

**Anti-Mouse CD4 Antibody,  
Clone RM4-5, PE**

## Antibodies

Rat monoclonal IgG2a antibody  
against mouse CD4, PE-conjugated

Catalog #60017PE      200 µg      0.2 mg/mL  
#60017PE.1      50 µg      0.2 mg/mL



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## Product Description

The RM4-5 antibody reacts with mouse CD4, an ~55 kDa single-chain type 1 transmembrane glycoprotein and member of the immunoglobulin (Ig) superfamily; CD4 contains four extracellular Ig-like domains. CD4 is expressed at relatively high levels by most thymocytes and a subpopulation of T cells (T-helper/inducer cells), and at lower levels on dendritic cells. In the mouse, CD4 is not expressed by monocytes/macrophages. CD4 binds to a non-polymorphic region of MHC II and acts as a co-receptor to the T cell receptor (TCR) in MHC II-restricted antigen recognition by enhancing the avidity of the association between the TCR and MHC II-antigen complex. CD4 also functions to amplify signals from the TCR to the cytoplasm through the interaction of its intracellular domain with cytoplasmic tyrosine kinases such as Lck. Binding of the RM4-5 antibody to CD4 inhibits ligand binding in vitro. Moreover, binding of the RM4-5 antibody can be blocked by the clone GK1.5 antibody.

**Target Antigen Name:** CD4

**Alternative Names:** L3T4, T4

**Gene ID:** 12504

**Species Reactivity:** Mouse

**Host Species:** Rat (DA)

**Clonality:** Monoclonal

**Clone:** RM4-5

**Isotype:** IgG2a, kappa

**Immunogen:** BALB/c mouse thymocytes

**Conjugate:** PE

## Applications

**Verified:** FC

**Reported:** FC

**Special Applications:** This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse CD4+ T Cell Enrichment Kit (Catalog #19752) and EasySep™ Mouse CD4+ T Cell Isolation Kit (Catalog #19852).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

## Properties

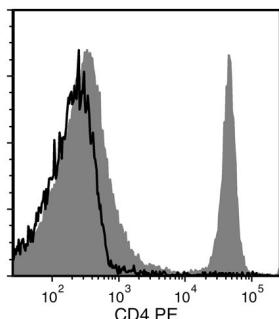
**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide

**Purification:** The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

**Stability and Storage:** Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please request a lot-specific Certificate of Analysis from [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

**Directions for Use:** For flow cytometry the suggested use of this antibody is ≤ 0.25 µg per 1 x 10<sup>6</sup> cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD4 Antibody, Clone RM4-5, PE (filled histogram) or a rat IgG2a, kappa PE isotype control antibody (solid line histogram).

## Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Mouse CD4 Antibody, Clone RM4-5	60017	500 µg
Anti-Mouse CD4 Antibody, Clone RM4-5, PE	60017PE	200 µg
Anti-Mouse CD4 Antibody, Clone RM4-5, PE	60017PE.1	50 µg
Anti-Mouse CD4 Antibody, Clone RM4-5, Alexa Fluor® 488	60017AD	100 µg
Anti-Mouse CD4 Antibody, Clone RM4-5, Alexa Fluor® 488	60017AD.1	25 µg

## References

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3. Bosselut R, et al. Association of the adaptor molecule LAT with CD4 and CD8 coreceptors identifies a new coreceptor function in T cell receptor signal transduction. J Exp Med 190(10): 1517-26, 1999 (IP)
4. Muraille E, et al. Amastigote load and cell surface phenotype of infected cells from lesions and lymph nodes of susceptible and resistant mice infected with *Leishmania major*. Infect Immun 71(5): 2704-15, 2003 (IHC)
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6. Leon-Ponte M, et al. Serotonin provides an accessory signal to enhance T-cell activation by signaling through the 5-HT7 receptor. Blood 109(8): 3139-46, 2007 (FC)
7. Bourdeau A, et al. TC-PTP-deficient bone marrow stromal cells fail to support normal B lymphopoiesis due to abnormal secretion of interferon- $\gamma$ . Blood 109(10): 4220-28, 2007 (FC)
8. Matsumoto M, et al. CD43 collaborates with P-selectin glycoprotein ligand-1 to mediate E-selectin-dependent T cell migration into inflamed skin. J Immunol 178(4): 2499-506, 2007
9. Shigeta A, et al. An L-selectin ligand distinct from P-selectin glycoprotein ligand-1 is expressed on endothelial cells and promotes neutrophil rolling in inflammation. Blood 112(13): 4915-23, 2008
10. Rodrigues-Manzanet R, et al. T and B cell hyperactivity and autoimmunity associated with niche-specific defects in apoptotic body clearance in TIM-4-deficient mice. Proc Natl Acad Sci USA 107(19): 8706-11, 2010

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