

Product Data Sheet

Pacific Blue™ anti-human CD8a

Catalog # / Size: 301026 / 25 µg
 301023 / 100 µg
 301033 / 100 tests

Clone: RPA-T8

Isotype: Mouse IgG1, κ

Workshop Number: IV T171

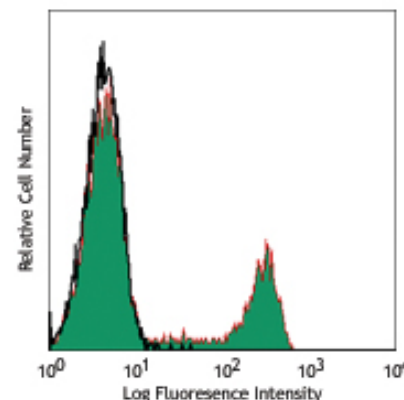
Reactivity: Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Sooty Mangabey

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

Formulation: test size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
 µg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: test sizes: lot-specific; µg sizes: 0.5 mg/ml

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 Pacific Blue™

Applications:

Applications: FC - Quality tested

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For test size, the suggested use of this reagent for immunofluorescent staining is 5 µl per 10⁶ cells in 100 µl volume. For µg sizes, the suggested use of this reagent for immunofluorescent staining is ≤0.25 µg per 10⁶ cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

** Pacific Blue™ is a registered trademark of Molecular Probes, Inc. Pacific Blue™ dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

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. 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 α₃ 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
 Pacific Blue™ Mouse IgG1, κ Isotype Ctrl
 Cell Staining Buffer

Clone
 MOPC-21

Application
 FC, ICFC
 FC, ICC, ICFC



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RBC Lysis Buffer (10X)
Human TruStain FcX™ (Fc Receptor Blocking Solution)

FC, ICFC
FC, ICC, ICFC



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