

**PE/Cy7 anti-mouse CD8a**

**Catalog # / Size:** 1103610 / 100 µg  
1103605 / 25 µg

**Clone:** 53-6.7

**Isotype:** Rat IgG2a, κ

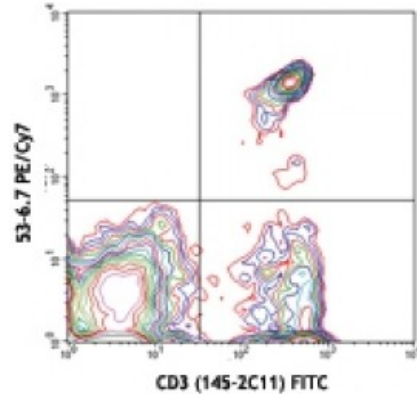
**Immunogen:** Mouse thymus or spleen

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE/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



C57BL/6 splenocytes were stained with CD8 (clone 53-6.7) PE/Cy7 and CD3 FITC.

**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:** Clone 53-6.7 antibody competes with clone 5H10-1 antibody for binding to thymocytes<sup>3</sup>. 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<sup>+</sup> cells. Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>1,3</sup>, *in vivo* and *in vitro* cell depletion<sup>2,10,15</sup>, inhibition of CD8 T cell proliferation<sup>3</sup>, blocking of cytotoxicity<sup>3,4</sup>, and immunohistochemical staining<sup>5,6</sup> 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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**Description:** CD8, also known as Lyt-2, Ly-2, or T8, consists of disulfide-linked  $\alpha$  and  $\beta$  chains that form the  $\alpha$ (CD8a)/ $\beta$ (CD8b) heterodimer and  $\alpha/\alpha$  homodimer. CD8a is a 34 kD protein that belongs to the immunoglobulin family. The CD8  $\alpha/\beta$  heterodimer is expressed on the surface of most thymocytes and a subset of mature TCR  $\alpha/\beta$  T cells. CD8 expression on mature T cells is non-overlapping with CD4. The CD8  $\alpha/\alpha$  homodimer is expressed on a subset of  $\gamma/\delta$  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:**

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