

**Brilliant Violet 510™ anti-mouse CD3**

**Catalog # / Size:** 1101170 / 50 µg  
1101165 / 125 µl

**Clone:** 17A2

**Isotype:** Rat IgG2b, κ

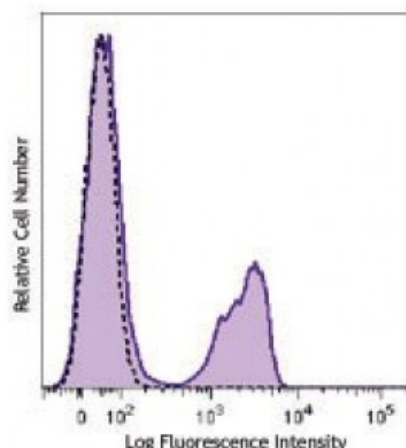
**Immunogen:** γδTCR-positive T-T hybridoma D1

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 510™ 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 (clone 17A2) Brilliant Violet 510™.

**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 using the microg size, the suggested use of this reagent is ≤0.5 microg per million cells in 100 microL volume. For flow cytometric 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 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 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 510™ is a trademark of Sirigen Group Ltd.

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**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. Cabrera-Perez J, *et al.* 2015. *J Immunol.* 194:1609. [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 CD3ε, 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** 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.