Product Data Sheet

PE/Dazzle™ 594 anti-mouse CD45.1

Catalog # / Size: 1153740 / 100 μg

1153735 / 25 μg

Clone: A20

Isotype: Mouse IgG2a, κ

Immunogen: SJL mouse thymocytes and splenocytes

Reactivity: Mouse

Preparation: The antibody was purified by affinity

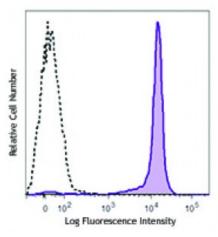
chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and

unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide.

Concentration: 0.2



SJL mouse splenocytes were stained with CD45.1 (clone A20)

PE/Dazzle[™] 594 (filled histogram) or mouse IgG2a, κ PE/Dazzle[™] 594 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 ≤0.25 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

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 embedded⁷ and acetone-fixed⁴⁻⁶ (direct immunofluorescence detection with fluorochrome conjugated A20 was used in (5) and (6)), and immunofluorescence microscopy⁹.

Application References:

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

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. <u>PubMed</u> 13. Lee SW, *et al.* 2009. *J. Immunol.* 182:6753. <u>PubMed</u>

14. Takada K, *et al.* 2009. *J. Exp Med.* 206:2253. <u>PubMed</u>

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

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, <