Datasheet: MCA1085PE

BATCH NUMBER INN0515

Description:	MOUSE ANTI HORSE MHC CLASS II MONOMORPHIC:RPE
Specificity:	MHC CLASS II MONOMORPHIC
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	CVS20
Isotype:	IgG1
Quantity:	100 TESTS

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species

Horse

Species Cross Reactivity

Reacts with: Human, Bovine, Dog

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1.0 ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3) 1% Bovine Serum Albumin 5% Sucrose
Immunogen	3132 cells.
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the X.63-Ag8.653 mouse myeloma cell line
Specificity	**Mouse anti Horse MHC Class II Monomorphic antibody, clone CVS20** recognizes monomorphic equine MHC Class II and was classified at the International Equine Leucocyte Antigen Workshop. Clone CVS20 reacts with all equine B cells and 95% of equine T cells. The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In horses, this is referred to as the equine leukocyte antigen (ELA) region.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Kydd, J.H. & Antczak. D.F. (1991) Report of the First International Workshop on Equine Leucocyte Antigens, Cambridge, UK, July 1991 Equine Immunol. 4: 5. 2. Lunn, D.P. *et al.* (1998) Report of the Second Equine Leucocyte Antigen Workshop, Squaw valley, California, July 1995. Vet Immunol Immunopathol. 62 (2): 101-43. 3. Weiss, D.J. *et al.* (2001) Regulation of expression of major histocompatibility antigens by bovine macrophages infected with *Mycobacterium avium* subsp. *paratuberculosis* or *Mycobacterium avium* subsp. *avium*. Infect Immun. 69 (2): 1002-8. 4. Out, T.A. *et al.* (2002) Local T-cell activation after segmental allergen challenge in the lungs of allergic dogs. Immunology. 105 (4): 499-508. 5. Carrade, D.D. *et al.* (2011) Clinicopathologic findings following intra-articular injection of autologous and allogeneic placentally derived equine mesenchymal stem cells in horses. Cytotherapy. 13: 419-30. 6. Catchpole, B. *et al.* (2002) Generation of blood-derived dendritic cells in dogs with oral malignant melanoma. J Comp Pathol. 126: 238-41. 7. Weiss, D.J. *et al.* (2006) Mucosal immune response in cattle with subclinical Johne's disease. Vet Pathol. 43: 127-35. 8. Weiss, D.J. (2001) Evaluation of proliferative disorders in canine bone marrow by use of flow cytometric scatter plots and monoclonal antibodies. Vet Pathol. 38: 512-8. 9. Sassa, Y. *et al.* (2010) Bovine macrophage degradation of scrapie and BSE PrPSc Vet Immunol Immunopathol. 133: 33-9. 10. Carrade, D.D. *et al.* (2012) Comparative Analysis of the Immunomodulatory Properties of Equine Adult-Derived Mesenchymal Stem Cells(). Cell Med. 4 (1): 1-11. 11. Hussein, H. *et al.* (2016) Cathepsin K inhibition renders equine bone marrow nucleated cells hypo-responsive to LPS and unmethylated CpG stimulation *in vitro*. Comp Immunol Microbiol Infect Dis. 45: 40-7. 12. Maia, L. *et al.* (2016) Conditioned medium: A new alternative for cryopreservation of

equine umbilical cord mesenchymal stem cells. Cell Biol Int. Nov 26 [Epub ahead of print]
13. de Moraes, C.N. *et al.* (2016) Bovine endometrial cells: a source of mesenchymal stem/progenitor cells. Cell Biol Int. 40 (12): 1332-1339.
14. Maumus, M. *et al.* (2016) Utility of a Mouse Model of Osteoarthritis to Demonstrate Cartilage Protection by IFNγ-Primed Equine Mesenchymal Stem Cells. Front Immunol. 7: 392.
15. Ziegler, A. *et al.* (2016) Identification and characterization of equine blood plasmacytoid dendritic cells. Dev Comp Immunol. 65: 352-7.
16. Abdelhamid, L. *et al.* (2017) Retinoic acid-mediated anti-inflammatory responses in equine immune cells stimulated by LPS and allogeneic mesenchymal stem cells. Res Vet Sci. 114: 225-32.
17. Maia, L. *et al.* (2017) A proteomic study of mesenchymal stem cells from equine umbilical cord. Theriogenology. 100: 8-15.
18. Hussein, H. *et al.* (2016) Cathepsin K inhibition renders equine bone marrow nucleated cells hypo-responsive to LPS and unmethylated CpG stimulation *in vitro*. Comp Immunol Microbiol Infect Dis. 45: 40-7.
19. Dos Santos, V.H. *et al.* (2019) Evaluation of alginate hydrogel encapsulated mesenchymal stem cell migration in horses. Res Vet Sci. 124: 38-45.
20. Barberini, D.J. *et al.* (2018) Safety and tracking of intrathecal allogeneic mesenchymal stem cell transplantation in healthy and diseased horses. Stem Cell Res Ther. 9 (1): 96.
21. Witonsky, S. *et al.* (2019) Can levamisole upregulate the equine cell-mediated macrophage (M1) dendritic cell (DC1) T-helper 1 (CD4 Th1) T-cytotoxic (CD8) immune response *in vitro.*? J Vet Intern Med. 33 (2): 889-96.
22. Lopez, B.S. *et al.* (2019) The effect of age on foal monocyte-derived dendritic cell (MoDC) maturation and function after exposure to killed bacteria. Vet Immunol Immunopathol. 210: 38-45.
23. Lucassen, A. *et al.* (2021) A *Saccharomyces cerevisiae* Fermentation Product (Olimond BB) Alters the Early Response after Influenza Vaccination in Racehorses. Animals (Basel). 18;11(9):2726.

Further Reading	1. Burk, J. *et al.* (2013) Equine cellular therapy-from stall to bench to bedside? Cytometry A. 83: 103-13
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA1085PE 20487
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

MOUSE ANTI HORSE MHC CLASS I MONOMORPHIC:FITC (MCA1086F)
MOUSE ANTI HORSE MHC CLASS I MONOMORPHIC (MCA1086GA)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	**Worldwide**	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	**Europe**	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M375267:210104'

Printed on 25 Mar 2024