

## Monoclonal Antibody to MHC Class I (monomorphic) - PE

<b>Alternate names:</b>	HLA Class 1, MHC Class 1, Major Histocompatibility complex class I
<b>Catalog No.:</b>	SM504R
<b>Quantity:</b>	100 Tests
<b>Background:</b>	MHC Class I molecules play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum lumen. MHC class I antigens are heterodimers consisting of one alpha chain (44kDa) with beta 2 microglobulin (11.5 kDa). The antigen is expressed by all somatic cells at varying levels. MHC Class I molecules are expressed on most nucleated cells where they present endogenously synthesized antigenic peptides to CD8+ T lymphocytes, which are usually cytotoxic T cells. Fibroblasts or neurons however only show a low level of antigen.
<b>Host / Isotype:</b>	Mouse / IgG2a
<b>Recommended Isotype Controls:</b>	AM03096PU-N
<b>Clone:</b>	CVS22
<b>Immunogen:</b>	Equine leucocytes <b>Remarks:</b> Spleen cells from immunised mice were fused with cells of the X63.Ag 8.653 mouse myeloma cell line.
<b>Format:</b>	<b>State:</b> Lyophilised purified IgG <b>Purification:</b> Affinity chromatography on Protein A <b>Buffer System:</b> PBS containing 0.09% Sodium azide, 1% BSA and 5% Sucrose <b>Label:</b> PE – R. Phycoerythrin <b>Reconstitution:</b> Restore with 1.0 ml distilled water
<b>Applications:</b>	<b>Flow cytometry:</b> Neat, use 10µl to label 10e6 cells in 100µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	All tissues <b>Species:</b> Equine (Horse). Other species not tested.
<b>Storage:</b>	Prior to and following reconstitution store the antibody at 2-8°C. <b>DO NOT FREEZE!</b> This product is photosensitive and should be protected from light. Shelf life: one year from despatch.
<b>Product Citations:</b>	<b>Originator or purchased from resellers:</b> 1. Carrade DD, Lame MW, Kent MS, Clark KC, Walker NJ, Borjesson DL. Comparative Analysis of the Immunomodulatory Properties of Equine Adult-Derived Mesenchymal Stem Cells(). Cell Med. 2012;4(1):1-11. Epub 2012 Jan 1. PubMed PMID: 23152950.

- General Readings:**
1. O'Brien (1993) Ph D Thesis, University of Cambridge.
  2. Kydd, J.H. and Antczak, D.F. (1991) First International Workshop on Equine Leucocyte Antigens 12th-13th July. Preliminary Report. Equine Immunol. 4 - 5.
  3. Lunn DP, Holmes MA, Antczak DF, Agerwal N, Baker J, Bendali-Ahcene S, et al. Report of the Second Equine Leucocyte Antigen Workshop, Squaw valley, California, July 1995. Vet Immunol Immunopathol. 1998 Mar 31;62(2):101-43. PubMed PMID: 9638857.
  4. Mérand C, Breathnach CC, Kohler K, Rashid C, Van Meter P, Horohov DW. Young foal and adult horse monocyte-derived dendritic cells differ by their degree of phenotypic maturity. Vet Immunol Immunopathol. 2009 Sep 15;131(1-2):1-8. doi: 10.1016/j.vetimm.2009.03.002. Epub 2009 Mar 14. PubMed PMID: 19349079.

**Pictures:** Staining of equine peripheral blood lymphocytes with MHC Class I antibody  
Cat.-No. SM504R.

