

## Product datasheet for **CL006FX**

### 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.<br>Fusion Partner: Myeloma SP2/0 - Ag 14 (M5).   |
| Specificity:          | This mAb 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, 0.02% NaN <sub>3</sub> and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml<br>Label: FITC<br>State: Liquid purified IgG    |
| 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.<br>Avoid repeated freezing and thawing.  |
| Stability:            | Shelf life: one year from despatch.  |
| Gene Name:            | CD5 antigen  |
| Database Link:        | <a href="#">Entrez Gene 12507 Mouse P13379</a>   |



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**Background:**

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 2x10<sup>7</sup> cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1 x 10<sup>6</sup> cells, representing 1 test).
4. To each tube, add 0.1 - 0.2 µg\* of this Ab per 10<sup>6</sup> 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**

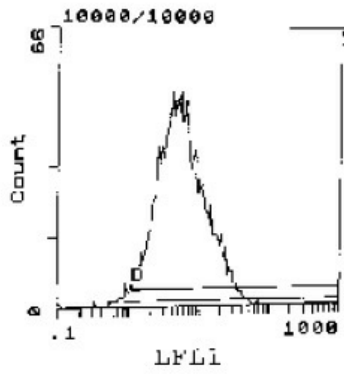
Mouse Strain: BALB/c  
Cell Concentration: 1x10<sup>6</sup> cells per tests  
Antibody Concentration Used: 0.2 µg/10<sup>6</sup> cells  
Isotypic Control: FITC Mouse IgG2b

**Results - Strain Distribution**

Cell Concentration: 1x10<sup>6</sup> cells per tests  
Antibody Concentration Used: 0.2 µg/10<sup>6</sup> 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 %