

Product datasheet for **CL004FX**

Cd4 Rat Monoclonal Antibody [Clone ID: CT-CD4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	CT-CD4
Applications:	FC
Recommended Dilution:	Flow Cytometry (see Protocols).
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Specificity:	This CT-CD4 monoclonal antibody (mAb) recognizes mouse CD4.
Formulation:	PBS, 0.1% NaN ₃ and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml. Label: FITC State: Liquid purified IgG
Concentration:	lot specific
Conjugation:	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.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD4 antigen
Database Link:	Entrez Gene 12504 Mouse P06332
Background:	CD4 (L3T4) which is expressed on the majority of thymocytes and on the MHC class II restricted subset of mature T cells including Th cells ^{1,2} . Mouse CD4 has also been reported to be present on multipotential hematopoietic stem cells, bone marrow myeloid precursors, and intrathymic precursors ^{2,3} . As a coreceptor in the TCR complex, CD4 is involved in T cell activation through interaction with MHC class II on APC's and in signal transduction via protein tyrosine kinase lck1.



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Synonyms: T-cell surface antigen T4/Leu-3

Note: Protocol: **FLOW CYTOMETRY ANALYSIS:**

1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population with Lympholyte®-M cell separation medium.
2. Wash 2 times.
3. Resuspend the cells to a concentration of 2×10^7 cells/ml in media A. Add 50 μ l of this suspension to each tube (each tube will then contain 1×10^6 cells, representing 1 test).
4. To each tube, add $\sim 1.0 \mu\text{g}^*$ of this Ab per 1×10^6 cells.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate the tubes for 30 minutes at 4°C. (It is recommended that the tubes be protected from light, since most fluorochromes are light sensitive.)
7. Wash 2 times at 4°C.
8. Resuspend the cell pellet in 50 μ l ice cold media B.
9. Transfer to suitable tubes for flow cytometric analysis containing 15 μ l of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.

MEDIA:

- A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100 μ l of 2M sodium azide in 100 mls).
- B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100 μ l of 2M sodium azide in 100 mls).

Tissue Distribution by Flow Cytometry Analysis:

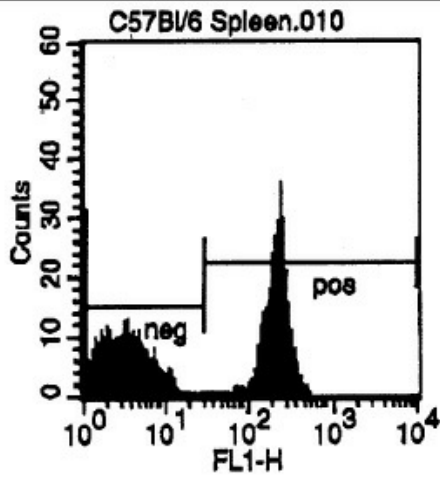
Mouse Strain: C57BL/6

Cell Concentration: 1×10^6 cells per test

Antibody Concentration Used: 1.0 $\mu\text{g}/10^6$ cells

Isotypic Control: FITC Rat IgG2a

Product images:



Cell Source: CD3e Positive Spleen Cells
 Percentage of cells stained above control: 52.4%