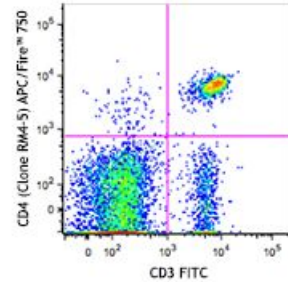


**APC/Fire™ 750 anti-mouse CD4**

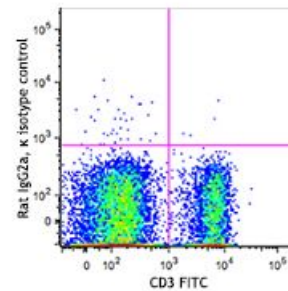
**Catalog # /** 1102835 / 25 µg  
**Size:** 1102840 / 100 µg  
**Clone:** RM4-5  
**Isotype:** Rat IgG2a, κ  
**Immunogen:** BALB/c mouse thymocytes  
**Reactivity:** Mouse  
**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC/Fire™  
**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.  
**Workshop Number:** 750 under optimal conditions.  
**Concentration:** 0.2 mg/ml



C57BL/6 splenocytes were stained with CD3 FITC and CD4 (clone RM4-5) APC/Fire™ 750 (top), or rat IgG2a, κ APC/Fire™ 750 isotype control (bottom).

**Applications:**

**Applications:** Flow Cytometry  
**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.



\* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.

**Application Notes:** The RM4-5 antibody blocks the binding of GK1.5 antibody and H129.19 antibody to CD4<sup>+</sup> T cells, but not RM4-4 antibody. Additional reported applications (for the relevant formats) include: blocking of ligand binding, *in vivo* depletion of CD4<sup>+</sup> cells<sup>1</sup>, and immunohistochemistry of acetone-fixed frozen tissue sections<sup>2,3,11</sup> and paraffin-embedded sections<sup>11</sup>. Clone RM4-5 is not recommended for immunohistochemistry of formalin-fixed paraffin sections. Instead, acetone frozen or zinc-fixed paraffin sections are recommended. The Ultra-LEAF™ Purified antibody (Endotoxin < 0.01 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 100575 and 100576).

**Application References:**

1. Kruisbeek AM. 1991. *In Curr. Protocols Immunol.* pp. 4.1.1-4.1.5. (Block, Deplete)
2. Nitta H, *et al.* 1997. *Cell Vision* 4:73. (IHC)
3. Fan WY, *et al.* 2001. *Exp. Biol. Med.* 226:1045.
4. Muraille E, *et al.* 2003. *Infect. Immun.* 71:2704. (IHC)
5. Leon-Ponte M, *et al.* 2007. *Blood* 109:3139. (FC)
6. Bourdeau A, *et al.* 2007. *Blood* doi:10.1182/blood-2006-08-044370. (FC)
7. Matsumoto M, *et al.* 2007. *J. Immunol.* 178:2499. [PubMed](#)
8. Shigeta A, *et al.* 2008. *Blood* 112:4915. [PubMed](#)
9. Zaborsky N, *et al.* 2010. *J. Immunol.* 184:725. [PubMed](#)
10. Rodrigues-Manzanet R, *et al.* 2010. *P. Natl Acad Sci USA* 107:8706. [PubMed](#)
11. Whiteland JL, *et al.* 1995. *J. Histochem. Cytochem.* 43:313. (IHC)

---

**Description:**

CD4 is a 55 kD protein also known as L3T4 or T4. It is a member of the Ig superfamily, primarily expressed on most thymocytes and a subset of T cells, and weakly on macrophages and dendritic cells. It acts as a co-receptor with the TCR during T cell activation and thymic differentiation by binding MHC class II and associating with the protein tyrosine kinase Lck.

**Antigen References:**

1. Barclay A, *et al.* 1997. *The Leukocyte Antigen FactsBook* Academic Press.
2. Bierer BE, *et al.* 1989. *Annu. Rev. Immunol.* 7:579.
3. Janeway CA. 1992. *Annu. Rev. Immunol.* 10:645.