

**PE/Cy7 anti-mouse CD45.1**

**Catalog # / Size:** 1153645 / 25 µg  
1153650 / 100 µg

**Clone:** A20

**Isotype:** Mouse IgG2a, κ

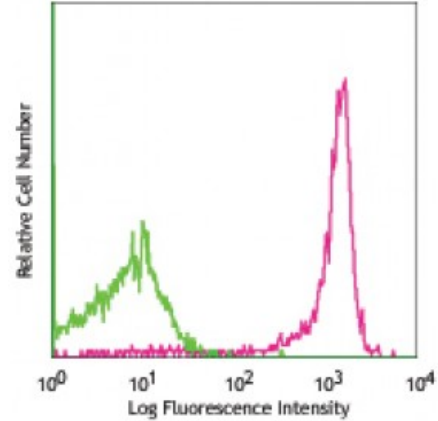
**Immunogen:** SJL mouse thymocytes and splenocytes

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 and unconjugated antibody.

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

**Concentration:** 0.2



SJL splenocytes stained with A20 PE/Cy7

**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 10<sup>6</sup> cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

**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: immunoprecipitation<sup>3</sup>, *in vitro* blocking of B cell responses<sup>1,2</sup>, immunohistochemical staining of frozen sections: OCT embedded<sup>7</sup> and acetone-fixed<sup>4-6</sup> (direct immunofluorescence detection with fluorochrome conjugated A20 was used in (5) and (6)), and immunofluorescence microscopy<sup>9</sup>.

- 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. [PubMed](#)
  13. Lee SW, *et al.* 2009. *J. Immunol.* 182:6753. [PubMed](#)
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  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, <