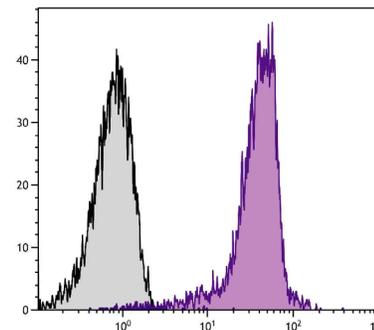




Rat Anti-Mouse CD44

Cat. No.	Format	Size
1500-01	Purified (UNLB)	0.5 mg
1500-02	Fluorescein (FITC)	0.5 mg
1500-08	Biotin (BIOT)	0.5 mg
1500-09	R-phycoerythrin (PE)	0.1 mg
1500-09L	R-phycoerythrin (PE)	0.2 mg
1500-11	Allophycocyanin (APC)	0.1 mg
1500-13	Spectral Red® (SPRD)	0.1 mg
1500-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg



C57BL/6 mouse bone marrow cells were stained with Rat Anti-Mouse CD44-APC (SB Cat. No. 1500-11).

Overview

Clone	KM201
Isotype	Rat (LOU/MN) IgG _{1κ}
Immunogen	(C57BL/6 x DBA/2)F ₁ mouse bone marrow-derived stromal clone BMS2
Specificity	Mouse CD44 (all isoforms); Mr 80-95 kDa
Alternate Name(s)	Pgp-1, H-CAM, HUTCH-1, ECMR-III

Description

CD44 represents a family of type I transmembrane glycoproteins expressed on many cell types such as B cells, monocytes, macrophages, and variable subsets of thymocytes and peripheral T cells. CD44 primarily functions as an adhesion molecule. It has been implicated in various processes, such as hematopoiesis, lymphocyte homing, leukocyte activation, tumor metastasis and development. The KM201 monoclonal antibody reacts with an epitope very close to the hyaluronate binding domain on the CD44 molecule. KM201 can inhibit hyaluronate-dependent cell aggregation, prevent lympho-hemopoiesis in both Dexter and Whitlock-Witte cultures, prevent the earliest intrathymic precursors from homing to the thymus, and costimulate the activation of freshly purified splenic CD4⁺ T cells.

Applications

FC – Quality tested ^{1,3,4,8-12}
 IHC-FS – Reported in literature ²
 IHC-PS – Reported in literature ⁴
 ICC – Reported in literature ⁵
 IP – Reported in literature ^{1,5,7}
 WB – Reported in literature ^{3-5,7}
 Block – Reported in literature ^{5,6}
 Adhesion – Reported in literature ^{4,7}

Working Dilutions

Flow Cytometry	FITC and BIOT conjugates	≤ 2 μg/10 ⁶ cells
	PE, APC, and SPRD conjugates	≤ 0.2 μg/10 ⁶ cells
For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL		

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

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Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The Spectral Red® (SPRD) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Miyake K, Medina KL, Hayashi S, Ono S, Hamaoka T, Kincade PW. Monoclonal antibodies to Pgp-1-CD44 block lympho-hemopoiesis in long-term bone marrow cultures. *J Exp Med.* 1990;171:477-88. (Immunogen, FC, IP, Adhesion)
2. Cheng G, Swaidani S, Sharma M, Lauer ME, Hascall VC, Aronica MA. Correlation of hyaluronan deposition with infiltration of eosinophils and lymphocytes in a cockroach-induced murine model of asthma. *Glycobiology.* 2013;23:43-58. (IHC-FS)
3. Takano H, Nakazawa S, Shirata N, Tamba S, Furuta K, Tsuchiya S, et al. Involvement of CD44 in mast cell proliferation during terminal differentiation. *Lab Invest.* 2009;89:446-55. (WB, FC)
4. Schmits R, Filmus J, Gerwin N, Senaldi G, Kiefer F, Kundig T, et al. CD44 regulates hematopoietic progenitor distribution, granuloma formation, and tumorigenicity. *Blood.* 1997;90:2217-33. (WB, IHC-PS, FC, Adhesion)
5. Craig EA, Parker P, Austin AF, Barnett JV, Camenisch TD. Involvement of the MEKK1 signaling pathway in the regulation of epicardial cell behavior by hyaluronan. *Cell Signal.* 2010;22:968-76. (WB, IP, ICC, Block)
6. Craig EA, Parker P, Camenisch TD. Size-dependent regulation of Snail2 by hyaluronan: Its role in cellular invasion. *Glycobiology.* 2009;19:890-8. (Block)
7. He Q, Lesley J, Hyman R, Ishihara K, Kincade PW. Molecular isoforms of murine CD44 and evidence that the membrane proximal domain is not critical for hyaluronate recognition. *J Cell Biol.* 1992;119:1711-9. (WB, IP, Adhesion)
8. Wright MH, Calcagno AM, Salcido CD, Carlson MD, Ambudkar SV, Varticovski L. Brca1 breast tumors contain distinct CD44⁺/CD24⁻ and CD133⁺ cells with cancer stem cell characteristics. *Breast Cancer Res.* 2008;10(1):R10. (FC)
9. Motohashi N, Uezumi A, Yada E, Fukada S, Fukushima K, Imaizumi K, et al. Muscle CD31(-) CD45(-) side population cells promote muscle regeneration by stimulating proliferation and migration of myoblasts. *Am J Pathol.* 2008;173:781-91. (FC)
10. Wiranowska M, Ladd S, Moscinski LC, Hill B, Haller E, Mikecz K, et al. Modulation of hyaluronan production by CD44 positive glioma cells. *Int J Cancer.* 2010;127:532-42. (FC)
11. Baird JR, Fox BA, Sanders KL, Lizotte PH, Cubillos-Ruiz JR, Scarlett UK, et al. Avirulent *Toxoplasma gondii* generates therapeutic antitumor immunity by reversing immunosuppression in the ovarian cancer microenvironment. *Cancer Res.* 2013;73:3842-51. (FC)
12. Jacobsen J, Haabeth OW, Tveita AA, Schjetne KW, Munthe LA, Bogen B. Naive idiotope-specific B and T cells collaborate efficiently in the absence of dendritic cells. *J Immunol.* 2014;192:4174-83. (FC)

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