

Biotin anti-human CD4

Catalog # / Size: 300504 / 100 µg

Clone: RPA-T4

Isotype: Mouse IgG1, κ

Workshop Number: IV T114

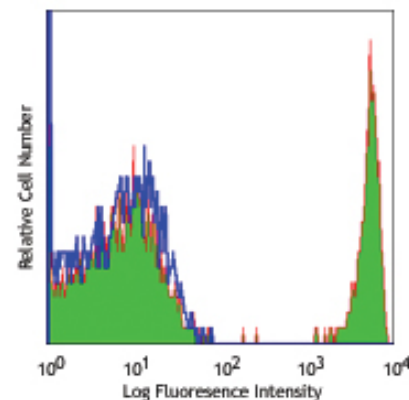
Reactivity: Human, **Cross-Reactivity:** Chimpanzee

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

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C. **Do not freeze.**



Human peripheral blood lymphocytes stained with biotinylated RPA-T4, followed by Sav-PE

Applications:

Applications: FC - Quality tested

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤1.0 µg per million cells in 100 µl volume. 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^{3,4,5} of acetone-fixed frozen sections, and blocking of T cell activation^{1,2}. 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 References:

- Center D, *et al.* 1996. *Immunol. Today* 17:476.
- Gaubin M, *et al.* 1996. *Eur. J. Clin. Chem. Clin. Biochem.* 34:723.

| Related Products: | Product | Clone | Application |
|-------------------|---|---------|-------------------------|
| | Biotin anti-human CD184 (CXCR4) | 12G5 | FC |
| | FITC anti-human CD25 | BC96 | FC |
| | Biotin anti-human CD3 | HIT3a | FC |
| | Biotin anti-human CD8a | HIT8a | FC |
| | Biotin anti-human CD3 | UCHT1 | FC |
| | Biotin Mouse IgG1, κ Isotype Ctrl | MOPC-21 | FC, ICFC |
| | APC Streptavidin | | FC, ICFC |
| | APC/Cy7 Streptavidin | | FC, ICFC |
| | HRP Streptavidin | | ELISA, ELISPOT, IHC, WB |
| | PE Streptavidin | | FC, ICFC |
| | PE/Cy5 Streptavidin | | FC, ICFC |
| | PE/Cy7 Streptavidin | | FC, ICFC |
| | Cell Staining Buffer | | FC, ICC, ICFC |
| | RBC Lysis Buffer (10X) | | FC, ICFC |
| | Biotin anti-human CD184 (CXCR4) | 4G10 | FC |
| | Human TruStain FcX™ (Fc Receptor Blocking Solution) | | FC, ICC, ICFC |



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