

PE/Dazzle™ 594 anti-human CD8a

Catalog # / Size: 2105285 / 25 tests
2105290 / 100 tests

Clone: RPA-T8

Isotype: Mouse IgG1, κ

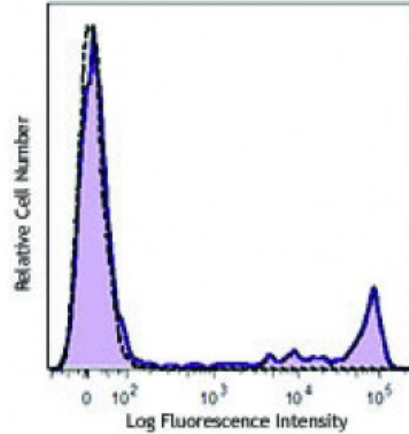
Reactivity: Human

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 and 0.2% (w/v) BSA (origin USA).

Workshop Number: IV T171

Concentration: Lot-specific



Human peripheral blood lymphocytes were stained with CD8 (clone RPA-T8) PE/Dazzle™ 594 (filled histogram) or mouse IgG1, κ PE/Dazzle™ 594 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 5 microL per million cells or 5 microL per 100 microL of whole blood. 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: The RPA-T8 antibody does not block the binding of HIT8a antibody to CD8a. Additional reported applications of this antibody (for the relevant formats) include: immunohistochemical staining of paraformaldehyde-fixed frozen sections³ and costimulation of T cell responses⁴. This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue. The LEAF™ purified antibody (Endotoxin <0.1 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 301018).

- Application References:**
- Knapp W, *et al.* Eds. 1989. Leucocyte Typing IV. Oxford University Press. New York.
 - Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
 - Mack CL, *et al.* 2004. *Pediatr. Res.* 56:79. (IHC)
 - Magidovich E, *et al.* 2007. *P. Natl. Acad. Sci. USA* 104:13022.
 - Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. [PubMed](#)
 - Kmieciak M, *et al.* 2009. *J. Transl. Med.* 7:89. (FC) [PubMed](#)
 - Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. (FC) [PubMed](#)
 - Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
 - Rout N, *et al.* 2010. *PLoS One* 5:e9787. (FC)

Description: CD8a is a 32-34 kD type I glycoprotein. It forms a homodimer (CD8a/a) or

heterodimer (CD8a/b) with CD8b. CD8, also known as T8 and Leu2, is a member of the immunoglobulin superfamily found on the majority of thymocytes, a subset of peripheral blood T cells, and NK cells (which express almost exclusively CD8a homodimers). CD8 acts as a co-receptor with MHC class I-restricted T cell receptors in antigen recognition and T cell activation, and has been shown to play a role in thymic differentiation. Two domains in CD8a are important for function: the extracellular IgSF domain binds the α_3 domain of MHC class I and the cytoplasmic CXCP motif binds the tyrosine kinase p56 Lck.

- Antigen**
References:
1. Barclay N, *et al.* 1993. The Leucocyte Antigen FactsBook. Academic Press Inc. San Diego.