

Pacific Blue™ anti-human CD4

Catalog # / Size: 2102620 / 25 µg
2102605 / 100 µg

Clone: RPA-T4

Isotype: Mouse IgG1, κ

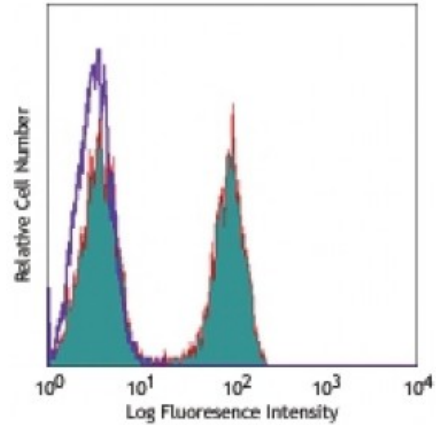
Reactivity: Human

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

Workshop Number: IV T114

Concentration: 0.5



Human peripheral blood lymphocytes stained with RPA-T4 Pacific Blue™

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. The suggested use of this reagent is ≤ 2.0 microg per 10⁶ cells in 100 microL volume or 100 microL of whole blood. It is highly 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.

Application Notes: The RPA-T4 antibody binds to the D1 domain of CD4 (CDR1 and CDR3 epitopes) and can block HIV gp120 binding and inhibit syncytia formation. Additional reported applications (for the relevant formats) include: immunohistochemistry of acetone-fixed frozen sections^{3,4,5}, and blocking of T cell activation^{1,2}. 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. 300516).

- Application References:**
1. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York. (Activ)
 2. Moir S, *et al.* 1999. *J. Virol.* 73:7972. (Activ)
 3. Deng MC, *et al.* 1995. *Circulation* 91:1647. (IHC)
 4. Friedman T, *et al.* 1999. *J. Immunol.* 162:5256. (IHC)
 5. Mack CL, *et al.* 2004. *Pediatr. Res.* 56:79. (IHC)
 6. Lan RY, *et al.* 2006. *Hepatology* 43:729.
 7. Zenaro E, *et al.* 2009. *J. Leukoc. Biol.* 86:1393. (FC) [PubMed](#)
 8. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)

Description: CD4, also known as T4, is a 55 kD single-chain type I transmembrane glycoprotein expressed on most thymocytes, a subset of T cells, and monocytes/macrophages. CD4, a member of the Ig superfamily, recognizes antigens associated with MHC class II molecules, and participates in cell-cell interactions, thymic differentiation,

and signal transduction. CD4 acts as a primary receptor for HIV, binding to HIV gp120. CD4 has also been shown to interact with IL-16.

- Antigen**
- References:**
1. Center D, *et al.* 1996. *Immunol. Today* 17:476.
 2. Gaubin M, *et al.* 1996. *Eur. J. Clin. Chem. Clin. Biochem.* 34:723.