

**SM2055B****Monoclonal Antibody to CD45 - Biotin**

<b>Alternate names:</b>	CD45R, CD45RA, CD45RB, CD45RO, L-CA, Leukocyte common antigen, PTPRC, T200
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	0.1 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>Host / Isotype:</b>	Mouse / IgG1
<b>Clone:</b>	1.11.32
<b>Immunogen:</b>	Ovine efferent lymphatic duct lymphocytes. Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction <b>Purification:</b> Affinity Chromatography on Protein G <b>Buffer System:</b> PBS, pH 7.4 containing 0.09% Sodium Azide and 1% BSA <b>Label:</b> Biotin
<b>Applications:</b>	<b>Flow Cytometry:</b> Use 10 $\mu$ l of neat-1/10 diluted antibody to label 10 <sup>6</sup> cells in 100 $\mu$ l. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This antibody recognises the CD45 (Leucocyte common antigen), which is expressed on all ovine lymphocytes, macrophages and granulocytes. It immunoprecipitates CD45 molecules of 190kD, 210kD and 225kD from lymph node lysates. <b>Species:</b> Sheep. Other species not tested.
<b>Storage:</b>	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.
<b>General Readings:</b>	1. Maddox JF, Mackay CR, Brandon MR. The sheep analogue of leucocyte common antigen (LCA). <i>Immunology</i> . 1985 Jun;55(2):347-53. PubMed PMID: 3159652. 2. Mackay CR, Maddox JF, Brandon MR. A monoclonal antibody to the p220 component of sheep LCA identifies B cells and a unique lymphocyte subset. <i>Cell Immunol</i> . 1987 Nov;110(1):46-55. PubMed PMID: 2445494.

3. Mackay CR, Beya MF, Matzinger P. Gamma/delta T cells express a unique surface molecule appearing late during thymic development. *Eur J Immunol.* 1989 Aug;19(8):1477-83. PubMed PMID: 2528463.
4. Sainte Marie, G. et al. (1962) A paraffin embedding technique for studies employing immunofluorescence. *J. Histochem. Cytochem.* 10: 250