

APC anti-human CD11b (activated) Antibody

Catalog# / Size	301409 / 25 tests 301410 / 100 tests
Clone	CBRM1/5
Regulatory Status	RUO
Other Names	Integrin α_M chain, C3biR, CR3, Mac-1, Mo1, ITGAM
Isotype	Mouse IgG1, κ
Description	The CBRM1/5 antibody reacts with an activated form of human CD11b, 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 as well as 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

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with APC under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood.
Excitation Laser	Red Laser (633 nm)
Application Notes	The CBRM1/5 antibody recognizes a subset of CD11b molecules on neutrophils and monocytes activated with chemoattractants or phorbol-esters. This antibody does not recognize "non-activated" CD11b. The epitope recognized by CBRM1/5 is contained in the I domain of the α chain. Clone CBRM1/5 binds the I domain, close to the ligand binding site. It recognizes a conformational change of the integrin ⁹ . Additional reported applications (for the relevant formats) include: immunoprecipitation, and blocking cell adhesion to fibrinogen and ICAM-1 ¹ . The CBRM1/5 antibody binds specifically to the activated form of CD11b. The LEAF™ purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for functional assays (Cat. No. 301408).

Application References

(PubMed link indicates BioLegend citation)

1. Diamond M, *et al.* 1993. *J. Cell Biol.* 120:545. (Block)
2. Bryn T, *et al.* 2006. *J. Immunol.* 176:7361. [PubMed](#)
3. Sithu SD, *et al.* 2007. *J. Biol. Chem.* doi:10.1074/jbc.M611273200.
4. Barthel SR, *et al.* 2006. *Am J. Respir Cell Mol Biol.* 35:378. [PubMed](#)
5. Pillay J, *et al.* 2010. *J. Leukocyte Biol.* 88:211. [PubMed](#)
6. Wilson RP, *et al.* 2011. *Infect Immun.* 79:830. [PubMed](#)
7. Koleva RI, *et al.* 2012. *Blood.* 119:4878. [PubMed](#).
8. Eleftherious D, *et al.* 2012. *Neurology.* 79:2089. [PubMed](#)

9. Oxvig C, *et al.* 1999. *Proc. Natl. Acad. Sci. USA* 96:2215.
10. Muller-Edenborn B, *et al.* 2014. *Br J Anaesth.* [PubMed](#)
11. Cash JL, *et al.* 2013. *EMBO Rep.* 14:999. (FC) [PubMed](#)

Product Citations

1. Sander J *et al.* 2017. *Immunity.* 47(6):1051-1066 . [PubMed](#)
2. Kimbrough D, *et al.* 2018. *J Mol Cell Cardiol.* 119:51. [PubMed](#)
3. Caiado F, *et al.* 2013. *Cancer Res.* 73:4233. [PubMed](#)
4. Bratcher P, *et al.* 2016. *J Cystic Fibrosis.* 15: 67-73. [PubMed](#)
5. Johnson C, *et al.* 2017. *J Immunol.* 198(1):318-334. [PubMed](#)

RRID

AB_2129245 (BioLegend Cat. No. 301409)
 AB_2280647 (BioLegend Cat. No. 301410)

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, T cell subset, B cell subset
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, NK cells, T cells, Tregs
Biology Area	Cell Adhesion, Cell Biology, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers, Costimulatory Molecules
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Stewart M, <i>et al.</i> 1995. <i>Curr. Opin. Cell Biol.</i> 7:690. 2. Petty H, <i>et al.</i> 1996. <i>Immunol. Today</i> 17:209.
Gene ID	3684

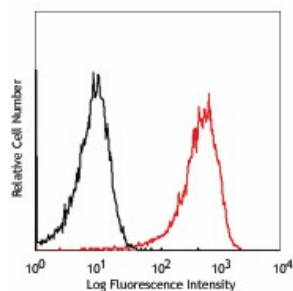
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE/Cyanine7 anti-human CD11b (activated), FITC anti-human CD11b (activated), PE anti-human CD11b (activated), Purified anti-human CD11b (activated), APC anti-human CD11b (activated), Alexa Fluor® 647 anti-human CD11b (activated), APC/Fire™ 750 anti-human CD11b (activated), PerCP/Cyanine5.5 anti-human CD11b (activated), Biotin anti-human CD11b (activated), PE/Dazzle™ 594 anti-human CD11b (activated), Ultra-LEAF™ Purified anti-human CD11b (activated)

Product Data



PMA-stimulated (5 minutes) human peripheral blood granulocytes stained with CBRM1/5 APC.

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