

**APC anti-human CD4**

**Catalog # / Size:** 2102570 / 100 tests  
 2102685 / 500 tests  
 2102760 / 100 µg

**Clone:** RPA-T4

**Isotype:** Mouse IgG1, κ

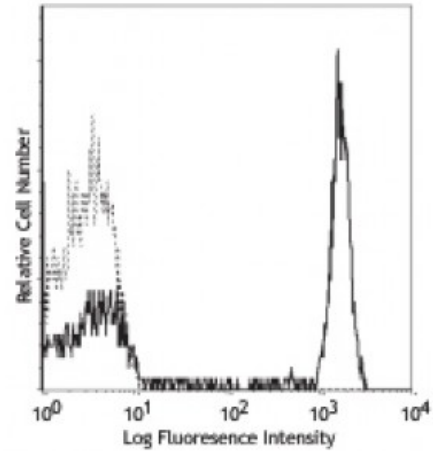
**Reactivity:** Human

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

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

**Workshop Number:** IV T114

**Concentration:** microg sizes: 0.2 mg/ml  
 test sizes: lot-specific



Human peripheral blood lymphocytes stained with RPA-T4 PE

**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 using the microg size, the suggested use of this reagent is ≤0.25 microg per million cells in 100 microL volume. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**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<sup>3,4,5</sup>, and blocking of T cell activation<sup>1,2</sup>. 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** 1. Center D, *et al.* 1996. *Immunol. Today* 17:476.  
**References:** 2. Gaubin M, *et al.* 1996. *Eur. J. Clin. Chem. Clin. Biochem.* 34:723.