

Brilliant Violet 510™ anti-mouse CD16/32

Catalog # / Size: 1106665 / 50 µg

Clone: 93

Isotype: Rat IgG2a, λ

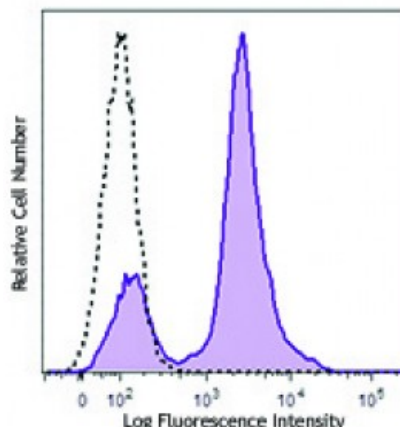
Immunogen: Sorted pre-B cells

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: 0.2



C57BL/6 mouse splenocytes were stained with CD16/32 (clone 93) Brilliant Violet 510™ (filled histogram) or rat IgG2a Brilliant Violet 510™ isotype control (open histogram).

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 ≤0.5 microg per million cells in 100 microL volume. 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.

Application Notes: Clone 93 can be used for blocking of CD16/CD32 interactions with the Fc domain of immunoglobulins, but is not the same clone as 2.4G2.

The 93 mAb is specific to the common epitope of CD16/CD32. Additional reported applications (for the relevant formats) include: immunoprecipitation¹ and blocking of Fc-mediated reactions in functional studies^{2,4,23}. It is useful for blocking non-specific binding of immunoglobulin to Fc receptors. For blocking of Fc receptors in flow cytometric analysis, pre-incubate the cells with purified anti-CD16/CD32 antibody (≤1.0 microg per 10⁶ cells in 100 microL volume) for 5-10 minutes on ice prior to immunostaining. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 101310). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 101330) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

Application References:

1. Personal communication (IP)
2. Oliver AM, *et al.* 1999. *Hybridoma* 18:113. (Block)
3. Brummel R and Lenert P. 2005. *J. Immunol.* 174:2429.

4. Terrazas LI, *et al.* 2005. *Int. J. Parasitol.* 35:1349. (Block)
5. Clements JL, *et al.* 2006. *J. Immunol.* 177:905.
6. Mohamed W, *et al.* 2010. *Infect Immun.* 78:3306. [PubMed](#)
7. Ouchi T, *et al.* 2011. *J. Exp Med.* 208:2607. [PubMed](#)
8. Kmiecik M, *et al.* 2011. *J. Vis. Exp.* 47:2381. [PubMed](#)
9. Yamazaki S, *et al.* 2012. *PLoS One.* 7:e51665. [PubMed](#)
10. Li J, *et al.* 2012. *Arthritis Rheum.* 64:1098. [PubMed](#)
11. Azuma M, *et al.* 2012. *Oncoimmunology.* 1:581. [PubMed](#)
12. Koon HW, *et al.* 2013. *J. Vis. Exp.* 68:4208. [PubMed](#)
13. Hegde VL, *et al.* 2013. *J Biol Chem.* 288:36810. [PubMed](#)
14. Huang J, *et al.* 2013. *J. Immunol Methods.* 387:254. [PubMed](#)
15. Dutow P, *et al.* 2014. *J Infect Dis.* [PubMed](#)
16. Fan Y, *et al.* 2014. *J Exp Med.* 211:313. [PubMed](#)
17. Huang HN, *et al.* 2014. *Antimicrob Agents Chemother.* 58:1538. [PubMed](#)
18. Takei S, *et al.* 2014. *Vaccine.* 32:3066. [PubMed](#)
19. Richardson ML, *et al.* 2014. *PLoS Negl Trop Dis.* 8:2825. [PubMed](#)
20. Cekanaviciute E, *et al.* 2014. *J Immunol.* 193:139. [PubMed](#)
21. Kimura T, *et al.* 2014. *Int Immunol.* 26:697. [PubMed](#)
22. Everad A, *et al.* 2014. *Nat Commun.* 5:5648. [PubMed](#)
23. Cenci E, *et al.* 2006. *J. Leuko. Biol.* 79(1):40-5. (Block)

Description: CD16 is low affinity IgG Fc receptor III (FcR III) and CD32 is FcR II. CD16/CD32 are expressed on B cells, monocytes/macrophages, NK cells, granulocytes, mast cells, and dendritic cells. The Fc receptors bind antibody-antigen immune complexes and mediate adaptive immune responses.

Antigen
References: 1. Barclay AN, *et al.* 1997. *The Leukocyte Antigen FactsBook* Academic Press.
 2. Unkeless JC. 1989. *J. Clin. Invest.* 83:355.
 3. Qiu WQ, *et al.* 1990. *Science* 248:732.