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Product Data Sheet

FITC anti-mouse CD4

Catalog # / Size: 1102545 / 50 µg
1102550 / 500 µg

Clone: RM4-5

Isotype: Rat IgG2a, κ

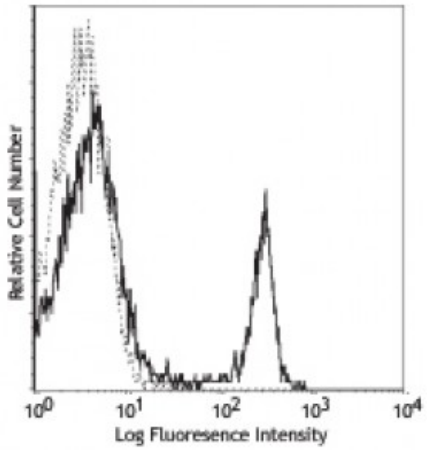
Immunogen: BALB/c mouse thymocytes

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.

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

Concentration: 0.5



C57BL/6 mouse splenocytes stained with CD4 (clone RM4-5) FITC (solid line) or rat IgG2a, κ FITC isotype control (dotted line).

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 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: The RM4-5 antibody blocks the binding of GK1.5 antibody and H129.19 antibody to $CD4^+$ T cells, but not RM4-4 antibody. Additional reported applications (for the relevant formats) include: blocking of ligand binding, *in vivo* depletion of $CD4^+$ cells1, and immunohistochemistry of acetone-fixed frozen tissue sections[2,3,11] and paraffin-embedded sections[11]. Clone RM4-5 is not recommended for immunohistochemistry of formalin-fixed paraffin sections. Instead, acetone frozen or zinc-fixed paraffin sections are recommended. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 100520).

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. León-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)
12. Sundberg TB, *et al.* 2014. *PNAS.* 111:12468. PubMed
13. Wiesner DL, *et al.* 2015. *PLoS Pathog.* 11:1004701. PubMed

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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.

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