Anti-Mouse CD44 Antibody, Clone IM7

Antibodies

Rat monoclonal IgG2b antibody against human, mouse, rhesus CD44, unconjugated (Tissue Non-Specific

Alkaline Phosphatase)

Catalog #60068 #60068.1 500 μg 0.5 mg/mL 50 μg 0.5 mg/mL



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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

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Product Description

The IM7 antibody reacts with CD44 (Ly-24), an ~80 - 95 kDa type 1 transmembrane glycoprotein involved in cell-cell and cell-matrix interactions. CD44 is expressed on the surface of many cells, including leukocytes, hepatocytes, endothelial, epithelial, and mesenchymal cells. Expression levels increase upon activation of T and B cells, and memory cells exhibit a CD44[High] phenotype. CD44 binds many ligands, including hyaluronic acid, collagen, fibronectin, growth factors and metalloproteinases, thus modulating processes such as lymphocyte activation, recirculation and homing, leukocyte rolling and aggregation, hematopoiesis, and tumor metastasis. Numerous disorders are associated with altered expression or dysfunction of CD44. Many CD44 isoforms have been identified, with alternative splicing, differential N- and O- glycosylation, and sulfation mediating the functional role(s) played by the protein in a specific cell. The IM7 monoclonal antibody reacts with an extracellular epitope found on all isoforms of CD44 and both murine allotypes.

Target Antigen Name: CD44

Alternative Names: ECMR III, gp85, H-CAM, Hermes, HUTCH-1, Ly-24, Ly24, Pgp-1

Gene ID: 12505/960

Species Reactivity: Human, Mouse, Rhesus, Cynomolgus, Baboon, Chimpanzee, Squirrel Monkey, Cat, Cow, Dog, Horse, Pig

Host Species: Rat

Clonality: Monoclonal

Clone: IM7

Isotype: IgG2b, kappa

Immunogen: Dexamethasone-induced cells from the SJL mouse spontaneous myeloid leukemia M1

Conjugate: Unconjugated

Applications

Verified: CellSep, FC

Reported: Blocking, CyTOF®, ELISA, FA, FC, ICC, IF, IHC, IP

Special Applications: This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including

EasySep™ Mouse CD4+ T Cell Isolation Kit (19852), EasySep™ Mouse CD4+CD62L+ T Cell Isolation Kit

(Catalog #18765) and EasySep™ Human Naïve CD4+ T Cell Isolation Kit (Catalog #19555).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide

Purification: The antibody was purified by affinity chromatography.

Stability and Storage: Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact

techsupport@stemcell.com.

Directions for Use: For flow cytometry the suggested use of this antibody is ≤0.5 µg per 1 x 10e6 cells in 100 µL volume. It is

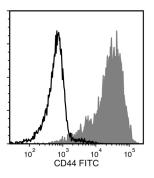
recommended that the antibody be titrated for optimal performance for each application.

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Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs; gated on lymphocytes) labeled with Anti-Mouse CD44 Antibody, Clone IM7, followed by a goat polyclonal anti-mouse IgG antibody, FITC (filled histogram), or a rat IgG2b, kappa isotype control antibody followed by a goat polyclonal anti-mouse IgG antibody, FITC (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, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

- 1. Trowbridge IS, et al. Biochemical characterization and cellular distribution of a polymorphic, murine cell-surface glycoprotein expressed on lymphoid tissues. Immunogenetics 15(3):299-312, 1982 (FA, ICC, IF, IP)
- 2. Budd RC, et al. Distinction of virgin and memory T lymphocytes. Stable acquisition of the Pgp-1 glycoprotein concomitant with antigenic stimulation. J Immunol 138(10): 3120-29, 1987 (IP)
- 3. Picker LJ, et al. Monoclonal antibodies against the CD44 [ln(Lu)-related p80], and Pgp-1 antigens in man recognize the Hermes class of lymphocyte homing receptors. J Immunol 142(6): 2046-51, 1989
- 4. Camp RL, et al. CD44 is necessary for optimal contact allergic responses but is not required for normal leukocyte extravasation. J Exp Med 178(2): 497-507, 1993 (Blocking, FA)
- 5. Katoh S, et al. Characterization of soluble CD44 in the circulation of mice. Levels are affected by immune activity and tumor growth. J Immunol 153(8): 3440-49, 1994 (ELISA)
- 6. Cuff CA, et al. The adhesion receptor CD44 promotes atherosclerosis by mediating inflammatory cell recruitment and vascular cell activation.
- J Clin Invest 108(7): 1031-40, 2001 (IHC)
- 7. Cichy J, Pure E. The liberation of CD44. J Cell Biol 161(5): 839-43, 2003
- 8. Naor D, Nedvetzki S. CD44 in rheumatoid arthritis. Arthritis Res Ther 5(3): 105-15, 2003
- 9. Ponta H, et al. CD44: From adhesion molecules to signalling regulators. Nat Rev Mol Cell Biol 4(1): 33-45, 2003
- 10. Kenna TJ, et al. Steady-state dendritic cells expressing cognate antigen terminate memory CD8+ T-cell responses. Blood 111(4): 2091-100, 2008

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