

Brilliant Violet 570™ anti-mouse CD4

Catalog # / Size: 1102705 / 125 µl
1102710 / 50 µg

Clone: RM4-5

Isotype: Rat IgG2a, κ

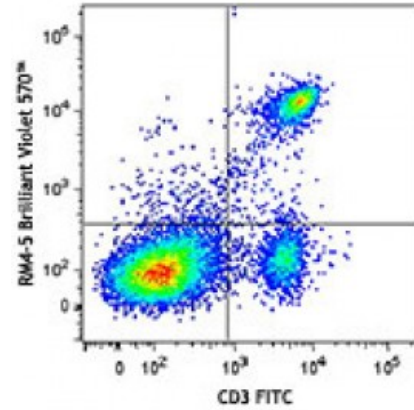
Immunogen: BALB/c mouse thymocytes

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 570™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 570™ and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Concentration: microg sizes: 0.2 mg/ml
microL sizes: lot-specific

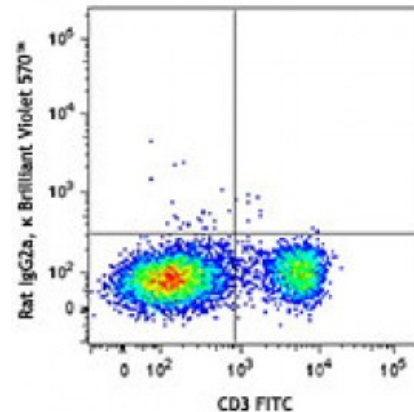


C57BL/6 mouse splenocytes were stained with CD3 FITC and CD4 (clone RM4-5) Brilliant Violet 570™ (top), or rat IgG2a, κ Brilliant Violet 570™ isotype control (bottom).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining using the microg size, the suggested use of this reagent is ≤0.5 microg per million cells in 100 microL volume. For immunofluorescent staining using the microL size, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.



Brilliant Violet 570™ excites at 405 nm and emits at 570 nm. The bandpass filter 585/42 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 570™ is a trademark of Sirigen Group Ltd.

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purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.

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 sections¹¹. 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)

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.