

## PE/Cy7 anti-human CD8a

**Catalog # / Size:** 301012 / 100 tests

**Clone:** RPA-T8

**Isotype:** Mouse IgG1,  $\kappa$

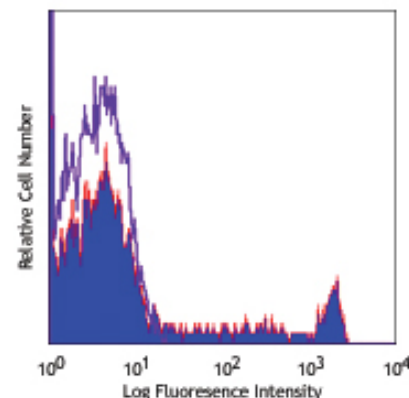
**Workshop Number:** IV T171

**Reactivity:** Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Sooty Mangabey

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

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood lymphocytes stained with RPA-T8 PE/Cy7

## Applications:

**Applications:** FC - Quality tested

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20  $\mu$ l to 5  $\mu$ l per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100  $\mu$ l staining volume or per 100  $\mu$ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Read more at [www.biolegend.com/testsize](http://www.biolegend.com/testsize) regarding the test size change.

**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 sections<sup>3</sup> and costimulation of T cell responses<sup>4</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m filtered) is recommended for functional assays (Cat. No. 301018).

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- 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  $\alpha_3$  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.

Related Products:	Product	Clone	Application
	PE/Cy7 anti-human CD4	RPA-T4	FC
	PE anti-human CD3	UCHT1	FC
	Cell Staining Buffer		FC, ICC, ICFC
	RBC Lysis Buffer (10X)		FC, ICFC
	PE anti-human CD56 (NCAM)	MEM-188	FC
	PE/Cy7 anti-human CD3	HIT3a	FC
	PE/Cy7 anti-human CD8a	HIT8a	FC
	PE/Cy7 Mouse IgG1, $\kappa$ Isotype Ctrl	MOPC-21	FC, ICFC
	Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



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