

PE/Dazzle™ 594 anti-mouse CD8a

Catalog # / Size: 1103810 / 100 µg
1103805 / 25 µg

Clone: 53-6.7

Isotype: Rat IgG2a, κ

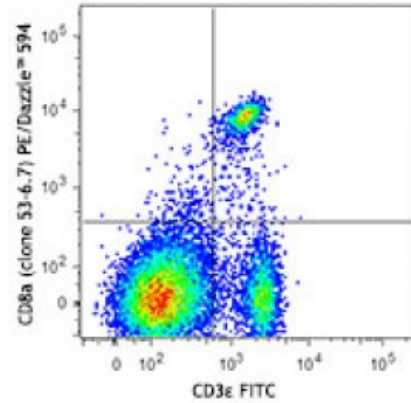
Immunogen: Mouse thymus or spleen

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



C57BL/6 mouse splenocytes were stained with CD3ε FITC and CD8a (clone 53-6.7) PE/Dazzle™ 594 (top) or rat IgG2a, κ PE/Dazzle™ 594 isotype control (bottom).

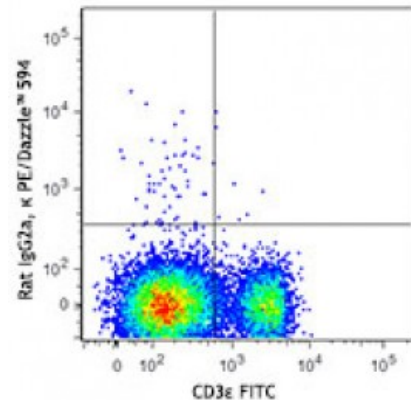
Applications:

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 ≤0.125 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: Clone 53-6.7 antibody competes with clone 5H10-1 antibody for binding to thymocytes³. The 53-6.7 antibody has been reported to block antigen presentation via MHC class I and inhibit T cell responses to IL-2. This antibody has also been used for depletion of CD8a⁺ cells. Additional reported applications (for the relevant formats) include: immunoprecipitation^{1,3}, *in vivo* and *in vitro* cell depletion^{2,10,15}, inhibition of CD8 T cell proliferation³, blocking of cytotoxicity^{3,4}, and immunohistochemical staining^{5,6} of acetone-fixed frozen sections and zinc-fixed paraffin-embedded sections. Clone 53-6.7 is not recommended for



immunohistochemistry of formalin-fixed paraffin sections. The LEAF™ purified antibody (Endotoxin <0.1 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 100716). For *in vivo* studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 100746) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

- Application**
- References:**
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 6. Fan WY, *et al.* 2001. *Exp. Biol. Med.* 226:1045. (IHC)
 7. Shih FF, *et al.* 2006. *J. Immunol.* 176:3438. (FC)
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 23. Medyouf H, *et al.* 2010. *Blood* 115:1175. [PubMed](#)
 24. Riedl P, *et al.* 2009. *J. Immunol.* 183:370. [PubMed](#)
 25. Apte SH, *et al.* 2010. *J. Immunol.* 185:998. [PubMed](#)
 26. Bankoti J, *et al.* 2010. *Toxicol. Sci.* 115:422. (FC) [PubMed](#)
 27. del Rio ML, *et al.* 2011. *Transpl. Int.* 24:501. (FC) [PubMed](#)

Description: CD8, also known as Lyt-2, Ly-2, or T8, consists of disulfide-linked α and β chains that form the α(CD8a)/β(CD8b) heterodimer and α/α homodimer. CD8a is a 34 kD protein that belongs to the immunoglobulin family. The CD8 α/β heterodimer is expressed on the surface of most thymocytes and a subset of mature TCR α/β T cells. CD8 expression on mature T cells is non-overlapping with CD4. The CD8 α/α homodimer is expressed on a subset of γ/δ TCR-bearing T cells, NK cells, intestinal intraepithelial lymphocytes, and lymphoid dendritic cells. CD8 is an antigen co-receptor on T cells that interacts with MHC class I on antigen-presenting cells or epithelial cells. CD8 promotes T cell activation through its association with the TCR complex and protein tyrosine kinase lck.

- Antigen**
- References:**
1. Barclay A, *et al.* 1997. *The Leukocyte Antigen FactsBook* Academic Press.
 2. Zamoyska R. 1994. *Immunity* 1:243.
 3. Ellmeier W, *et al.* 1999. *Annu. Rev. Immunol.* 17:523.