

# **Monoclonal Antibody to CD4 - FITC**

Alternate names: T-cell surface antigen T4/Leu-3, T-cell surface glycoprotein CD4

Catalog No.: SM1058F

Quantity: 0.1 mg

Concentration: 0.1 mg/ml

Background: CD4 is a single chain transmembraneous glycoprotein (59 kDa) which belongs to the

immunoglobulin superfamily. CD4 is present on a subset of Tlymphocytes

("helper/inducer" T cells) and is also expressed at a lower level on monocytes, tissue macrophages and granulocytes. The antigen is involved in binding to MHC class II molecules. The intracellular domain of the antigen is associated with p56lck protein

tyrosine kinase.

Uniprot ID: P01730

NCBI: NP 000607.1

GenelD: <u>920</u>

Host / Isotype: Mouse / IgG1 Clone: RPA-T4

Immunogen: Human PHA blasts.

Spleen cells from immunised BALB/c mice were fused with cells of the mouse NSI myeloma

cell line.

Format: State: Liquid purified IgG fraction.

Purification: Affinity chromatography on Protein G.

Buffer System: PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as

stabilizer.

Label: FITC - Fluorescein Isothiocyanate Isomer 1

Applications: Flow Cytometry: Use 10 μl of neat-1/10 diluted antibody to label 10e6 cells or 100 μl of lysed

whole peripheral blood.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.

**Specificity:** This antibody recognises CD4.

Epitope mapping studies have shown that antibodies, produced by clone RPA-T4, recognise an epitope within domain 1, of the extracellular region, of the CD4 molecule. Clone RPA-T4 has been reported to block gp120-CD4 interaction and inhibit syncytium

formation. We recommend the use of SM1058LE for this purpose.

Species: Human.

Other species not tested.



## SM1058F: Monoclonal Antibody to CD4 - FITC

### **Storage:**

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.

This product is photosensitive and should be protected from light.

Shelf life: one year from despatch.

General References: 1. Zarkesh-Esfahani, H. et al. (2001) High-dose leptin activates human leukocytes via receptor expression on monocytes. J. Immunol.167:4593 - 4599.

> 2. Voehringer, D. et al. (2002) Lack of proliferative capacity of human effector and memory T cells expressing killer cell lectin-like receptor G1 (KLRG1). Blood.100: 3698 - 3702.

> 3. Piatier-Tonneau, D. (1997) CD4 workshop panel report. In Leucocyte Typing VI. White cell differentiation antigens. Edited by Kishimoto, T., Kikutani, H., von dem Borne, A.E.G.Kr., Goyert, A.M., Mason, D.Y., Miyasaka, M., Moretta, L., Okumura, K., Shaw, S., Springer, T.A., Sugamura, K., Zola, H. Garland publishing Inc. New York & London.

### **Pictures:**

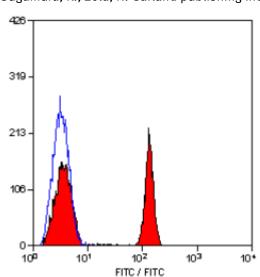


Figure 1. Staining of human peripheral blood lymphocytes with Mouse Anti Human CD4-FITC.