

SM2030R**Monoclonal Antibody to CD45 (CD45R) - PE****Alternate names:**

CD45R, L-CA, Leukocyte common antigen, PTPRC, T200

Quantity:

100 Tests

Background:

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.

Host / Isotype:

Mouse / IgG1

Clone:

20.96

Immunogen:

Ovine thymocytes. Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.

Format:**State:** Lyophilized purified IgG fraction from tissue culture supernatant**Purification:** Affinity Chromatography on Protein G**Buffer System:** PBS, pH 7.4**Preservatives:** 0.09% Sodium Azide**Stabilizers:** 1% BSA, 5% Sucrose**Label:** PE – R. Phycoerythrin (RPE)**Applications:****Flow Cytometry:** Use 10 µl of neat antibody to label 1×10^6 cells in 100 µl.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody recognises the CD45R cell surface antigen.

Storage:

Prior to and following reconstitution store the antibody at 2-8°C.

DO NOT FREEZE!

This product is photosensitive and should be protected from light.

Shelf life: one year from despatch.

General Readings:

1. 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.
2. Lacroux, C. et al. (2011) Prionemia and leuco-platelet associated infectivity in sheep TSE models. *J Virol.* Dec 7. [Epub ahead of print]
3. Dutia BM, Ross AJ, Hopkins J. Analysis of the monoclonal antibodies comprising WC6. *Vet Immunol Immunopathol.* 1993 Nov;39(1-3):193-9. PubMed PMID: 8310645.
4. Lee CS, Gogolin-Ewens K, Brandon MR. Identification of a unique lymphocyte subpopulation in the sheep uterus. *Immunology.* 1988 Jan;63(1):157-64. PubMed

PMID: 2962930.

5. Debes GF, Arnold CN, Young AJ, Krautwald S, Lipp M, Hay JB, et al. Chemokine receptor CCR7 required for T lymphocyte exit from peripheral tissues. *Nat Immunol.* 2005 Sep;6(9):889-94. Epub 2005 Aug 14. PubMed PMID: 16116468.

6. Sedgmen BJ, Lofthouse SA, Scheerlinck JP, Meeusen EN. Cellular and molecular characterisation of the ovine rectal mucosal environment. *Vet Immunol Immunopathol.* 2002 Jul;86(3-4):215-20. PubMed PMID: 12007887.

7. Olivier M, Foret B, Le Vern Y, Guilloteau LA. Capacities of migrating CD1b+ lymph dendritic cells to present Salmonella antigens to naive T cells. *PLoS One.* 2012;7(1):e30430. doi: 10.1371/journal.pone.0030430. Epub 2012 Jan 18. PubMed PMID: 22279590.

8. Boppana DK, Wikel SK, Raj DG, Manohar MB, Lalitha J. Cellular infiltration at skin lesions and draining lymph nodes of sheep infested with adult *Hyalomma anatolicum anatolicum* ticks. *Parasitology.* 2005 Nov;131(Pt 5):657-67. PubMed PMID: 16255824.

9. Leemans I, Fossum C, Johannisson A, Hooshmand-Rad P. Comparative studies on surface phenotypes of *Theileria lestoquardi* and *T. annulata* schizont-infected cells. *Parasitol Res.* 2001 Sep;87(9):768-77. PubMed PMID: 11570564.

10. Tanaka Y, Nakamura S, Shibata H, Kishi Y, Ikeda T, Masuda S, et al. Sustained macroscopic engraftment of cynomolgus embryonic stem cells in xenogeneic large animals after in utero transplantation. *Stem Cells Dev.* 2008 Apr;17(2):367-81. doi: 10.1089/scd.2007.0119. PubMed PMID: 18447651.