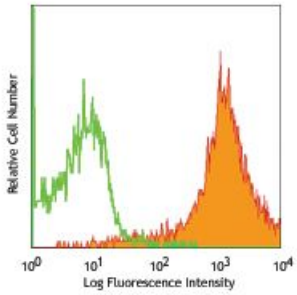
SONY

Product Data Sheet

PE anti-mouse/human CD44

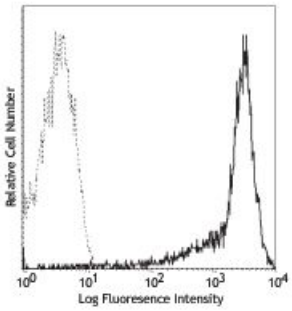
Catalog # / Size:	1115115 / 25 tests 1115120 / 100 tests 1115035 / 50 µg 1115040 / 200 µg
Clone:	IM7
Isotype:	Rat IgG2b, κ
Immunogen:	Dexamethasone-induced myeloid leukemia M1 cells
Reactivity:	Human, Mouse, Non-human primate, Other
Preparation:	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Formulation:	test sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA). µg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Workshop Number:	750 under optimal conditions.
Concentration:	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 µl to 5 µl per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 100 µl of whole blood. For µg sizes, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.



Human peripheral blood lymphocytes stained with IM7 PE

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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]. 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 cytotoxicity[1], 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)
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3. Budd RC, *et al.* 1987. *J. Immunol.* 138:3120. (IP)
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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
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14. Yamazaki J, *et al.* 2009. *Blood* PubMed
15. Kmieciak M, *et al.* 2009. *J. Transl. Med.* 7:89. (FC) PubMed
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21. Yang Y, *et al.* 2015. *Hypertension.* 65:1047. PubMed
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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.

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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.* 1995. *Nat. Med.* 1:558.
5. Hegde V, *et al.* 2008. *J. Leukocyte Biol.* 84:134.
6. Liu T, *et al.* 2009. *Biol. Direct* 4:40.

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