

## Monoclonal Antibody to CD45 / LCA (CD45RA) - PE

<b>Alternate names:</b>	L-CA, Leukocyte common antigen, PTPRC, Receptor-type tyrosine-protein phosphatase C, T200
<b>Catalog No.:</b>	SM1115R
<b>Quantity:</b>	100 Tests
<b>Background:</b>	CD45RA is a high molecular weight isoform of a receptor-type protein tyrosine phosphatase, CD45 glycoprotein. CD45 is crucial in lymphocyte development and antigen signaling, serving as an important regulator of Src-family kinases, promotes cell survival by modulating integrin-mediated signal transduction pathway and is also involved in DNA fragmentation during apoptosis. CD45 isoforms differ in their extracellular domains, whereas they share identical transmembrane and cytoplasmic domains. These isoforms differ in their ability to translocate into the glycosphingolipid-enriched membrane domains and their expression depends on cell type and physiological state of the cell. CD45RA is expressed e.g. on nave T cells and normal plasma cells.
<b>Uniprot ID:</b>	<a href="#">P08575</a>
<b>NCBI:</b>	<a href="#">NP_002829.2</a>
<b>GeneID:</b>	<a href="#">5788</a>
<b>Host / Isotype:</b>	Mouse / IgG2b
<b>Clone:</b>	MEM-56
<b>Immunogen:</b>	Human Thymocytes and T Lymphocytes.
<b>Format:</b>	<b>State:</b> Liquid purified Ig fraction <b>Buffer System:</b> PBS containing 15 mM Sodium Azide as preservative and 0.2% (w/v) high-grade protease free BSA as a stabilizing agent. <b>Label:</b> PE – Conjugated with R-Phycoerythrin under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use
<b>Applications:</b>	<b>Flow Cytometry</b> analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10e6 cells in a suspension. The content of vial (2 ml) is sufficient for 100 Tests. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	The antibody reacts with CD45RA, a 205-220 kDa single chain type I glycoprotein, variant of CD45 (CD45RA isoform). CD45RA is expressed on most of B lymphocytes, resting and native T lymphocytes, medullar thymocytes and monocytes. <b>Species:</b> Human. 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 at 2-8°C.

**DO NOT FREEZE!**

This product is photosensitive and should be protected from light.

Shelf life: one year from despatch.

**General References:**

Li FJ, Tsuyama N, Ishikawa H, Obata M, Abroun S, Liu S, Otsuyama K, Zheng X, Ma Z, Maki Y, Kawano MM: A rapid translocation of CD45RO but not CD45RA to lipid rafts in IL-6-induced proliferation in myeloma. *Blood*. 2005 Apr 15;105(8):3295-302.

Cosenza-Nashat MA, Kim MO, Zhao ML, Suh HS, Lee SC: CD45 isoform expression in microglia and inflammatory cells in HIV-1 encephalitis. *Brain Pathol*. 2006 Oct;16(4):256-65.

Dawes R, Petrova S, Liu Z, Wraith D, Beverley PC, Tchilian EZ. Combinations of CD45 isoforms are crucial for immune function and disease. *J Immunol*. 2006 Mar 15;176(6):3417-25.

Bijian K, Zhang L, Shen SH: Collagen-mediated survival signaling is modulated by CD45 in Jurkat T cells. *Mol Immunol*. 2007 Jul;44(15):3682-90.

Desharnais P, Dupere-Minier G, Hamelin C, Devine P, Bernier J: Involvement of CD45 in DNA fragmentation in apoptosis induced by mitochondrial perturbing agents. *Apoptosis*. 2007 Dec 19.

Bazil V, Stefanova I, Hilgert I, Kristofova H, Vanek S, Bukovsky A, Horejsi V.: Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102. *Folia Biol (Praha)*. 1989;35(5):289-97.

Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).

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