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Product datasheet for CL004B

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). (Reported to be useful in immunohistochemistry on Acetone Fixed Frozen Sections).
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Specificity:	This CT-CD4 monolconal 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.
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 cells1,2. Mouse CD4 has also been reported to be present on multipotential hematopoietic stem cells, bone marrow myeloid precursors, and intrathymic precursors2,3. 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.
Synonyms:	T-cell surface antigen T4/Leu-3

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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 $2x10^7$ cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1 x 10^6 cells, representing 1 test).
4. To each tube, add ~1.0-0.5 µg 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 µl 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 µl ice cold media B.
12. Transfer to suitable tubes for flow cytometric analysis containing 15 µl of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.

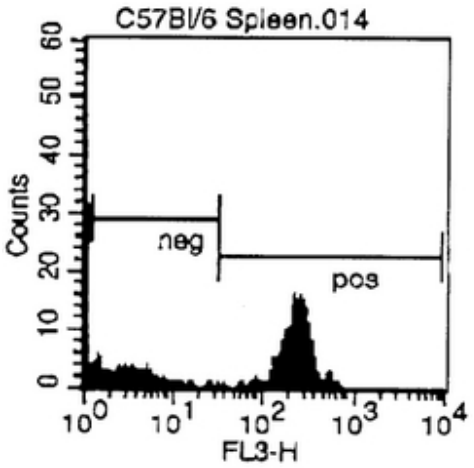
Media:

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

Tissue Distribution by Flow Cytometry Analysis:

Mouse Strain: BALB/c
Cell Concentration: $1x10^6$ cells per test
Antibody Concentration Used: 0.5 µg/10^6 cells
Isotypic Control: Biotin Rat IgG2a

Product images:



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