SONY

Product Data Sheet

Brilliant Violet 711™ anti-mouse CD3

Catalog # / Size: 1101205 / 50 µg

Clone: 17A2

Isotype: Rat IgG2b, κ

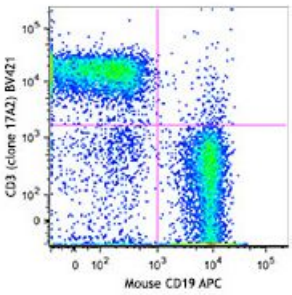
Immunogen: γδTCR-positive T-T hybridoma D1

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions.

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

Concentration: 0.2



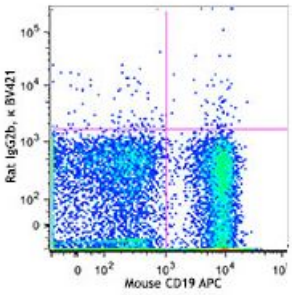
C57BL/6 splenocytes were stained with CD19 APC and CD3 (clone 17A2) Brilliant Violet 711™ (top) or rat IgG2b, κBrilliant Violet 711™ isotype control (bottom).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 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 711™ 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 $CD3^+$ 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. Mysliwietz 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-F)
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. Konnecke I, *et al.* 2014. *Bone.* PubMed
9. Steelman A, *et al*. 2013. *J Biol Chem.* 16:23776 (ICC)
10. Shi M, *et al*. 2006. *J Immunol.* 176:1724 (ICC)

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 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.

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