

Product datasheet for **CL004B**

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

Product data:

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| Product Type: | Primary Antibodies |
| Clone Name: | CT-CD4 |
| Applications: | FC |
| Recommended Dilution: | Flow Cytometry (See Protocols). (Reported to be useful in immunohistochemistry on Acetone Fixed Frozen Sections). |
| Reactivity: | Mouse |
| Host: | Rat |
| Isotype: | IgG2a |
| Clonality: | Monoclonal |
| Specificity: | This CT-CD4 monoclonal antibody (mAb) recognizes Mouse CD4 (L3T4). |
| Formulation: | PBS containing 0.09% Sodium Azide and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: Biotin State: Liquid purified IgG fraction |
| Concentration: | lot specific |
| Conjugation: | Biotin |
| 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 lck ¹ . |



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

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

Method

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 ~1.0-0.5 μ g of this Ab per 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.
7. Wash 2 times at 4°C.
8. Add 100 μ l of (Streptavidin-PE) at a 1:20 dilution.
9. Incubate tubes at 4°C for 30 - 60 minutes (It is recommended that tubes are protected from light since most fluorochromes are light sensitive).
10. Wash 2 times at 4°C.
11. Resuspend the cell pellet in 50 μ l ice cold media B.
12. 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:

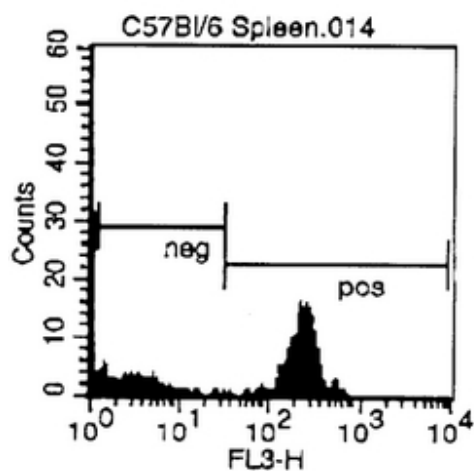
Mouse Strain: BALB/c

Cell Concentration: 1×10^6 cells per test

Antibody Concentration Used: 0.5 μ g/ 10^6 cells

Isotypic Control: Biotin Rat IgG2a

Product images:



Cell Source: Spleen Percentage of cells stained above control: 18.38%