SONY

Product Data Sheet

APC/Fire™ 750 anti-mouse CD45.1

Catalog # / Size: 1153755 / 25 µg
1153760 / 100 µg

Clone: A20

Isotype: Mouse (A.SW) IgG2a, κ

Immunogen: SJL mouse thymocytes and splenocytes

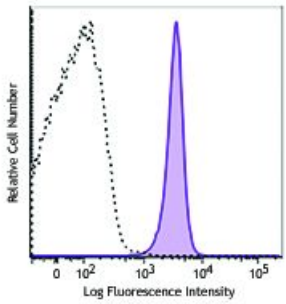
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions.

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

Workshop Number: 750 under optimal conditions.

Concentration: 0.2



SJL mouse splenocytes were stained with CD45.1 (clone A20) APC/Fire™ 750 (filled histogram) or mouse IgG2a, κAPC/Fire™ 750 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 ≤1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 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: immunoprecipitation[3], *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)).

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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-F)
5. Werner N, *et al.* 2002. *Arterioscler. Thromb. Vasc. Biol.* 22:1567. (IHC-F)
6. Lessner SM, *et al.* 2002. *Am. J. Pathol.* 160:2145. (FC, IHC-F)
7. Chen CC, *et al.* 2005. *P. Natl. Acad. Sci. USA* 102:11408 (IHC-F)
8. Pascal V, *et al.* 2007. *J. Immunol.* 179:1751. (FC)
9. Mende I, *et al.* 2006. *Blood* 107:1383. (IHC-F, 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

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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, *et al.* 1988. *J. Immunol.* 140:3851.

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