SONY

Product Data Sheet

Brilliant Violet 650™ anti-mouse CD45.1

Catalog # / Size: 1153675 / 125 µl
1153680 / 50 µg

Clone: A20

Isotype: Mouse IgG2a, κ

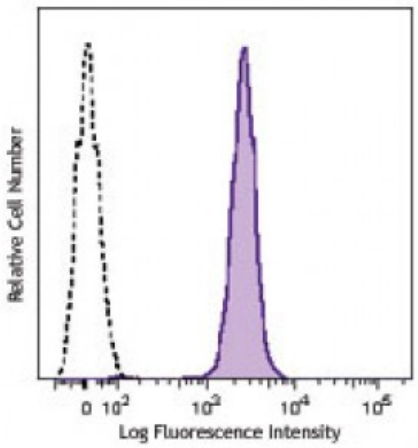
Immunogen: SJL mouse thymocytes and splenocytes

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 650™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 650™ 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



SJL mouse splenocytes were stained with CD45.1 (clone A20) Brilliant Violet 650™.

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining using the microg size, the suggested use of this reagent is ≤0.5 microg per million cells in 100 microL volume. For immunofluorescent 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 650™ excites at 405 nm and emits at 645 nm. The bandpass filter 660/20 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 650™ is a trademark of Sirigen Group Ltd.

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Application Notes: The A20 antibody does not react with leukocytes or mouse cells expressing the CD45.2 alloantigen. Additional reported applications (for relevant formats of this clone) include: immunoprecipitation3, *in vitro* blocking of B cell responses[1,2], immunohistochemical staining of frozen sections: OCT embedded[7] and acetone-fixed[4-6] (direct immunofluorescence detection with fluorochrome conjugated A20 was used in (5) and (6)), and immunofluorescence microscopy[9].

Application

1. Yakura H, *et al.* 1983. *J. Exp. Med.* 157:1077. (Block)

References:
2. Yakura H, *et al.* 1986. *J. Immunol.* 136:2729. (Block)
3. Shen FW, *et al.* 1986. *Immunogenetics* 24:146. (IP)
4. Suzuki K, *et al.* 2000. *Immunity* 13:691. (IHC)
5. Werner N, *et al.* 2002. *Arterioscler. Thromb. Vasc. Biol.* 22:1567. (IHC)
6. Lessner SM, *et al.* 2002. *Am. J. Pathol.* 160:2145. (FC, IHC)
7. Chen CC, *et al.* 2005. *P. Natl. Acad. Sci. USA* 102:11408 (IHC)
8. Pascal V, *et al.* 2007. *J. Immunol.* 179:1751. (FC)
9. Mende I, *et al.* 2006. *Blood* 107:1383. (IF, IHC, FC)
10. Phan TG, *et al.* 2007. *Nature Immunol.* 8:992. (FC)
11. Wither DR, *et al.* 2009. *J. Immunol.* 183:5079. PubMed
12. Pascal V, *et al.*2007. *J. Immunol.* 179:1751. PubMed
13. Lee SW, *et al.* 2009. *J. Immunol.* 182:6753. PubMed
14. Takada K, *et al.* 2009. *J. Exp Med.* 206:2253. PubMed
15. Beamer CA, *et al.* 2007. *Am. J. Respir. Cell. Mol. Biol.* 37:729. (FC) PubMed
16. Li LX, *et al.* 2010. *J. Immunol.* 184:1728. PubMed
17. Hosoi A, *et al.* 2008. *Cancer Res.* 68:3941. (FC) PubMed
18. Kenna TJ, *et al.* 2008. *Blood* 111:2091. PubMed
19. Kohlmeier JE, *et al.* 2008. *Immunity.* 29:101. (FC) PubMed
20. Doni A, *et al.* 2015. *J Exp Med.* 212:905. PubMed
21. Toomey CB, *et al.* 2015. *PNAS.* 112:3040. PubMed

Description: CD45.1 is an alloantigen of CD45, expressed by Ly5.1 bearing mouse strains (e.g., RIII, SJL/J, STS/A, DA). CD45, a member of the protein tyrosine phosphatase (PTP) family, is a 180-240 kD glycoprotein expressed on all hematopoietic cells except mature erythrocytes and platelets. There are multiple isoforms in mice that play key roles in TCR and BCR signal transduction. These isoforms are very specific to the activation and maturation states of the cell as well as specific cell types. The primary ligands for CD45 are galectin-1, CD2, CD3, CD4, TCR, CD22, and Thy-1.

Antigen References:
1. Barclay A, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Trowbridge IS, *et al.* 1993. *Annu. Rev. Immunol.* 12:85.
3. Kishihara K, *et al.* 1993. *Cell* 74:143.
4. Pulido R, <