

# Product Data Sheet

## Biotin anti-human CD8a

**Catalog # / Size:** 301003 / 25 µg  
301004 / 100 µg

**Clone:** RPA-T8

**Isotype:** Mouse IgG1, κ

**Workshop Number:** IV T171

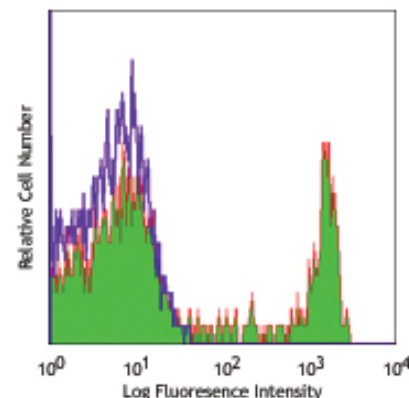
**Reactivity:** Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Sooty Mangabey

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C. **Do not freeze.**



Human peripheral blood lymphocytes stained with biotinylated RPA-T8, followed by Sav-PE

## Applications:

**Applications:** FC - Quality tested

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤0.125 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

**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/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
- Kniciak 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<sub>3</sub> 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
Biotin anti-human CD3	HIT3a	FC
Biotin anti-human CD8a	HIT8a	FC
Biotin anti-human CD4	RPA-T4	FC
Biotin anti-human CD3	UCHT1	FC
Biotin Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC
APC Streptavidin		FC, ICFC
APC/Cy7 Streptavidin		FC, ICFC
FITC Streptavidin		FC, ICFC
HRP Streptavidin		ELISA, ELISPOT, IHC, WB
PE Streptavidin		FC, ICFC
PE/Cy5 Streptavidin		FC, ICFC
PE/Cy7 Streptavidin		FC, ICFC
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC
FITC anti-human CD56 (NCAM)	MEM-188	FC



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