

Anti-Human CD11b Antibody, Clone ICRF44, Biotin



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Antibodies

Mouse monoclonal IgG1 antibody
against human, rhesus, cynomolgus
CD11b, biotin-conjugated

Catalog #60040BT
#60040BT.1

100 µg 0.5 mg/mL
25 µg 0.5 mg/mL

Product Description

The ICRF44 antibody reacts with an extracellular epitope on CD11b (integrin α M), an ~170 kDa type 1 transmembrane glycoprotein which associates non-covalently with CD18 to form the heterodimeric Mac-1 receptor. Through its interactions with ligands such as ICAM-1 (CD54), ICAM-2 (CD102), ICAM-4 (CD242), iC3b, heparin, and fibrinogen, Mac-1 influences several processes, including the adherence of neutrophils and monocytes to stimulated endothelium, and phagocytosis of complement-coated particles. CD11b is expressed on the surface of granulocytes, monocytes, NK cells, dendritic cells, tissue macrophages, and subsets of T and B cells, and has been used as a marker to distinguish naïve and memory CD8+ T cells. CD11b is a relatively late marker for myeloid differentiation, and is undetectable on most myelomonocytic hematopoietic progenitor cells and more primitive cells. Certain mutations in CD11b give rise to the disorder systemic lupus erythematosus. The ICRF44 antibody reportedly inhibits leukocyte aggregation in response to the chemoattractant fMLP.

Target Antigen Name:	CD11b
Alternative Names:	C3biR, CR3, Integrin α M chain, Mac-1, MAC1, Mo1
Gene ID:	3684
Species Reactivity:	Human, Rhesus, Cynomolgus, Baboon, Chimpanzee, Common Marmoset, Pig
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	ICRF44
Isotype:	IgG1, kappa
Immunogen:	Human rheumatoid synovial cells and monocytes
Conjugate:	Biotin

Applications

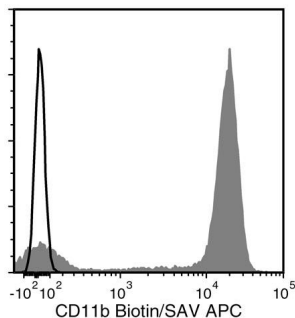
Verified:	FC
Reported:	FC, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Monocyte Enrichment Kit (Catalog #19059), and for labeling human mesenchymal cells grown in MesenCult™ Proliferation Kit (Human; Catalog #05411).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry, the suggested use of this antibody is $\leq 1 \mu\text{g}$ per 1×10^6 cells in 100 μL . It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human whole blood nucleated cells labeled with Anti-Human CD11b Antibody, Clone ICRF44, Biotin, followed by streptavidin (SAV) APC (filled histogram), or a biotinylated mouse IgG1, kappa isotype control antibody, followed by SAV APC (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Charles N et al. (2010) Basophils and the T helper 2 environment can promote the development of lupus nephritis. *Nat Med* 16(6): 701–7. (FC)
2. Moreau A et al. (2009) Tolerogenic dendritic cells actively inhibit T cells through heme oxygenase-1 in rodents and in nonhuman primates. *FASEB J* 23(9): 3070–7. (FC)
3. Sotiriou SN et al. (2006) Lipoprotein(a) in atherosclerotic plaques recruits inflammatory cells through interaction with Mac-1 integrin. *FASEB J* 20(3): 559–61. (IHC)
4. Sengoku K et al. (2004) Integrins are not involved in the process of human sperm-oolemmal fusion. *Hum Reprod* 19(3): 639–44. (ICC, IF)
5. David A et al. (2003) Interaction of proteinase 3 with CD11b/CD18 (beta2 integrin) on the cell membrane of human neutrophils. *J Leukoc Biol* 74(4): 551–7. (IF)
6. Marsik C et al. (2003) Regulation of Fas (APO-1, CD95) and Fas ligand expression in leukocytes during systemic inflammation in humans. *Shock* 20(6): 493–6. (Blocking, FA)
7. Jadhav S et al. (2001) Hydrodynamic shear regulates the kinetics and receptor specificity of polymorphonuclear leukocyte-colon carcinoma cell adhesive interactions. *J Immunol* 167(10): 5986–93. (Blocking, FA)
8. Rezzonico R et al. (2001) Ligation of CD11b and CD11c beta(2) integrins by antibodies or soluble CD23 induces macrophage inflammatory protein 1alpha (MIP-1alpha) and MIP-1beta production in primary human monocytes through a pathway dependent on nuclear factor-kappaB. *Blood* 97(10): 2932–40. (Blocking, FA)
9. Yoshino N et al. (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of cynomolgus monkeys (*Macaca fascicularis*) by using anti-human cross-reactive antibodies. *Exp Anim* 49(2): 97–110. (FC)
10. Kishimoto T et al. (Eds.). (1998) *Leucocyte Typing VI: White cell differentiation antigens* (pp. 1117–8). New York: Garland Publishing Inc.

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2022 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, MesenCult, and EasySep are trademarks of STEMCELL Technologies Canada Inc. CyTOF is a registered trademark of Fluidigm Corporation. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.