

Monoclonal Antibody to CD5 - PE

Alternate names:	CD5, LEU1, Lymphocyte antigen T1/Leu-1, T-cell surface glycoprotein CD5
Catalog No.:	CL006R
Quantity:	50 µg
Concentration:	0.1 mg/ml
Background:	<p>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.</p>
Uniprot ID:	P13379
NCBI:	NP_031676.3
GeneID:	12507
Host / Isotype:	Mouse / IgG2b
Clone:	CG16
Immunogen:	<p>C3H.CE - Ly 1.2 : DS. Donor: C3H spleen. Fusion Partner: Myeloma SP2/0 - Ag 14 (M5).</p>
Format:	<p>State: Liquid Purification: Protein G Chromatography Buffer System: PBS, 0.02% NaN₃ and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: PE</p>
Applications:	<p>Flow Cytometry Analysis (see Protocols). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

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.

Species: Mouse.
Other species not tested.

Storage: Store the antibody undiluted at 2-8°C.
DO NOT FREEZE!
This Antibody is photosensitive and should be protected from light.
Shelf life: one year from despatch

Protocols: 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 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. (It is recommended that the tubes are 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).

Results - Tissue Distribution

Mouse Strain: BALB/c
Cell Concentration: 1×10^6 cells per tests
Antibody Concentration Used: 0.5 μ g/ 10^6 cells
Isotypic Control: PE Mouse IgG2b

Results - Strain Distribution

Cell Concentration: 1×10^6 cells per tests
Antibody Concentration Used: 0.5 μ g/ 10^6 cells
Strains Tested: AKR, ATH, BALB/c, CBA/J, C3H/He
Positive: AKR, ATH, BALB/c
Negative: CBA/J, C3H/He

Pictures:

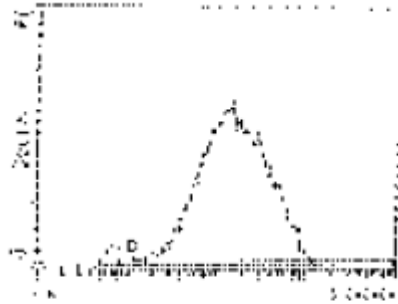
<u>Cell Source</u>	<u>Percentage of cells stained above control:</u>
Thymus	98.8%
Spleen	18.7%
Lymph Node	65.4%
Bone Marrow	11.3%

FLOW CYTOMETRY ANALYSIS

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LFL2

Cell Source: Thymus

Percentage of cells stained above control: 98.8 %

FLOW CYTOMETRY ANALYSIS - Tissue Distribution

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