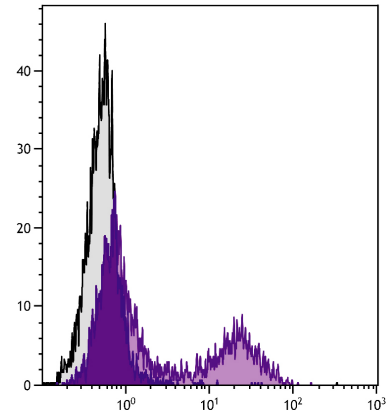




## Rat Anti-Mouse CD5

Cat. No.	Format	Size
1545-01	Purified (UNLB)	0.5 mg
1545-02	Fluorescein (FITC)	0.5 mg
1545-02S	Fluorescein (FITC)	0.1 mg
1545-08	Biotin (BIOT)	0.5 mg
1545-09	R-phycoerythrin (PE)	0.1 mg
1545-09L	R-phycoerythrin (PE)	0.2 mg
1545-11	Allophycocyanin (APC)	0.1 mg
1545-13	Spectral Red® (SPRD)	0.1 mg



C57BL/6 mouse splenocytes were stained with Rat Anti-Mouse CD5-UNLB (SB Cat. No. 1545-01) followed by Mouse Anti-Rat IgG2a-FITC (SB Cat. No. 3065-02).

### Overview

<b>Clone</b>	B19.1
<b>Isotype</b>	Rat IgG <sub>2a</sub> K
<b>Immunogen</b>	Unknown
<b>Specificity</b>	Mouse CD5; Mr 67 kDa
<b>Alternate Name(s)</b>	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<sup>+</sup> B cells exhibits strain-dependent variation, and the phenotypic, anatomical, functional, developmental, and pathological characteristics of the CD5<sup>+</sup> 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 <sup>1-4</sup>  
 IP – Reported in literature <sup>5</sup>  
 WB – Reported in literature <sup>5</sup>

### Working Dilutions

<b>Flow Cytometry</b>	FITC and BIOT conjugates	≤ 1 µg/10 <sup>6</sup> cells
	PE, APC, and SPRD conjugates	≤ 0.2 µg/10 <sup>6</sup> cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 µL	
<b>Other Applications</b>	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

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- 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 or 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. 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/NaN<sub>3</sub> 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/NaN<sub>3</sub> 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/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

## Warning

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

## References

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1. Seagal J, Edry E, Keren Z, Leider N, Benny O, Machluf M, et al. A fail-safe mechanism for negative selection of isotype-switched B cell precursors is regulated by the Fas/FasL pathway. *J Exp Med.* 2003;198:1609-19. (FC)
2. Berge T, Grønningsæter IH, Lørvik KB, Abrahamsen G, Granum S, Sundvold-Gjerstad V, et al. SH2D2A modulates T cell mediated protection to a B cell derived tumor in transgenic mice. *PLoS One.* 2012;7(10):e48239. (FC)
3. Zhu Z, Li R, Li H, Zhou T, Davis RS. FCRL5 exerts binary and compartment-specific influence on innate-like B-cell receptor signaling. *Proc Natl Acad Sci USA.* 2013;110:E1282-90. (FC)
4. Almena M, Andrada E, Liebana R, Merida I. Diacylglycerol metabolism attenuates T-cell receptor signaling and alters thymocyte differentiation. *Cell Death Dis.* 2013;4:e912. (FC)
5. Personal communication (IP, WB)

Spectral Red® is a registered trademark of Southern Biotechnology Associates, Inc.

Spectral Red® is a PE/CY5 tandem conjugate.

Cy® is a registered trademark of GE Healthcare.