanine5 anti-human CD11b, Purified anti-human CD11b, Pacific Blue™ anti-human CD11b, Alexa Fluor® 488 anti-human CD11b, Alexa Fluor® 647 anti-human CD11b, PE/Cyanine7 anti-human CD11b, PerCP/Cyanine5.5 anti-human CD11b, Brilliant Violet 421™ anti-human CD11b, Brilliant Violet 570™ anti-human CD11b, FITC anti-human CD11b, Brilliant Violet 605™ anti-human CD11b, Brilliant Violet 510™ anti-human CD11b, Brilliant Violet 650™ anti-human CD11b, Purified anti-human CD11b (Maxpar® Ready), Alexa Fluor® 594 anti-human CD11b, APC/Cyanine7 anti-human CD11b, Brilliant Violet 711™ anti-human CD11b, Brilliant Violet 785™ anti-human CD11b, PE/Dazzle™ 594 anti-human CD11b, APC/Fire™ 750 anti-human CD11b, TotalSeq™-A0161 anti-human CD11b, Alexa Fluor® 700 anti-human CD11b, TotalSeq™-B0161 anti-human CD11b, TotalSeq™-C0161 anti-human CD11b, Ultra-LEAF™ Purified anti-human CD11b, TotalSeq™-D0161 anti-human CD11b, GMP PE/Cyanine7 anti-human CD11b



Typical results from human peripheral blood granulocytes stained either with ICRF44 PE used at 5  $\mu$ L/test (filled histogram) or with an isotype control (open histogram).

Symbols Glossary\*

| Symbol     | Meaning   | Symbol Title               | Symbol No. | Symbol               | Meaning  | Symbol Title  | Symbol No. |
|------------|---|----------------------------|------------|----------------------|--|---|------------|
| <b>REF</b> | Catalog number  | Catalogue number           | 5.1.6      |                      | Indicates the need for the user to consult the instructions for use.                             | Consult instructions for use                        | 5.4.3      |
|            | Indicates the temperature limits to which the medical device can be safely exposed.         | Temperature limit          | 5.3.7      |                      | Indicates a medical device that needs protection from light sources.                             | Keep away from sunlight                             | 5.3.2      |
|            | Indicates the upper limit of temperature to which the medical device can be safely exposed. | Upper limit of temperature | 5.3.6      |                      | Indicates the date after which the medical device is not to be used.                             | Use-by date   | 5.1.4      |
|            | Indicates the medical device manufacturer.  | Manufacturer               | 5.1.1      | <b>EC</b> <b>REP</b> | Indicates the authorized representative in the European Community.                               | Authorized representative in the European Community | 5.1.2      |
| <b>LOT</b> | Indicates the manufacturer's batch code so that the batch or lot can be identified.         | Batch code                 | 5.1.5      | <b>IVD</b>           | Indicates a medical device that is intended to be used as an in vitro diagnostic medical device. | <i>In vitro</i> diagnostic medical device           | 5.5.1      |

\* Symbol information is from EN ISO 15223-1:2016 Medical devices – Symbols to be used with medical device labels, labelling and information to be supplied – Part 1: General requirements

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