Datasheet: MCA1078F

BATCH NUMBER 154593

Description:	MOUSE ANTI HORSE CD4:FITC
Specificity:	CD4
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	CVS4
Isotype:	IgG1
Quantity:	0.1 mg

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 - 1/10
Immunofluorescence			▪	

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

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

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

Approx. Protein Concentrations

IgG concentration 0.1mg/ml

Immunogen	Equine thymocytes.
External Database Links	**UniProt:** F6Y6X8 Related reagents
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the X63-Ag 8.653 mouse myeloma cell line.
Specificity	**Mouse anti Horse CD4 antibody, clone CVS4** recognizes Equine CD4, a ~58 kDa cell surface glycoprotein that is primarily expressed on a subpopulation of T lymphocytes. As in humans, equine CD4 expression is mutually exclusive with CD8 expression on mature T-cells A study undertaken using Mouse anti Horse CD4, clone CVS4 to identify CD4 on several wild african equid species indicates that the CVS4 clone recognizes Somali wild ass (*Equus asinus*) but not Grévy's Zebra (*E. grevyi*) or Hartmann's Mountain Zebra (*E. zebra*). In addition to the CVS4 clone, other CVS clones recognising equine cell surface and MHC antigen are available from Bio-Rad.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Lunn, D.P. *et al.* (1991) Three monoclonal antibodies identifying antigens on all equine T lymphocytes, and two mutually exclusive T-lymphocyte subsets. Immunology. 74 (2): 251-7. 2. Kydd, J. *et al.* (1994) Report of the First International Workshop on Equine Leucocyte Antigens, Cambridge, UK, July 1991. Vet Immunol Immunopathol. 42 (1): 3-60. 3. Deeg,C.A. *et al.* (2004) The uveitogenic potential of retinal S-antigen in horses. Invest Ophthalmol Vis Sci. 45: 2286-92 4. Pearson, W. *et al.* (2007) Low-dose ginseng (Panax quinquefolium) modulates the course and magnitude of the antibody response to vaccination against equid herpesvirus I in horses. Can J Vet Res. 71: 213-7. 5. Brault, S.A. *et al.* (2010) The immune response of foals to natural infection with equid herpesvirus-2 and its association with febrile illness. Vet Immunol Immunopathol. 137: 136-41. 6. Goodman, L.B. *et al.* (2007) A point mutation in a herpesvirus polymerase determines neuropathogenicity. PLoS Pathog. 3(11):e160. 7. Hamza, E.*et al.* (2012) CD4+CD25+ T cells expressing FoxP3 in Icelandic horses affected with insect bite hypersensitivity. Vet Immunol Immunopathol. 148 (1-2): 139-44. 8. Go, Y.Y. *et al.* (2010) Complex interactions between the major and minor envelope proteins of equine arteritis virus determine its tropism for equine CD3+ T lymphocytes and CD14+ monocytes. J Virol. 84: 4898-911 9. Lunn, D.P. *et al.* (1998) Report of the Second Equine Leucocyte Antigen Workshop, Squaw valley, California, July 1995. Vet Immunol Immunopathol. 62: 101-143 10. Ibrahim, S. *et al.* (2007) Screening of anti-human leukocyte monoclonal antibodies for reactivity with equine leukocytes. Vet Immunol Immunopathol. 119 (1-2): 63-80.

11. Lai SW *et al.* (2004) Influence of *Ganoderma lucidum* on blood biochemistry and immunocompetence in horses. Am J Chin Med. 32 (6): 931-40.
12. Ferreira-Dias, G. *et al.* (2005) Seasonal reproduction in the mare: possible role of plasma leptin, body weight and immune status. Domest Anim Endocrinol. 29 (1): 203-13.
13. Agrícola, R. *et al.* (2008) Blood lymphocyte subpopulations, neutrophil phagocytosis and proteinogram during late pregnancy and postpartum in mares. Reprod Domest Anim. 43 (2): 212-7.
14. de Bruijn, C.M. *et al.* (2007) Clinical, histopathological and immunophenotypical findings in five horses with cutaneous malignant lymphoma. Res Vet Sci. 83 (1): 63-72.
15. Roberto Da Costa, R.P. *et al.* (2003) Peripheral blood neutrophil function and lymphocyte subpopulations in cycling mares. Reprod Domest Anim. 38 (6): 464-9.
16. Uner, A. G. *et al.* (2013) Blood Levels of Selected Metabolic Factors, Cytokines, and Lymphocyte Subpopulations in Arabian and Thoroughbred Horses During the Longest and Shortest Days of the Year J Equine Vet Sci. 33 (11): 969-976.
17. Garcia-Tapia, D. *et al.* (2006) Replication of West Nile virus in equine peripheral blood mononuclear cells. Vet Immunol Immunopathol. 110 (3-4): 229-44.
18. Tessier, L. *et al.* (2015) Phenotypic and immunomodulatory properties of equine cord blood-derived mesenchymal stromal cells. PLoS One. 10 (4): e0122954.
19. Khol-Parisini, A. *et al.* (2012) Highly deoxynivalenol contaminated oats and immune function in horses. Arch Anim Nutr. 66 (2): 149-61.
20. Ziegler, A. *et al.* (2016) Identification and characterization of equine blood plasmacytoid dendritic cells. Dev Comp Immunol. 65: 352-7.
21. Behrens, N.E. & Gershwin, L.J. (2015) Immune modulation of T regulatory cells and IgE responses in horses vaccinated with West Nile virus vaccine combined with a CpG ODN. Vaccine. 33 (43): 5764-71.
22. Degroote, R.L. *et al.* (2017) Formin like 1 expression is increased on CD4+ T lymphocytes in spontaneous autoimmune uveitis. J Proteomics. 154: 102-108.
23. Krakowski. L. *et al.* (2017) Changes in Blood Lymphocyte Subpopulations and Expression of MHC-II Molecules in Wild Mares Before and After Parturition. J Vet Res. 61 (2): 217-21.

Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. 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 #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1078F 10041
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

MOUSE ANTI HORSE CD8:RPE (MCA2385PE)

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

'M364752:200529'

Printed on 24 Mar 2024