

## CD4 Fluorophore Sampler Kit

**Catalog# / Size** 300561 / 1 kit

**Clone** RPA-T4

**Regulatory Status** RUO

**Other Names** T4

**Isotype** Mouse IgG1, κ

**Description** The CD4 Fluorophore Sampler Kit contains 18 different fluorophore formats of clone RPA-T4 with 10 tests of each antibody per vial. It can be useful to have the same clone in multiple fluorophore formats to enable instrument characterization and standardization.

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.

### Kit Contents

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**Kit Contents**

The CD4 Fluorophore Sampler Kit contains the following fluorophore formats of clone RPA-T4, with 10 tests of each antibody per vial:

- Pacific Blue™
- Brilliant Violet 421™
- Brilliant Violet 510™
- Brilliant Violet 570™
- Brilliant Violet 605™
- Brilliant Violet 650™
- Brilliant Violet 711™
- Brilliant Violet 785™
- PerCP/Cyanine5.5
- PE
- PE/Dazzle™ 594
- PE/Cyanine5
- PE/Cyanine7
- Alexa Fluor® 647
- APC
- Alexa Fluor® 700
- APC/Fire™ 750
- FITC

### Product Details

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**Verified Reactivity** Human, Chimpanzee

**Antibody Type** Monoclonal

**Host Species** Mouse

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

**Preparation** The antibodies were purified by affinity chromatography and conjugated under optimal conditions.

**Concentration** Lot-specific (to obtain lot-specific concentration, please enter the lot number in our [Concentration](#)

[and Expiration Lookup](#) or [Certificate of Analysis](#) online tools.)

#### Storage & Handling

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

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#### Excitation Laser

Violet Laser (405 nm)  
Blue Laser (488 nm)  
Green Laser (532 nm)/Yellow-Green Laser (561 nm)  
Red Laser (633 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<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

(PubMed link indicates BioLegend citation)

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)

## Antigen Details

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#### 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

B cells, Dendritic cells, Macrophages, Monocytes, T cells, Thymocytes, Tregs

#### Biology Area

Immunology

#### Molecular Family

CD Molecules

#### 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.

#### Gene ID

[920](#)

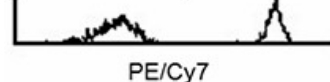
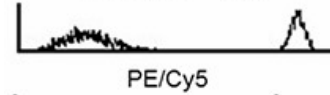
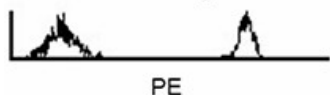
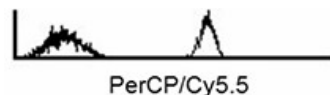
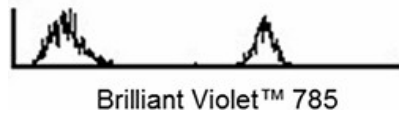
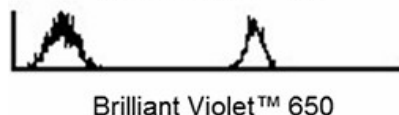
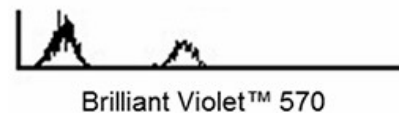
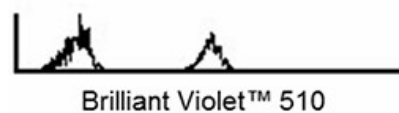
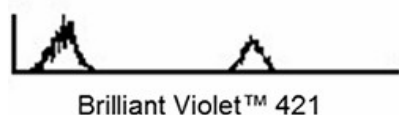
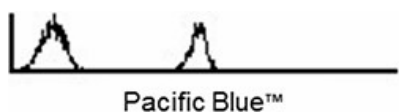
## Related Protocols

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## Other Formats

APC anti-human CD4, Biotin anti-human CD4, FITC anti-human CD4, PE anti-human CD4, PE/Cyanine5 anti-human CD4, PE/Cyanine7 anti-human CD4, Purified anti-human CD4, APC/Cyanine7 anti-human CD4, Alexa Fluor® 488 anti-human CD4, Alexa Fluor® 647 anti-human CD4, Pacific Blue™ anti-human CD4, Brilliant Violet 421™ anti-human CD4, Alexa Fluor® 700 anti-human CD4, PerCP anti-human CD4, PerCP/Cyanine5.5 anti-human CD4, Brilliant Violet 570™ anti-human CD4, Brilliant Violet 650™ anti-human CD4, Purified anti-human CD4 (Maxpar® Ready), Alexa Fluor® 594 anti-human CD4, Brilliant Violet 510™ anti-human CD4, PE/Dazzle™ 594 anti-human CD4, Brilliant Violet 785™ anti-human CD4, Brilliant Violet 605™ anti-human CD4, Brilliant Violet 711™ anti-human CD4, APC/Fire™ 750 anti-human CD4, CD4 Fluorophore Sampler Kit, CD4 Fluorophore Sampler Kit with Veri-Cells™ PBMC, TotalSeq™-A0072 anti-human CD4, TotalSeq™-B0072 anti-human CD4, TotalSeq™-C0072 anti-human CD4, Ultra-LEAF™ Purified anti-human CD4, TotalSeq™-D0072 anti-human CD4

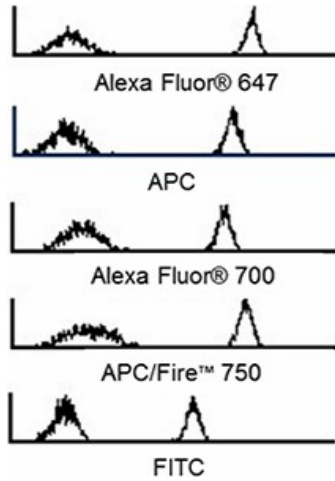
## Product Data



Veri-Cells™ PBMC were stained with anti-human CD4 (clone RPA-T4) in each fluorophore conjugate separately.

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