

**Alexa Fluor® 647 anti-human CD4**

**Catalog # / Size:** 2102600 / 100 tests  
2102615 / 25 tests

**Clone:** RPA-T4

**Isotype:** Mouse IgG1, κ

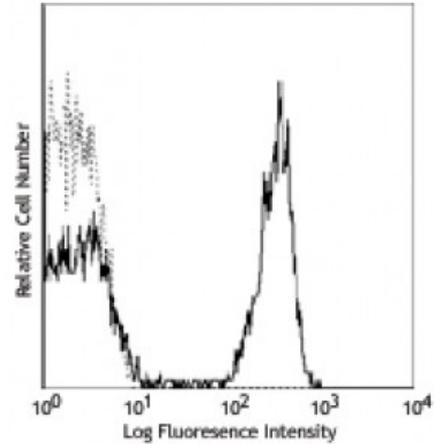
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions.

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

**Workshop Number:** IV T114

**Concentration:** Lot-specific



Human peripheral blood lymphocytes stained with RPA-T4 Alexa Fluor® 647

**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, the suggested use of this reagent is 5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.

**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:**

- Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York. (Activ)
- Moir S, *et al.* 1999. *J. Virol.* 73:7972. (Activ)
- Deng MC, *et al.* 1995. *Circulation* 91:1647. (IHC)
- Friedman T, *et al.* 1999. *J. Immunol.* 162:5256. (IHC)
- Mack CL, *et al.* 2004. *Pediatr. Res.* 56:79. (IHC)
- Lan RY, *et al.* 2006. *Hepatology* 43:729.
- Zenaro E, *et al.* 2009. *J. Leukoc. Biol.* 86:1393. (FC) [PubMed](#)
- 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.