

**Biotin anti-mouse CD3**

**Catalog # / Size:** 1101220 / 500 µg  
1101215 / 50 µg

**Clone:** 17A2

**Isotype:** Rat IgG2b, κ

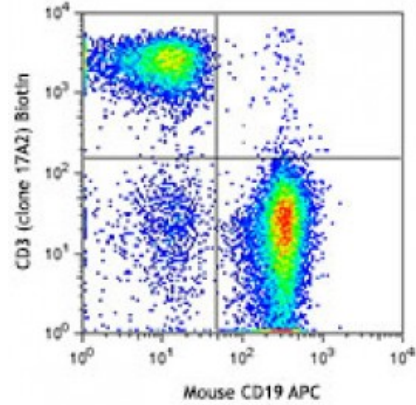
**Immunogen:** γδTCR-positive T-T hybridoma D1

**Reactivity:** Mouse

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

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

**Concentration:** 0.5



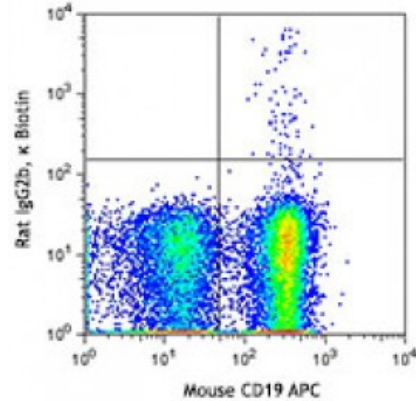
C57BL/6 splenocytes were stained with CD19 APC and biotinylated CD3 (clone 17A2) (top) or biotinylated rat IgG2b, κ isotype control (bottom), followed by SAV-PE.

**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 ≤0.125 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 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<sup>+</sup> cells *in vivo*. Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>1</sup>, complement-mediated cytotoxicity<sup>1,3</sup>, immunohistochemical staining of acetone-fixed frozen sections<sup>1,4</sup>, *in vitro* stimulation of T cells<sup>1</sup> and depletion of CD3<sup>+</sup> cells *in vivo*<sup>2</sup>. 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** 1. Miescher GC, *et al.* 1989. *Immunol. Lett.* 23:113. (IP, IHC, Activ, CMCD)
- References:** 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. Lei F, *et al.* 2013. *J Vis Exp.* 60:3986. [PubMed](#).
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**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 $\epsilon$ ,  $\delta$ ,  $\gamma$  and  $\zeta$  chains. It forms a TCR complex by associating with TCR  $\alpha/\beta$  or  $\gamma/\delta$  chains. CD3 plays a critical role in TCR signal transduction, T cell activation, and antigen recognition by binding the peptide/MHC antigen complex.

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