Product Data Sheet

FITC anti-mouse/human CD44

Catalog # / Size: 1115025 / 50 μg

1115030 / 500 µg

1115105 / 25 tests

1115110 / 100 tests

Clone: IM7

Isotype: Rat IgG2b, κ

Immunogen: Dexamethasone-induced myeloid

leukemia M1 cells

Reactivity: Human

Preparation: The antibody was purified by affinity

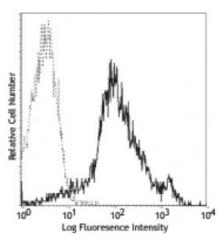
chromatography, and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.

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: test size: lot-specific; microg size: 0.5



C57BL/6 splenocytes stained with IM7 FITC

Applications:

Applications: Flow Cytometry

Recommended

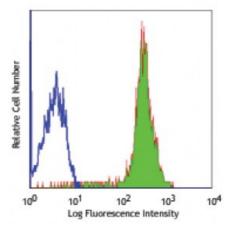
Usage:

Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining using the microg size, the suggested use of this reagent is ≤0.25 microg per million cells in 100 microL volume. **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. It is recommended that the

reagent be titrated for optimal performance for each application.

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. Additional reported applications (for the relevant formats) include: immunohistochemistry of acetone-fixed frozen sections and formalin-fixed paraffin-embedded



Human peripheral blood lymphocytes stained with IM7 FITC

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/microg).

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)
- 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)
- 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. Kmieciak 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 Gastrointerest Liver Physiol.* 306:547. PubMed
- 20. Sandmaier BM, et al. 1998. Blood 91:3494.
- 21. Lu X, et al. 2015. J Immunol. 194:2011. 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