PE anti-human CD4 Antibody

**Catalog# / Size**
- 300507 / 25 tests
- 300508 / 100 tests
- 300550 / 100 µg
- 300539 / 500 tests

**Clone**
RPA-T4 (See other available formats)

**Workshop**
IV T114

**Other Names**
T4

**Isotype**
Mouse IgG1, κ

**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.

**Product Details**

**Reactivity**
Human, Chimpanzee, Cynomolgus

**Antibody Type**
Monoclonal

**Host Species**
Mouse

**Formulation**
- µg 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).

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

**Concentration**
- µg sizes: 0.2 mg/ml
- test sizes: lot-specific (please contact technical support for concentration and total µg amount)

**Storage & Handling**
The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.

**Application**
FC - Quality tested

**Recommended Usage**
Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining using the µg size, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. For flow cytometric staining using the test sizes, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

**Excitation Laser**
- Blue Laser (488 nm)
- Green Laser (532 nm)/Yellow-Green Laser (561 nm)

**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, and blocking of T cell activation. 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**

**Product Citations**

RRID
AB_314075 (BioLegend Cat. No. 300507)
AB_314076 (BioLegend Cat. No. 300508)
AB_2564152 (BioLegend Cat. No. 300550)
AB_2562053 (BioLegend Cat. No. 300539)

Antigen Details

Structure  Ig superfamily, type I transmembrane glycoprotein, 55 kD
Distribution  T cell subset, majority of thymocytes, monocytes/macrophages
Function  MHC class II co-receptor, lymphocyte adhesion, thymic differentiation, HIV receptor
Ligand Receptor  MHC class II molecules, HIV gp120, IL-16
Cell Type  Dendritic cells, Macrophages, Monocytes, T cells, Thymocytes, Tregs
Biology Area  Immunology
Molecular Family  CD Molecules
Gene ID  920

Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats


Product Data

Human peripheral blood lymphocytes stained with RPA-T4 PE

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