GMP PerCP/Cyanine5.5 anti-human CD11b Antibody

Catalog# / Size	260126 / 100 tests
Clone	ICRF44
Other Names	Integrin αM chain, C3biR, CR3, Mac-1, Mo1, ITGAM
Isotype	Mouse IgG1, κ
Description	CD11b is a 165-170 kD type I transmembrane glycoprotein also known as α_M integrin, Mac-1, CR3, and C3biR. CD11b non-covalently associates with integrin β_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

Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing True-Stain Monocyte Blocker™, 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.
Concentration	200 µg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze**.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
Excitation Laser	Blue Laser (488 nm)
Application Notes	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[5], stimulation of monocytes[3], blocking of heterotypic PMN aggregation[8], and blocking of granulocyte activation[12]. This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. Nos. 301361 & 301362).

Application References

(PubMed link indicates BioLegend citation)

1. Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York.
2. Barclay N, *et al.* 1997. The Leucocyte Antigen Facts Book. Academic Press Inc. San Diego.
3. Rezzonico R, *et al.* 2001. *Blood* 97:2932. (Stim)
4. Marsik C, *et al.* 2003. *Shock* 20:493. (FC)
5. David A, *et al.* 2003. *J. Leukoc. Biol.* 74:551. (IF)
6. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) PubMed
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

Structure	Integrin, type I transmembrane glycoprotein, associates with integrin β_2 (CD18), 165-170 kD
Distribution	Granulocytes, monocytes/macrophages, dendritic cells, NK cells, subset of T cells, subset of B cells
Function	Adhesion, phagocytosis, chemotaxis, neutrophil activation
Ligand/Receptor	ICAM-1(CD54), ICAM-2 (CD102), ICAM-4, CD14, CD23, heparin, iC3b, fibrinogen, factor X
Cell Type	B cells, Dendritic cells, Granulocytes, Macrophages, Monocytes, Neutrophils, NK cells, T cells, Tregs
Biology Area	Cell Adhesion, Cell Biology, Costimulatory Molecules, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Stewart M, *et al.* 1995. *Curr Opin Cell Biol.* 7:690.
Gene ID	3684

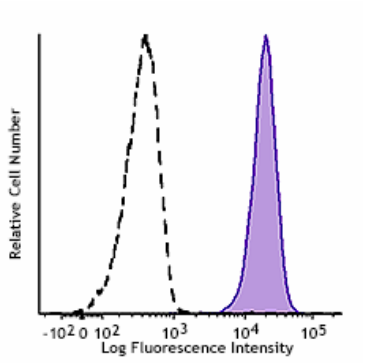
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats

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, GMP PE anti-human CD11b

Product Data



Typical results from human peripheral blood granulocytes stained either with ICRF44 PerCP/Cyanine5.5 used at 5 µL/test (filled histogram) or with an isotype control (open histogram).

Symbols Glossary*

Symbol	Meaning	Symbol Title	Symbol No.	Symbol	Meaning	Symbol Title	Symbol No.
REF	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	EC REP	Indicates the authorized representative in the European Community.	Authorized representative in the European Community	5.1.2
LOT	Indicates the manufacturer's batch code so that the batch or lot can be identified.	Batch code	5.1.5	IVD	Indicates a medical device that is intended to be used as an in vitro diagnostic medical device.	*In vitro* 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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