

Pacific Blue™ anti-mouse CD3

Catalog # / Size: 1101065 / 25 µg
1101070 / 100 µg

Clone: 17A2

Isotype: Rat IgG2b, κ

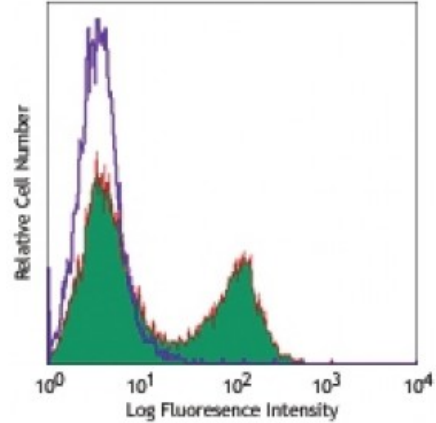
Immunogen: γδTCR-positive T-T hybridoma D1

Reactivity: Mouse

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

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

Concentration: 0.5



C57BL/6 mouse splenocytes stained with Pacific Blue™ 17A2

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 microg per 10⁶ cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

Application Notes: The 17A2 antibody recognizes ε/γ (but not ε/δ) of the CD3 complex. The 17A2 antibody can induce T cell activation and has been reported to deplete CD3⁺ cells *in vivo*. Additional reported applications (for the relevant formats) include: immunoprecipitation¹, complement-mediated cytotoxicity^{1,3}, immunohistochemical staining of acetone-fixed frozen sections^{1,4}, *in vitro* stimulation of T cells¹ and depletion of CD3⁺ cells *in vivo*². The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 100208). For *in vivo* studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 100238) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

- Application References:**
1. Miescher GC, *et al.* 1989. *Immunol. Lett.* 23:113. (IP, IHC, Activ, CMCD)
 2. Mysliwicz J, *et al.* 1992. *Blood* 80:2661. (Deplete)
 3. Wu L, *et al.* 1991. *J. Exp. Med.* 174:1617. (CMCD)
 4. Zhang Y, *et al.* 2002. *J. Immunol.* 168:3088. (IHC)
 5. Zan H, *et al.* 2005. *EMBO J.* 24:3757.
 6. Morgado P, *et al.* 2011. *Infect Immun.* 79:4401. [PubMed](#)
 7. Xiao J, *et al.* 2012. *Arterioscler Thromb Vasc Biol.* 32:386. [PubMed](#)
 8. Benndorfer ED, *et al.* 2014. *J Immunol.* 192:1671. [PubMed](#)
 9. O E, *et al.* 2014. *J Virol.* 88:7764. [PubMed](#)
 10. Shimoi A, *et al.* 2014. *J Immunol.* 193:849. [PubMed](#)
 11. Nagaoka M, *et al.* 2014. *J Immunol.* 193:2812. [PubMed](#)

Description: CD3, also known as T3, is a member of the Ig superfamily and primarily expressed on T cells, NK-T cells, and at different levels on thymocytes during T cell differentiation. CD3 is composed of CD3 ϵ , δ , γ and ζ chains. It forms a TCR complex by associating with TCR α/β or γ/δ chains. CD3 plays a critical role in TCR signal transduction, T cell activation, and antigen recognition by binding the peptide/MHC antigen complex.

Antigen
References:

1. Barclay A, *et al.* 1997. *The Leukocyte Antigen FactsBook* Academic Press.
2. Davis MM. 1990. *Annu. Rev. Biochem.* 59:475.
3. Weiss A, *et al.* 1994. *Cell* 76:263.