



## CELL LAB Rat Anti-Mouse CD5/Lyt-1

<u>Cat. No.</u>	<u>Form</u>	<u>Quantity</u>
732014	Purified (UNLB) Antibody	0.5 mg
732015	Fluorescein (FITC) Conjugate	0.5 mg
732016	Fluorescein (FITC) Conjugate	0.1 mg
732017	Biotin (BIOT) Conjugate	0.5 mg
732018	Phycoerythrin (PE) Conjugate	0.1 mg
733263	Phycoerythrin (PE) Conjugate	0.2 mg
732019	Allophycocyanin (APC) Conjugate	0.1 mg
732020	Spectral Red™ (SPRD) Conjugate	0.1 mg

### For Laboratory Use Only

#### DESCRIPTION

**Clone:** 4H8E6  
**Isotype:** Rat IgG2a $\kappa$   
**Specificity:** CD5/Lyt-1, Mr 67 kDa

CD5/Lyt-1 antigen 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.<sup>1-3</sup> It has been identified as the major ligand of the B-cell antigen CD72.<sup>4,5</sup> 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.<sup>6</sup> 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.<sup>7-12</sup> It has been proposed that CD5 negatively regulates signal transduction mediated by the T-cell and B-cell receptors.<sup>13,14</sup>

#### APPLICATIONS

- Identification and enumeration of CD5<sup>+</sup> cells by flow cytometry
- Immunoprecipitation
- Immunohistochemistry (frozen sections)
- T cell activation
- Western blotting

#### CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using immunofluorescence staining and flow cytometry.

#### WORKING DILUTIONS

**Flow Cytometry:**

FITC conjugate	≤1 μg/10 <sup>6</sup> cells
BIOT conjugate	≤1 μg/10 <sup>6</sup> cells
PE conjugate	≤0.2 μg/10 <sup>6</sup> cells
APC conjugate	≤0.2 μg/10 <sup>6</sup> cells
SPRD conjugate	≤0.2 μg/10 <sup>6</sup> cells

**Other Applications:** Since applications vary, determine the optimum working dilution of the product that is appropriate for your specific needs.

### **HANDLING AND STORAGE**

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. No preservatives or amine-containing buffer salts added.
- The fluorescein (FITC) conjugates are supplied as 0.5 mg or 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub>.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>.
- The phycoerythrin (PE) conjugates are 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.
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent.
- 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.
- Protect fluorochrome-conjugated forms from light. Do not freeze.
- Reagent is stable until the expiration date on the vial when stored at 2-8°C.

### **STATEMENT OF WARNINGS**

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Minimize exposure of reagent to light during storage or incubation.
5. Avoid microbial contamination of reagent or erroneous results may occur.
6. Use Good Laboratory Practice (GLP) when handling this reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.
9. Contains sodium azide. Sodium azide under acidic conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, immediately wash excessively with water.

### **TRADEMARKS**

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