

Product datasheet for **CL006F**

Cd5 Mouse Monoclonal Antibody [Clone ID: CG16]

Product data:

Product Type:	Primary Antibodies
Clone Name:	CG16
Applications:	FC
Recommended Dilution:	Flow Cytometry Analysis (see Protocols).
Reactivity:	Mouse
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	C3H.CE - Ly 1.2 : DS from C3H spleen. Fusion Partner: Myeloma SP2/0 - Ag 14 (M5).
Specificity:	This Monoclonal antibody reacts with T cells from Mouse strains expressing the Ly 1.2 phenotype, but does not react with lymphocytes from mouse strains expressing the Ly 1.1 phenotype.
Formulation:	PBS containing 0.02% Sodium Azide as preservative and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: FITC State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	FITC
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD5 antigen
Database Link:	Entrez Gene 12507 Mouse P13379



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Background:

In humans, CD5 is a 55kDa T lymphocyte single chain transmembrane glycoprotein. It is present on all mature T lymphocytes, on most thymocytes and on many T cell leukemias and lymphomas. It reacts with a subpopulation of activated B cells. CD5/Lyt1 antigen is a monomeric type I transmembrane glycoprotein expressed on thymocytes, T lymphocytes, and a subset of B lymphocytes, but not on natural killer (NK) cells. It has been identified as the major ligand of the B cell antigen CD72. The frequency of CD5+ B cells exhibits strain dependent variation, and the phenotypic, anatomical, functional, developmental, and pathological characteristics of the CD5+ B cells suggest that they may represent a distinct lineage, known as B1 cells. Binding of CD5 on the T cell surface can augment alloantigen or mitogen induced lymphocyte proliferation and induces increased cytosolic free calcium, IL2 secretion, and IL2R expression. It has been proposed that CD5 negatively regulates signal transduction mediated by the T cell and B cell receptors.

Synonyms:

CD5, LEU1

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 2x10⁷ cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1 x 10⁶ cells, representing 1 test).
4. To each tube, add 0.1 - 0.2 µg* of this Ab per 10⁶ 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. Resuspend the cell pellet in 50 µl ice cold media B.
9. 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).

Results - Tissue Distribution

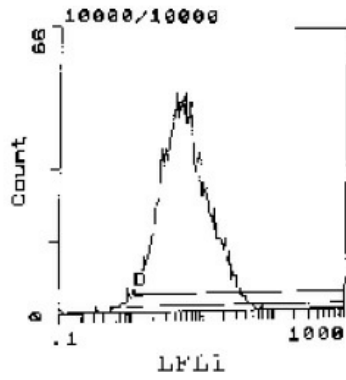
Mouse Strain: BALB/c
Cell Concentration: 1x10⁶ cells per tests
Antibody Concentration Used: 0.2 µg/10⁶ cells
Isotypic Control: FITC Mouse IgG2b

Results - Strain Distribution

Cell Concentration: 1x10⁶ cells per tests
Antibody Concentration Used: 0.2 µg/10⁶ cells
Strains Tested: AKR, ATH, BALB/c, CBA/J, C3H/He
Positive: AKR, ATH, BALB/c
Negative: CBA/J, C3H/He

Product images:

<u>Cell Source</u>	<u>Percentage of cells stained above control:</u>	
Thymus	98.9%	FLOW CYTOMETRY ANALYSIS
Spleen	33.5%	
Lymph Node	88.6%	
Bone Marrow	3.3%	



FLOW CYTOMETRY ANALYSIS - Tissue Distribution

Cell Source: Thymus
Percentage of cells stained above control: 98.9 %