SONY

Product Data Sheet

Alexa Fluor® 647 anti-mouse/human CD44

Catalog # / Size: 1115085 / 25 µg
1115090 / 100 µg

Clone: IM7

Isotype: Rat IgG2b, κ

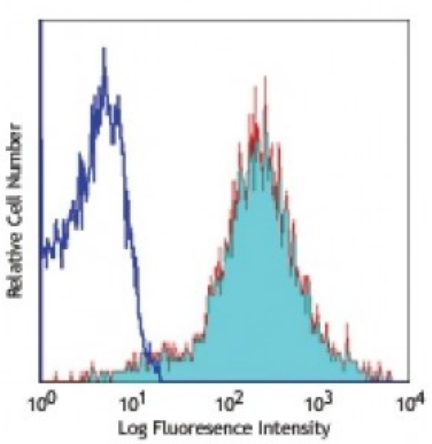
Immunogen: Dexamethasone-induced myeloid leukemia M1 cells

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions.

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

Concentration: 0.5



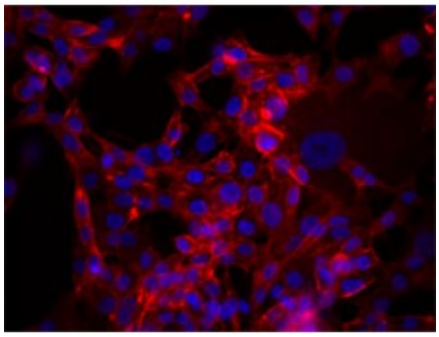
C57BL/6 mouse splenocytes stained with IM7 Alexa Fluor® 647

Applications:

Applications: Immunofluorescence

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 microg per 10^6 cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for other applications.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.



MDA-MB231 breast cancer cell line was stained with 5 microg/mL anti-human CD44 Alexa Fluor® 647 and nuclear counterstained with DAPI. Images were acquired with a TE300 fluorescence microscope with a 20x objective. Data provided by: Er Liu and John N

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 186[20]. 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/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.

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*