# Antibodies

**Anti-Mouse CD4 Antibody, Clone RM4-4, FITC**

Rat monoclonal IgG2b antibody against mouse CD4, FITC-conjugated

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|---|---|---|
| Catalog #60029FI | 500 µg | 0.5 mg/mL |
| #60029FI.1 | 50 µg | 0.5 mg/mL |

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## Product Description

The RM4-4 antibody reacts with mouse CD4, an ~55 kDa single-chain type 1 transmembrane glycoprotein and member of the immunoglobin (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 RM4-4 antibody does not block binding of antibody clones RM4-5 or GK1.5.

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| Target Antigen Name: | CD4 |
| Alternative Names: | L3T4, T4 |
| Gene ID: | 12504 |
| Species Reactivity: | Mouse |
| Host Species: | Rat (SD) |
| Clonality: | Monoclonal |
| Clone: | RM4-4 |
| Isotype: | IgG2b, kappa |
| Immunogen: | BALB/c mouse thymocytes |
| Conjugate: | FITC |

## Applications

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| 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 Isolation Kit (Catalog #19852) and EasySep™ Mouse CD4 Positive Selection Kit II (Catalog #18952). |

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

## Properties

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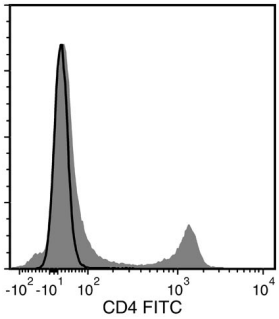
| Formulation: | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide |
| Purification: | The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC. |
| Stability and Storage: | Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com. |
| Directions for Use: | For flow cytometry the suggested use of this antibody is ≤ 0.25 µg per 1 x 10^6 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 RM4-4, FITC (filled histogram) or Rat IgG2b, kappa Isotype Control Antibody, Clone RTK4530, FITC (Catalog #60077FI) (solid line histogram).

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

## References

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4. Kruisbeek AM. (2001) In vivo depletion of CD4- and CD8-specific T cells. Curr Protoc Immunol Chapter 4: Unit 4.1. (Depletion, FA)
5. Zheng M et al. (2001) CD4+ T cell-independent vaccination against Pneumocystis carinii in mice. J Clin Invest 108(10): 1469–74. (FC)
6. Epstein SL et al. (2000) Vaccination with DNA encoding internal proteins of influenza virus does not require CD8(+) cytotoxic T lymphocytes: either CD4(+) or CD8(+) T cells can promote survival and recovery after challenge. Int Immunol 12(1): 91–101. (FC)
7. Godfrey DI et al. (1994) Onset of TCR-beta gene rearrangement and role of TCR-beta expression during CD3-CD4-CD8- thymocyte differentiation. J Immunol 152(10): 4783–92. (FC)
8. Wineman JP et al. (1992) CD4 is expressed on murine pluripotent hematopoietic stem cells. Blood 80(7): 1717–24. (FACS, FC)