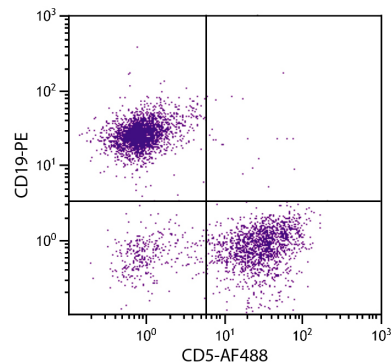




Rat Anti-Mouse CD5

Cat. No.	Format	Size
1547-01	Purified (UNLB)	0.5 mg
1547-02	Fluorescein (FITC)	0.5 mg
1547-08	Biotin (BIOT)	0.5 mg
1547-09	R-phycoerythrin (PE)	0.1 mg
1547-11	Allophycocyanin (APC)	0.1 mg
1547-30	Alexa Fluor [®] 488 (AF488)	0.1 mg
1547-31	Alexa Fluor [®] 647 (AF647)	0.1 mg



BALB/c mouse splenocytes were stained with Rat Anti-Mouse CD5-AF488 (SB Cat. No. 1547-30) and Rat Anti-Mouse CD19-PE (SB Cat. No. 1575-09).

Overview

Clone	53-7.3
Isotype	Rat (LOU/Ws1/M) IgG _{2a} K
Immunogen	Spleen cells or thymocyte membranes
Specificity	Mouse CD5; Mr 67 kDa
Alternate Name(s)	Lyt-1, Ly-1, Lymphocyte antigen 1, Ly-12, Ly-A, T1, Tp67

Description

CD5, also known as Lyt-1, is a monomeric type I transmembrane glycoprotein expressed on thymocytes, T lymphocytes, and a subset of B lymphocytes, but not on natural killer (NK) cells. It has been identified as the major ligand of the B-cell antigen CD72. The frequency of CD5⁺ B cells exhibits strain-dependent variation, and the phenotypic, anatomical, functional, developmental, and pathological characteristics of the CD5⁺ B cells suggest that they may represent a distinct lineage, known as B-1 cells. Binding of CD5 on the T cell surface can augment alloantigen- or mitogen-induced lymphocyte proliferation and induces increased cytosolic free calcium, IL-2 secretion, and IL-2R expression. It has been proposed that CD5 negatively regulates signal transduction mediated by the T-cell and B-cell receptors.

Applications

FC – Quality tested ^{1,2}
 IHC-FS – Reported in literature ²
 IP – Reported in literature ¹
 ELISA – Reported in literature ³
 Cyto – Reported in literature ²
 Block – Reported in literature ⁴

Working Dilutions

Flow Cytometry	Purified (UNLB) antibody	≤ 1 μg/10 ⁶ cells
	FITC, BIOT, and AF488 conjugates	≤ 1 μg/10 ⁶ cells
	PE, APC, and AF647 conjugates	≤ 0.1 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.

For Research Use Only. Not for Diagnostic or Therapeutic Use.

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 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 Alexa Fluor[®] 488 (AF488) and Alexa Fluor[®] 647 (AF647) conjugates are supplied as 0.1 mg in 0.2 mL of PBS/NaN₃. Store at 2-8°C.
- 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 (M)SDS.

References

1. Ledbetter JA, Herzenberg LA. Xenogeneic monoclonal antibodies to mouse lymphoid differentiation antigens. *Immunol Rev.* 1979;47:63-90. (Immunogen, IP, FC)
2. Ledbetter JA, Rouse RV, Micklem HS, Herzenberg LA. T cell subsets defined by expression of Lyt-1,2,3 and Thy-1 antigens. Two-parameter immunofluorescence and cytotoxicity analysis with monoclonal antibodies modifies current views. *J Exp Med.* 1980;152:280-95. (FC, IHC-FS)
3. Luo W, van de Velde H, von Hoegen I, Parnes JR, Thielemans K. Ly-1 (CD5), a membrane glycoprotein of mouse T lymphocytes and a subset of B cells, is a natural ligand of the B cell surface protein Lyb-2 (CD72). *J Immunol.* 1992;148:1630-4. (ELISA)
4. Bikah G, Lynd FM, Aruffo AA, Ledbetter JA, Bondada S. A role for CD5 in cognate interactions between T cells and B cells, and identification of a novel ligand for CD5. *Int Immunol.* 1998;10:1185-96. (Block)

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