

Product Data Sheet

LEAF™ Purified anti-human CD4

Catalog # / Size: 300515 / 50 µg
300516 / 500 µg

Clone: RPA-T4

Isotype: Mouse IgG1, κ

Workshop Number: IV T114

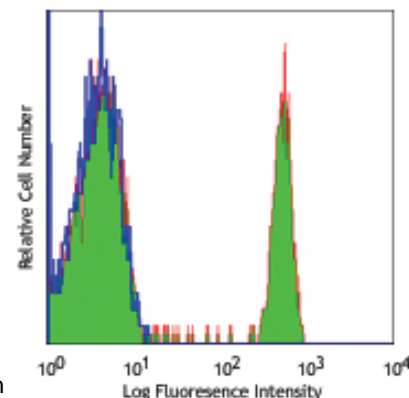
Reactivity: Human, **Cross-Reactivity:** Chimpanzee

Preparation: The LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.

Formulation: 0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.1 EU/µg of the protein (<0.01 ng/µg of the protein) as determined by the LAL test.

Concentration: 1.0 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C. This LEAF™ solution contains no preservative; handle under aseptic conditions.



Human peripheral blood lymphocytes stained with LEAF™ purified RPA-T4, followed by anti-mouse IgGs FITC

Applications:

Applications: FC - *Quality tested*
Block, IHC - *Reported in the literature*
CyTOF® - *Validated*

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 ≤2.0 µg per million cells in 100 µl volume or 100 µl of whole blood. 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:

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)

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:

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

Related Products:

Product	Clone	Application
LEAF™ Purified anti-human CD184 (CXCR4)	12G5	FC, Block, IF, IHC, CyTOF®
Purified anti-human CD25	BC96	FC
LEAF™ Purified anti-human CD3	HIT3a	FC, IP, Activ, IHC
Purified anti-human CD8a	HIT8a	FC, IHC
LEAF™ Purified anti-human CD8a	RPA-T8	Costim, FC, IHC, CyTOF®
LEAF™ Purified anti-human CD3	UCHT1	FC, Activ, IHC, IP, WB, CyTOF®
LEAF™ Purified Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC, WB, IP, ICC, IF, FA
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC
LEAF™ Purified anti-human CD184 (CXCR4)	4G10	Block, FC



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