



1P-748-C025

Monoclonal Antibody to CD5 (mouse) Phycoerythrin (PE) conjugated (0.025 mg)

Clone:	53-7.3
Isotype:	Rat IgG2a
Specificity:	The rat monoclonal antibody 53-7.3 recognizes CD5, a 67kDa single-chain transmembrane glycoprotein expressed on mature T lymphocytes, most of thymocytes and B-1 lymphocytes.
Regulatory Status:	RUO
Immunogen:	mouse thymus or spleen cells
Species Reactivity:	Mouse
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Concentration:	0.5 mg/ml
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD5 (T1) is a single-chain transmembrane glycoprotein expressed on all mature T-lymphocytes, most of thymocytes, subset of B-lymphocytes and on many T-cell leukemias and lymphomas. It is a type I membrane glycoprotein whose extracellular region contains three scavenger receptor cysteine-rich (SRCR) domains. CD5 modulates signaling through the antigen-specific receptor complex (TCR and BCR). CD5 crosslinking induces extracellular Ca ⁺⁺ mobilization, tyrosine phosphorylation of intracellular proteins and DAG production. CD5 may serve as a dual receptor, giving either stimulatory or inhibitory signals depending both on the cell type and development stage. In thymocytes and B1a cells seems to provide inhibitory signals, in peripheral mature T lymphocytes it acts as a costimulatory signal receptor. CD5 is the phenotypic marker of a B cell subpopulation involved in the production of autoreactive antibodies.
References:	*Wang JY, Lee J, Yan M, Rho JH, Roehrl MH: Dermatan sulfate interacts with dead cells and regulates CD5(+) B-cell fate: implications for a key role in autoimmunity. <i>Am J Pathol.</i> 2011 May;178(5):2168-76. *Jeong YI, Hong SH, Cho SH, Lee WJ, Lee SE: Induction of IL-10-producing CD1dhighCD5+ regulatory B cells following Babesia microti-infection. <i>PLoS One.</i> 2012;7(10):e46553. doi: 10.1371/journal.pone.0046553. *Sestero CM, McGuire DJ, De Sarno P, Brantley EC, Soldevila G, Axtell RC, Raman C: CD5-dependent CK2 activation pathway regulates threshold for T cell anergy. <i>J Immunol.</i> 2012 Sep 15;189(6):2918-30

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Antibodies

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