SONY

Product Data Sheet

APC/Cyanine7 anti-mouse CD4

Catalog # / Size: 1102625 / 25 µg
1102630 / 100 µg

Clone: RM4-5

Isotype: Rat IgG2a, κ

Immunogen: BALB/c mouse thymocytes

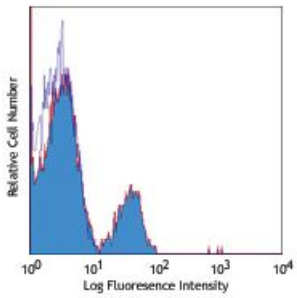
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with APC/Cy7 under optimal conditions.

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

Workshop Number: HCDM listed

Concentration: 0.2



C57BL/6 mouse splenocytes stained with CD4 (clone RM4-5) APC/Cy7 (filled histogram) or rat IgG2a, κAPC/Cy7 isotype control (open histogram).

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 ≤1.0 µg per million cells in 100 µl 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)

For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.

Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com

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.

For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.