

Anti-Mouse CD44 Antibody, Clone IM7, PE



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

Rat monoclonal IgG2b antibody
against human, mouse, rhesus CD44
(tissue non-specific alkaline
phosphatase), PE-conjugated

Catalog #60068PE
#60068PE.1

100 Tests 5 µL/test
25 Tests 5 µL/test

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 and hepatocytes, as well as 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, Ly24, Ly-24, 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:	PE (Phycoerythrin)

Applications

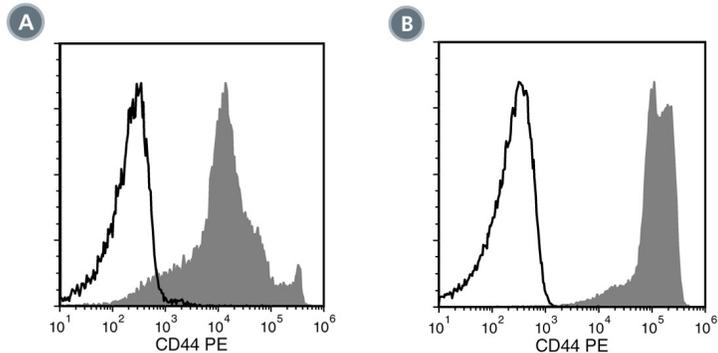
Verified:	CellSep, FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse CD4+ T Cell Isolation Kit (Catalog #19852), EasySep™ Mouse CD4+CD62L+ T Cell Isolation Kit (Catalog #18765), and EasySep™ Human Naïve CD4+ T Cell Isolation Kit (Catalog #19555).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; 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 solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry, the suggested use of this antibody is 5 µL per 1 × 10 ⁶ cells in 100 µL or per 100 µL of whole blood. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD44 Antibody, Clone IM7, PE (filled histogram) or a rat IgG2b, kappa PE isotype control antibody (solid line histogram).

(B) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Mouse CD44 Antibody, Clone IM7, PE (filled histogram) or a rat IgG2b, kappa PE isotype control antibody (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

- Freeman SA et al. (2018) Transmembrane pickets connect cyto- and pericellular skeletons forming barriers to receptor engagement. *Cell* 172(1–2): 305–17. (WB)
- Bostad M et al. (2014) Light-triggered, efficient cytosolic release of IM7-saporin targeting the putative cancer stem cell marker CD44 by photochemical internalization. *Mol Pharm* 11(8): 2764–76. (FA, ICC, IF)
- Fedorchenko O et al. (2013) CD44 regulates the apoptotic response and promotes disease development in chronic lymphocytic leukemia. *Blood* 121(20): 4126–36. (FA, FC, WB)
- Mott PJ & Lazarus AH. (2013) CD44 antibodies and immune thrombocytopenia in the amelioration of murine inflammatory arthritis. *PLoS ONE* 8(6): e65805. (FA)
- Kenna TJ et al. (2008) Steady-state dendritic cells expressing cognate antigen terminate memory CD8+ T-cell responses. *Blood* 111(4): 2091–100. (FACS, FC)
- Naor D & Nedvetzki S. (2003) CD44 in rheumatoid arthritis. *Arthritis Res Ther* 5(3): 105–15. (FA/Blocking)
- Cuff CA et al. (2001) The adhesion receptor CD44 promotes atherosclerosis by mediating inflammatory cell recruitment and vascular cell activation. *J Clin Invest* 108(7): 1031–40. (IHC)
- Katoh S et al. (1994) Characterization of soluble CD44 in the circulation of mice. Levels are affected by immune activity and tumor growth. *J Immunol* 153(8): 3440–9. (ELISA)
- Camp RL et al. (1993) CD44 is necessary for optimal contact allergic responses but is not required for normal leukocyte extravasation. *J Exp Med* 178(2): 497–507. (Blocking, FA)
- Picker LJ et al. (1989) Monoclonal antibodies against the CD44 [In(Lu)-related p80], and Pgp-1 antigens in man recognize the Hermes class of lymphocyte homing receptors. *J Immunol* 142(6): 2046–51. (WB)
- Budd RC et al. (1987) Distinction of virgin and memory T lymphocytes. Stable acquisition of the Pgp-1 glycoprotein concomitant with antigenic stimulation. *J Immunol* 138(10): 3120–9. (IP)
- Trowbridge IS et al. (1982) Biochemical characterization and cellular distribution of a polymorphic, murine cell-surface glycoprotein expressed on lymphoid tissues. *Immunogenetics* 15(3): 299–312. (FA, ICC, IF, IP)

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2018 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, and EasySep are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. Alexa Fluor is a registered trademark of Life Technologies Corporation. Antibodies conjugated to Alexa Fluor® are licensed for internal research use only and sale is expressly conditioned on the buyer not using the antibody for manufacturing, performing a service or medical test, or otherwise generating revenue. For use other than research, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@lifetech.com. 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.