

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

<b>Alternate names:</b>	L-CA, Leukocyte common antigen, PTPRC, Receptor-type tyrosine-protein phosphatase C, T200
<b>Catalog No.:</b>	SM279PX
<b>Quantity:</b>	1 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Background:</b>	CD45 is a family of single chain transmembrane glycoproteins consisting of at least four isoforms (220, 205, 190, 180 kDa) which share a common large intracellular domain. Their extracellular domains are heavily glycosylated. The different isoforms are produced by alternative messenger RNA splicing of three exons of a single gene on chromosome 1. CD45 is expressed on cells of the human hematopoietic lineage (including hematopoietic stem cells) with the exception of mature red cells. It is not detected on differentiated cells of other tissues. It is likely that CD45 plays an important role in signal transduction, inhibition or upregulation of various immunological functions. Antibodies recognising a common epitope on all of the isoforms are termed CD45 whilst those recognising only individual isoforms are termed CD45RA or CD45RO etc.
<b>Uniprot ID:</b>	<a href="#">P04157</a>
<b>NCBI:</b>	<a href="#">NP_001103357.1</a>
<b>GeneID:</b>	<a href="#">24699</a>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Clone:</b>	OX-33
<b>Immunogen:</b>	Purified spleen leucocyte common antigen. Spleen cells from immunised BALB/c mice were fused with cells of the NSO/U myeloma cell line.
<b>Format:</b>	<b>State:</b> Liquid purified IgG <b>Purification:</b> Affinity chromatography on Protein G <b>Buffer System:</b> PBS, pH7.2 containing 0.09% Sodium Azide
<b>Applications:</b>	Flow Cytometry: 1/50 - 1/100; Use 10µl of the suggested working dilution to label 10e6 cells in 100µl. Immunohistochemistry on frozen and paraffin sections: This clone has been described reacting with paraffin-embedded material following PLP fixation (periodatylsine-paraformaldehyde) - refer to ref. Whiteland, J.L. et al. (1995) - reference 4. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

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- Specificity:** This antibody is directed against a high molecular weight band of the leucocyte common antigen (LCA). MRC OX-33 only labels B-cells among thoracic duct lymphocytes with little labelling in bone marrow and none on thymocytes.  
**Species:** Rat.  
Other species not tested.
- Storage:** Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.
- General References:**
1. Woollett, G. R. et al. (1985) Molecular and antigenic heterogeneity of the rat leukocyte-common antigen from thymocytes and T and B lymphocytes. *Eur. J. Immunol.* 15:168-173.
  2. Barclay, A.N. et al. (1987) Lymphocyte specific heterogeneity in the rat leucocyte common antigen (T200) is due to differences in polypeptide sequences near the NH2-terminus. *EMBO J.* 6:1259-1264.
  3. Barclay, A.N. et al. (1981) The localization of populations of lymphocytes defined by monoclonal antibodies in rat lymphoid tissues. *Immunology.* 42:593-600.
  4. 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.

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