Anti-Human CD11b Antibody, Clone ICRF44, Biotin

Antibodies

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

Catalog #60040BT 100 μg 0.5 mg/mL



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Product Description

ICRF44 antibody reacts with an extracellular epitope on CD11b (integrin αM), 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 it 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 αM 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: CellSep, FC

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; IHC-P: Immunohistochemistry (paraffin-embedded); 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 ≤ 1 µg per 1 x 10^6 cells in 100 µL. It is recommended

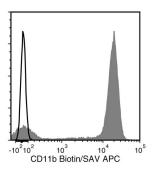
that the antibody be titrated for optimal performance for each application.

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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

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.

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.

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.

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.

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.

Sengoku K et al. (2004) Integrins are not involved in the process of human sperm-oolemmal fusion. Hum Reprod 19(3): 639–44.

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.

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.

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