

Monoclonal Antibody to CD45 / LCA (CD45RC) - Low Endotoxin

Alternate names:	L-CA, Leukocyte common antigen, PTPRC, Receptor-type tyrosine-protein phosphatase C, T200
Catalog No.:	SM280P
Quantity:	0.5 mg
Concentration:	1.0 mg/ml
Background:	The CD45 family of cell surface glycoprotein antigens exist as a set of isoforms. The patterns of monoclonal antibody recognition of the CD45 phenotypes can be restricted (CD45RA, RB and RC), or broader, such as the CD45 T 200 species. The "restricted" subsets of this group arise as a result of translation of alternatively spliced mRNAs from exons A, B and C (exons 4, 5 and 6), where exons 3-15 encode the extracellular domain of the CD45 molecule. The restricted epitopes are differentially expressed on T and B lymphocytes, including functionally distinct T cells. CD45 (LCA) is a transmembrane phosphotyrosine phosphatase expressed on leucocytes. Myeloid cells do not express the RC isoform.
Uniprot ID:	P04157
NCBI:	NP_001103357
GeneID:	24699
Host / Isotype:	Mouse / IgG1
Clone:	OX-22
Immunogen:	PHA stimulated rat lymphocytes. Spleen cells from immunised BALB/c mice were fused with cells from the NS1 mouse myeloma cell line.
Format:	State: Liquid purified IgG fraction. Purification: Affinity Chromatography on Protein G. Buffer System: Phosphate Buffered Saline, pH 7.4 without preservatives.
Applications:	Flow Cytometry: Use 10 µl of 1/100 diluted antibody to label 10e6 cells in 100 µl. Immunohistochemistry on Frozen Sections: Immunohistochemistry on Paraffin Sections: This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

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

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- Specificity:** This antibody recognises CD45RC, the high molecular weight form of the leucocyte common antigen.
The antigen is found on B cells, approximately 50% of bone marrow cells, all CD8+ve T cells, but splits CD4+ve T cells into two populations, CD4+CD45RChigh (Th1-like) and CD4+CD45RClow (Th2-like).
Species: Rat.
Other species not tested.
- Storage:** Store the antibody undiluted at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.
- General References:** 1. Spickett, G.P. et al. (1983) MRC OX-22, a monoclonal antibody that labels a new subset of T lymphocytes and reacts with the high molecular weight form of the leukocyte-common antigen. *J. Exp. Med.* 158:795-810.
2. Arthur, R.P. and Mason, D.W. (1986) T cells that help B cell responses to soluble antigen are distinguishable from those producing interleukin 2 on mitogenic or allogeneic stimulation. *J. Exp. Med.* 163:774-786.
3. Pelegri, C et al. (2001) Prevention of adjuvant arthritis by the W3/25 anti-CD4 monoclonal antibody is associated with a decrease of blood CD4+CD45RChigh T cells. *Clin. Exp. Immunol.* 125:470-477.

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