# Antibodies

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

Rat monoclonal IgG2a antibody against mouse CD4, PE-conjugated

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| 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 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 RM4-5 antibody to CD4 inhibits ligand binding in vitro. Moreover, binding of the RM4-5 antibody can be blocked by the clone GK1.5 antibody.

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| 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

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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 CD25 Regulatory T Cell Positive Selection Kit (Catalog #18782). |

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

## Properties

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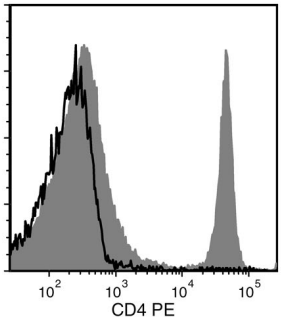
| Formulation: | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide |
| Purification: | The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody. |
| Stability and Storage: | Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please 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 RM4-5, PE (filled histogram) or Rat IgG2a, kappa Isotype Control Antibody, Clone RTK2758, PE (Catalog #60076PE; 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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3. Shigeta A et al. (2008) 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. (FC)
4. Bourdeau A et al. (2007) TC-PTP-deficient bone marrow stromal cells fail to support normal B lymphopoiesis due to abnormal secretion of interferon-gamma. Blood 109(10): 4220–8. (CellSep)
5. León-Ponte M et al. (2007) Serotonin provides an accessory signal to enhance T-cell activation by signaling through the 5-HT7 receptor. Blood 109(8): 3139–46. (FC)
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7. Irie J et al. (2006) NOD.c3c4 congenic mice develop autoimmune biliary disease that serologically and pathogenetically models human primary biliary cirrhosis. J Exp Med 203(5): 1209–19. (FC, IHC)
8. Muraille E et al. (2003) 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. (IHC)
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11. Nitta H. (1997) Improved in situ immunodetection of leukocytes on paraffin embedded mouse spleen. Cell Vis 4(1): 73–80. (IHC)