

Pacific Blue™ anti-mouse/human CD44

Catalog # / Size: 1115095 / 25 µg
1115100 / 100 µg

Clone: IM7

Isotype: Rat IgG2b, κ

Immunogen: Dexamethasone-induced myeloid leukemia M1 cells

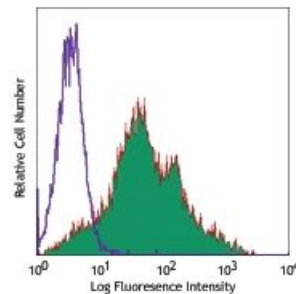
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™ .

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

C57BL/6 Mouse Splenocytes stained with IM7 Pacific Blue™

Concentration: 0.5



Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. The suggested use of this reagent is ≤ 0.25 microg per 10⁶ cells in 100 microL volume. It is highly recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

Application Notes: Clone IM7 has been reported to recognize an epitope common to alloantigens and all isoforms of CD44^{17,18} that is located between amino acids 145 and 186²⁰. This clone has been verified for immunocytochemistry (ICC) and frozen immunohistochemistry (IHC-F). Additional reported applications (for the relevant formats) include: immunohistochemistry of acetone-fixed frozen sections and formalin-fixed paraffin-embedded sections^{6,7}, complement-mediated cytotoxicity¹, immunoprecipitation^{1,3}, and *in vivo* inhibition of DTH^{4,5}. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 103014). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 103046) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/µg).

**Application
References:**

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 3. Budd RC, et al. 1987. *J. Immunol.* 138:3120. (IP)
 4. Camp RL, et al. 1993. *J. Exp. Med.* 178:497. (Block)
 5. Weiss JM, et al. 1997. *J. Cell Biol.* 137:1137. (Block)
 6. Frank NY, et al. 2005. *Cancer Res.* 65:4320. (IHC) [PubMed](#)
 7. Cuff CA, et al. 2001. *J. Clin. Invest.* 108:1031. (IHC)
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 9. Zhang N, et al. 2005. *J. Immunol.* 174:6967. [PubMed](#)
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 11. Gui J, et al. 2007. *Int. Immunol.* 19:1201. [PubMed](#)
 12. Wang XY, et al. 2008. *Blood* 111:2436. [PubMed](#)
 13. Kenna TJ, et al. 2008. *Blood* 111:2091. [PubMed](#)
 14. Yamazaki J, et al. 2009. *Blood* [PubMed](#)
 15. Kmiecik M, et al. 2009. *J. Transl. Med.* 7:89. (FC) [PubMed](#)
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 17. Zheng Z, et al. 1995. *J. Cell. Biol.* 130:485.
 18. Wiranowska M, et al. 2010. *Int. J. Cancer* 127:532.
 19. Hirokawa Y, et al. 2014. *Am J Physiol Gastrointest Liver Physiol.* 306:547. [PubMed](#)
 20. Sandmaier BM, et al. 1998. *Blood* 91:3494.
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Description: CD44 is a 80-95 kD glycoprotein also known as Hermes, Pgp1, H-CAM, or HUTCH. It is expressed on all leukocytes, endothelial cells, hepatocytes, and mesenchymal cells. As B and T cells become activated or progress to the memory stage, CD44 expression increases from low or mid levels to high levels. Thus, CD44 has been reported to be a valuable marker for memory cell subsets. High CD44 expression on Treg cells has been associated with potent suppressive function via high production of IL-10. CD44 is an adhesion molecule involved in leukocyte attachment to and rolling on endothelial cells, homing to peripheral lymphoid organs and to the sites of inflammation, and leukocyte aggregation.

**Antigen
References:**

1. Barclay AN, et al. 1997. *The Leukocyte Antigen FactsBook* Academic Press.
2. Haynes BF, et al. 1991. *Cancer Cells* 3:347.
3. Goldstein LA, et al. 1989. *Cell* 56:1063.
4. Mikecz K, et al