

## Monoclonal Antibody to CD45 / LCA (CD45R) - PE

<b>Alternate names:</b>	L-CA, Leukocyte common antigen, PTPRC, Receptor-type tyrosine-protein phosphatase C, T200
<b>Catalog No.:</b>	SM034RT
<b>Quantity:</b>	25 Tests
<b>Background:</b>	<p>CD45R is a member of the protein tyrosine phosphatase (PTP) family and a major cell surface glycoprotein. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. CD45R represents a restricted form of the CD45 family which primarily recognizes only cells of B lineage from proB cell through mature B lymphocytes and, prior to the availability of anti CD19 MAbs, was commonly used as a pan B cell marker. It also reacts with certain activated T cells, as well as non MHC restricted lytically active lymphokine activated killer (LAK) cells. CD45R contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains. It is specifically expressed in hematopoietic cells and has been shown to be an essential regulator of T and B cell antigen receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. CD45R also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Four alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported.</p>
<b>Uniprot ID:</b>	<a href="#">P06800</a>
<b>NCBI:</b>	<a href="#">10090</a>
<b>Host / Isotype:</b>	Rat / IgG2a
<b>Clone:</b>	RA3-6B2
<b>Immunogen:</b>	Mouse pre-B tumour cells (RAW112).
<b>Format:</b>	<p><b>State:</b> Lyophilized purified IgG fraction. <b>Purification:</b> Affinity Chromatography on Protein G. <b>Buffer System:</b> Contains 0.09% Sodium Azide as preservative and 1% BSA as stabilizer. <b>Label:</b> PE – R. Phycoerythrin (RPE) <b>Reconstitution:</b> Restore with 1.0 ml distilled water.</p>
<b>Applications:</b>	<p><b>Flow Cytometry:</b> Use 10 µl of neat antibody to label 10e6 cells in 100 µl. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. 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](http://www.acris-antibodies.com) or on request.

Antibody Hotline - Technical Questions - Antibody Location Service  
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**Specificity:**

This antibody reacts with mouse CD45R a form of the CD45 antigen expressed by B cells and lytically active subsets of NK cells and non-MHC restricted CTLs.  
Clone RA3-6B2 immunoprecipitates the high molecular weight form of CD45 (220kD).

**Species:** Mouse.

Reacts with Cat and Human.

Other species not tested.

**Storage:**

Store the antibody undiluted 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:**

1. Spangrude, G.J. et al. (1988) Purification and characterization of mouse hematopoietic stem cells. *Science*. 241:58-62.
2. Coffman, R. (1982) Surface antigen expression and immunoglobulin gene rearrangement during mouse pre-B cell development. *Immunol. Rev.* 69: 5-23.
3. Rosmalen, J.G.M. et al. (2000) Subsets of macrophages and dendritic cells in nonobese diabetic mouse pancreatic inflammatory infiltrates: correlation with the development of diabetes - *Lab. Invest.* 80:23-30.
4. Spangrude, G.J. et al. (1988) Two rare populations of mouse Thy-1lo bone marrow cells repopulate the thymus. *J. Exp. Med.* 167(5):1671-1683.
5. Holmes, K.L. et al. (1986) Analysis of neoplasms induced by Cas-Br-M MuLV tumor extracts. *J. Immunol.* 137 (2):679-688.
6. Whiteland, J.L. et al. (1995). Immunohistochemical detection of T-Cell subsets and other leucocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. *J. Histochem. Cytochem.* 43: 313-320.
7. Monteith. C.E. et al. (1996) Identification of monoclonal antibodies for immunohistochemical staining of feline B lymphocytes in frozen and formalin fixed paraffin embedded tissues. *Can. J. Vet. Res.* 60: 193-198.

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