

## Technical Data Sheet

### APC Anti-Mouse CD8a

**Catalog Number:** 201013, 201014  
**Size:** 25 tests, 100 tests  
**Target Name:** CD8, CD8 alpha, T8, Lyt2, Ly-2  
**Regulatory Status:** RUO

#### Product Details

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**Clone:** 53-6.7  
**Application:** FC  
**Reactivity:** Mouse  
**Format:** APC  
**Isotype:** Rat IgG2a  
**Antibody Type:** Monoclonal  
**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA  
**Protein Concentration:** Supplied at a lot-specific concentration.  
**Storage&Handling:** The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.  
**Recommended Usage:** For flow cytometric staining, it is recommended to use 5 µL of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application.  
**Excitation Laser:** Red Laser (633 nm)  
**Release Date:** Nov-25

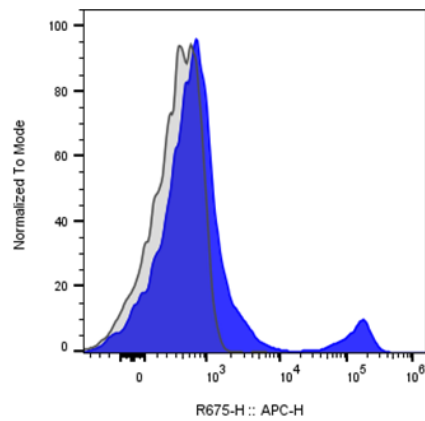
#### Background Information

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CD8, also known as Lyt-2, Ly-2, or T8, is a cell surface glycoprotein that functions as a co-receptor for antigen recognition and T cell activation. It is typically expressed as a disulfide-linked heterodimer of CD8 $\alpha$  and CD8 $\beta$  (CD8 $\alpha\beta$ ), though CD8 $\alpha$  can also form homodimers (CD8 $\alpha\alpha$ ). The CD8 $\alpha$  chain is an approximately 32–34 kDa protein of the immunoglobulin superfamily. CD8 $\alpha\beta$  heterodimers are expressed on most thymocytes and a subset of mature TCR $\alpha\beta$  T cells, while CD8 $\alpha\alpha$  homodimers are found on subsets of  $\gamma\delta$  T cells, intestinal intraepithelial lymphocytes (IELs), NK cells, and some dendritic cells. CD8 binds to MHC class I molecules on antigen-presenting or target cells and, through its cytoplasmic domain association with the tyrosine kinase p56<sup>lck</sup>, facilitates intracellular signaling events essential for T cell development, activation, and cytotoxic effector function. CD8<sup>+</sup> cytotoxic T lymphocytes (CTLs) play a key role in eliminating virus-infected cells, tumor cells, and cells infected by intracellular pathogens.

#### Product Data

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Mouse splenocytes were stained either APC Anti-Mouse CD8a clone 53-6.7 (color-filled histogram) or an isotype control (gray histogram).