

# FITC Anti-Human CD4 (RPA-T4) Antibody

Catalog # ATB10096

#### Specification

# FITC Anti-Human CD4 (RPA-T4) Antibody - Product Information

Application Isotype Concentration Reactivity Formulation

Host

FC Mouse IgG1, kappa 5 uL (1 ug)/test Human 10 mM NaH2PO4, 150 mM NaCl, 0.09% NaN3, 0.1% gelatin, pH7.2 Mouse

### FITC Anti-Human CD4 (RPA-T4) Antibody - Additional Information

Gene ID Gene Name Alternative Name(s) Leu-3, T4 920 CD4

Format FITC

#### Preparation

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

#### **Application Notes**

This antibody preparation has been pre-titrated and quality-tested for flow cytometry using an appropriate cell type. The antibody has been diluted for use at 5 uL per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 uL. The number of cells within a sample should be determined empirically, but typically ranges between 1x10e5 to 1x10e8 cells.

**Storage Conditions** 2-8°C protected from light

#### FITC Anti-Human CD4 (RPA-T4) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

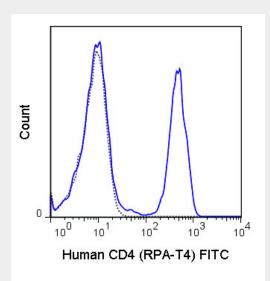
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence



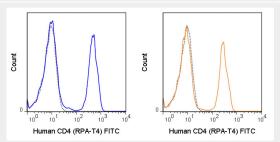
# Immunoprecipitation

- Flow Cytomety
- <u>Cell Culture</u>

FITC Anti-Human CD4 (RPA-T4) Antibody - Images



Human peripheral blood lymphocytes were stained with 5 uL (1 ug) FITC Anti-Human CD4 (ATB10096) (solid line) or 1 ug FITC Mouse IgG1 isotype control.



Human peripheral blood lymphocytes were stained with the recommended volume of FITC Anti-Human CD4 (RPA-T4) manufactured by Tonbo Biosciences (left panel) or BD Biosciences (right panel).

# FITC Anti-Human CD4 (RPA-T4) Antibody - Background

The RPA-T4 antibody reacts with human CD4, a 59 kDa protein which acts as a co-receptor for the T cell receptor (TCR) in its interaction with MHC Class II molecules on antigen-presenting cells. The extracellular domain of CD4 binds to the beta-2 domain of MHC Class II, while its cytoplasmic tail provides a binding site for the tyrosine kinase lck, facilitating the signaling cascade that initiates T cell activation. CD4, and co-receptors CCR5 and CXCR4, may also be utilized by HIV-1 to enter T cells. Human CD4 is typically expressed on thymocytes, some mature T cell populations such as Th17 and T regulatory (Treg) cells, as well as on dendritic cells. The RPA-T4 antibody is widely used as a phenotypic marker for human CD4 expression, and is cross-reactive with Chimpanzee CD4. This antibody recognizes a different epitope, and thus does not block binding of, the alternative Anti-Human CD4 antibody clone OKT4 (Reinherz EL, et al. 1979. Proc. Natl. Acad. Sci. 76:4061-4065).