

## Monoclonal Antibody to CD45 - Purified

<b>Alternate names:</b>	CD45R, CD45RA, CD45RB, CD45RO, L-CA, Leukocyte common antigen, PTPRC, T200
<b>Catalog No.:</b>	SM2055P
<b>Quantity:</b>	0.25 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Background:</b>	CD45 is a family of single chain transmembraneous 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>Recommended Isotype Controls:</b>	AM03095PU-N
<b>Clone:</b>	1.11.32
<b>Immunogen:</b>	Ovine efferent lymphatic duct lymphocytes. <b>Remarks:</b> 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 as preservative.
<b>Applications:</b>	<b>Immunoprecipitation.</b> <b>Immunohistochemistry on Frozen Sections.</b> <b>Immunohistochemistry on Paraffin Sections.</b> <b>Flow Cytometry:</b> Use 10 µl of 1/50-1/100 diluted antibody to label 10e6 cells in 100 µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

- Specificity:** This antibody recognizes the CD45 (Leucocyte common antigen) which expressed on all ovine lymphocytes, macrophages and granulocytes. It immunoprecipitates CD45 molecules of 190kD, 210kD and 225kD from lymph node lysates.  
This clone has been reported to react with Paraffin-embedded material following Paraformaldehyde or Alcohol Fixation (See Ref.4 for Alcohol Fixation Protocol).  
**Species:** Sheep. Cross-reacts with Bovine and Goat.  
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 Readings:**
1. Maddox JF, Mackay CR, Brandon MR. The sheep analogue of leucocyte common antigen (LCA). *Immunology*. 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. *Cell Immunol*. 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.
  5. Breugelmans S, Van den Broeck W, Demeyere K, Meyer E, Simoens P. Immunoassay of lymphocyte subsets in ovine palatine tonsils. *Acta Histochem.* 2011 Jul;113(4):416-22. doi: 10.1016/j.acthis.2010.03.001. Epub 2010 May 23. PubMed PMID: 20546866.