



## CD4 Antibody [RM4-5] (Violet-450)

CATALOG NUMBER: 76-371

### Specifications

<b>SPECIES REACTIVITY:</b>	Mouse
<b>TESTED APPLICATIONS:</b>	FACS
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.
<b>SPECIFICITY:</b>	The RM4-5 monoclonal antibody specifically reacts with mouse CD4, also known as L3T4, a 55 kDa differentiation antigen expressed by the majority of thymocytes, subpopulations of mature T cells (like major histocompatibility complex class II-restricted T lymphocytes), a subset of natural killer T cells, and on pluripotent hematopoietic stem cells.
<b>HOST SPECIES:</b>	Rat

### Properties

<b>PURIFICATION:</b>	The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.
<b>PHYSICAL STATE:</b>	liquid
<b>BUFFER:</b>	Phosphate-buffered aqueous solution, ≤0.09% Sodium azide, may contain carrier protein/stabilizer, pH7.2.
<b>CONCENTRATION:</b>	0.2 mg/mL
<b>STORAGE CONDITIONS:</b>	The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze.
<b>CLONALITY:</b>	Monoclonal
<b>ISOTYPE:</b>	Rat IgG2a, kappa
<b>CONJUGATE:</b>	Violet-450

### Additional Info

<b>ALTERNATE NAMES:</b>	L3T4, Ly-4, Cd4
<b>OFFICIAL SYMBOL:</b>	Cd4
<b>GENE ID:</b>	12504

### Background

<b>BACKGROUND:</b>	The RM4-5 monoclonal antibody specifically reacts with mouse CD4, also known as L3T4, a 55 kDa differentiation antigen expressed by the majority of thymocytes, subpopulations of mature T cells (like major histocompatibility complex class II-restricted T lymphocytes), a subset of natural killer T cells, and on pluripotent hematopoietic stem cells. CD4 binds to the major histocompatibility complex class II (MHC class II) and enhances T lymphocyte development and mature T cells functions. In T lymphocytes, CD4 binds to the cytoplasmic tail of enzyme tyrosine kinase (p56lck). Binding of RM4-5 is blocked by the anti-mouse CD4 clone GK1.5. BG Violet 450 conjugate is an alternative to the Pacific Blue, eFluor 450, or BD Horizon V450 dyes. It is excited by the violet (405 nm) laser, with a peak emission of 450nm.
<b>REFERENCES:</b>	1) Shevach, E. M. (2000). Regulatory T cells in autoimmunity*. Annual review of immunology, 18(1), 423-449. 2) Wu, L., Scollay, R., Egerton, M., Pearse, M., Spangrude, G. J., Shortman, K. (1991). CD4 expressed on earliest T-lineage precursor cells in the adult murine thymus.

3) Bliss, S. K., Bliss, S. P., Beiting, D. P., Alcaraz, A., Appleton, J. A. (2007). IL-10 regulates movement of intestinally derived CD4+ T cells to the liver. *The Journal of Immunology*, 178(12), 7974-7983.

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**FOR RESEARCH USE ONLY**

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