

## Monoclonal Antibody to CD5 - PE

<b>Alternate names:</b>	CD5, LEU1, Lymphocyte antigen T1/Leu-1, T-cell surface glycoprotein CD5
<b>Catalog No.:</b>	AM08024RP-N
<b>Quantity:</b>	0.2 mg
<b>Concentration:</b>	0.1 mg/ml
<b>Background:</b>	CD5/Lyt-1 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. (Ref.1-3) It has been identified as the major ligand of the B-cell antigen CD72. (Ref.4,5) 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 B-1 cells (reviewed in Ref.6). Binding of CD5 on the T cell surface can augment alloantigen- or mitogen-induced lymphocyte proliferation and induces increased cytosolic free calcium, IL-2 secretion, and IL-2R expression. (Ref.7-12) It has been proposed that CD5 negatively regulates signal transduction mediated by the T-cell and B-cell receptors. (Ref.13,14)
<b>Uniprot ID:</b>	<a href="#">P13379</a>
<b>NCBI:</b>	<a href="#">NP_031676.3</a>
<b>GeneID:</b>	<a href="#">12507</a>
<b>Host / Isotype:</b>	Rat / IgG2a
<b>Clone:</b>	4H8E6
<b>Format:</b>	<b>State:</b> Liquid purified Ig fraction. <b>Buffer System:</b> PBS containing 0.09% Sodium Azide as preservative and a stabilizing agent. <b>Label:</b> PE – R-Phycoerythrin
<b>Applications:</b>	<b>Flow Cytometry:</b> Identification and enumeration of CD5+ cells ( $\leq$ / = 0.2 $\mu$ g/10e6 cells). (Ref.15) <b>Immunoprecipitation.</b> (Ref.15) <b>Immunohistochemistry on Frozen Sections.</b> (Ref.15) <b>T Cell Activation.</b> (Ref.15) <b>Western blotting.</b> (Ref.15) Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This antibody is specific to CD5/Lyt-1 (Mr. 67 kDa) <b>Species:</b> Mouse. Other species not tested.

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

Material Safety Datasheets are available at [www.acris-antibodies.com](http://www.acris-antibodies.com) or on request.

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



**Storage:**

Store the antibody undiluted at 2-8°C.

**DO NOT FREEZE!**

This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

**General Readings:**

1. Ledbetter, J. A. and L. A. Herzenberg. 1979. Immunol. Rev. 47:63.
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4. Van de Veld, H., I. von Hoegen, W. Luo, J. R. Parnes, and K. Thielemans. 1991. Nature 351:662.
5. Luo, W., H. Van de Velde, I. von Hoegen, J. R. Parnes, and K. Thielemans. 1992. J. Immunol. 148:1630.
6. Kantor, A. B. and L. A. Herzenberg. 1993. Ann. Rev. Immunol. 11:501.
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10. Logdberg, L. and E. M. Shevach. 1996. Eur. J. Immunol. 15:1007.
11. June, C. H., P. R. Rabinovitch, and J. A. Ledbetter. 1987. J. Immunol. 138:2782.
12. Hollander, N., E. Pillemer, and I. L. Weissman. 1981. Proc. Natl. Acad. Sci. U. S. A. 78:1148.
13. Tarakhovsky, A., S.B. Kanner, J. Hombach, J.A. ledbetter, W. Muller, N. Killeen, and K. Rajewsky. 1995. Science 269:535.
14. Bikah, G., J. Carey, J.R. Cialella, A. Tarakhovsky, and S. Bobdada. 1996. Science 274:1906.
15. Parkhouse, R.M.E. 1996. Personal communication.

**Pictures:**

**Immunofluorescent Staining:** Cells from BALB/c spleen were double-stained with Rat anti-Mouse CD5-R-PE and rat anti-mouse CD19-FITC (Clone 6D5), following which small lymphocytes were gated and analyzed using a FACScan(TM) flow cytometer (BDIS, San Jose, CA). Amount used: < / = 0.2 µg/10e6 cells.

