

PE anti-mouse/human CD44

Catalog # / 1115115 / 25 tests
Size: 1115120 / 100 tests
 1115035 / 50 µg
 1115040 / 200 µg

Clone: IM7

Isotype: Rat IgG2b, κ

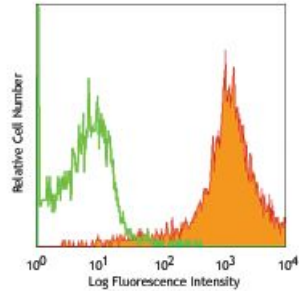
Immunogen: Dexamethasone-induced myeloid leukemia M1 cells

Reactivity: Human

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

Formulation: test sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
 microg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: microg sizes: 0.2 mg/ml
 test sizes: lot-specific

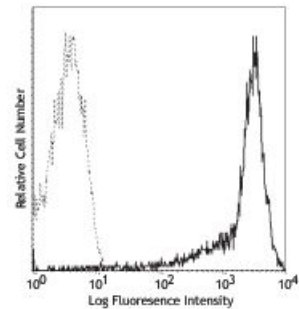


C57BL/6 mouse splenocytes stained with IM7 PE

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. For microg sizes, the suggested use of this reagent is ≤0.25 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.



Human peripheral blood lymphocytes stained with IM7 PE

**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:**

1. Trowbridge IS, *et al.* 1982. *Immunogenetics* 15:299. (ICFC, IP, CMCD)
2. Katoh S, *et al.* 1994. *J. Immunol.* 153:3440. (ELISA)
3. Budd RC, *et al.* 1987. *J. Immunol.* 138:3120. (IP)
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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)
8. Lee JW, *et al.* 2006. *Nature Immunol.* 8:181.
9. Zhang N, *et al.* 2005. *J. Immunol.* 174:6967. [PubMed](#)
10. Huabiao C, *et al.* 2005. *J. Immunol.* 175:591. [PubMed](#)
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](#)
16. Chen YW, *et al.* 2010. *Mol. Cancer Ther.* 9:2879. [PubMed](#)
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.
21. Charlton JJ, *et al.* 2015. *PLoS One.* 10:119200. [PubMed](#)

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.*

