

Alexa Fluor® 488 anti-mouse CD3

Catalog # / Size: 1101050 / 100 µg
1101060 / 25 µg

Clone: 17A2

Isotype: Rat IgG2b, κ

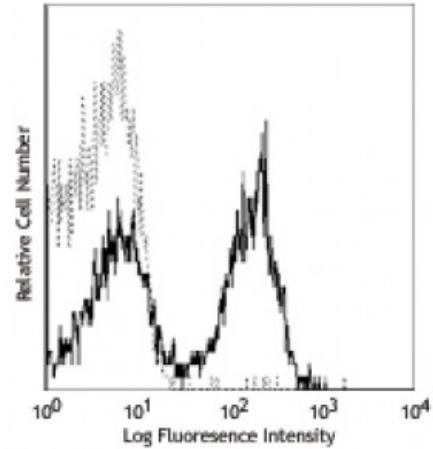
Immunogen: γδTCR-positive T-T hybridoma D1

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions.

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

Concentration: 0.5

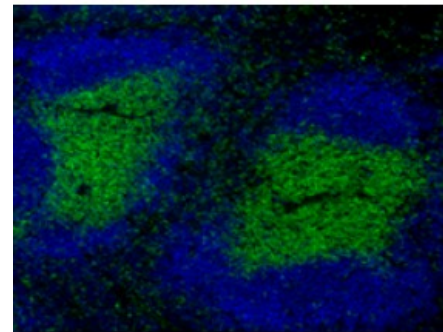


C57BL/6 mouse splenocytes stained with 17A2 Alexa Fluor® 488

Applications:

Applications: Immunofluorescence

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 million cells in 100 microL volume. For immunohistochemical staining on frozen tissue sections, the suggested use of this reagent is 5.0 - 10 microg per ml. It is recommended that the reagent be titrated for optimal performance for each application.



C57BL/6 mouse frozen spleen section was fixed with 4% paraformaldehyde (PFA) for 10 minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then, the section was stained with 10 microg/ml CD3 (Clone 17A2) Alexa Fluor®

* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.

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** 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. Wan W, *et al.* 2013. *Cardiovasc Res.* 97:580. [PubMed](#)
9. Langhauser F, *et al.* 2014. *Stroke.* 45:1799. [PubMed](#)
10. Datta S, *et al.* 2014. *J Leukoc Biol.* 95:853. [PubMed](#)
11. Hsieh CY, *et al.* 2014. *J Immunol.* 193:3693. [PubMed](#)
12. Hanihara-Tatsuzaawa F, *et al.* 2014. *J Biol Chem.* 289:30925. [PubMed](#)
13. Wan W, *et al.* 2015. *Cardiovasc Res.* 106:478. [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.