

Datasheet: MCA1078GA

### **BATCH NUMBER 151405**

Description: MOUSE ANTI HORSE CD		
Specificity:	CD4	
Format:	Purified	
Product Type:	Monoclonal Antibody	
Clone:	CVS4	
Isotype:	lgG1	
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	•			1/25 - 1/200
Immunohistology - Frozen	•			
Immunohistology - Paraffin				
ELISA				
Immunoprecipitation	•			
Western Blotting				

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 - liquid	
Preparation	Purified IgG prepared by affinity chromatography on Protein A supernatant	from tissue culture
Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> )	
Carrier Free	Yes	

Approx. Protein Concentrations	IgG concentration 1.0mg/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	<b>Mouse anti Horse CD4 antibody, clone CVS4</b> 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 ( <i>Equus asinus</i> ) but not Grévy's Zebra ( <i>E. grevyi</i> ) or Hartmann's Mountain Zebra ( <i>E. zebra</i> ).			
	In addition to the CVS4 clone, other <u>CVS clones</u> recognising equine cell surface and MHC antigen are available from Bio-Rad.			
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.			
References	1. Lunn, D.P. <i>et al.</i> (1991) Three monoclonal antibodies identifying antigens on all equine T lymphocytes, and two mutually exclusive T-lymphocyte subsets. <u>Immunology. 74 (2):</u> 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. <i>et al.</i> (2004) The uveitogenic potential of retinal S-antigen in horses. <u>Invest Ophthalmol Vis Sci. 45: 2286-92</u>			
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	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. <u>Vet Immunol Immunopathol. 137:</u> 136-41.			
	6. Goodman, L.B. <i>et al.</i> (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. <u>J Virol</u>. 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

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- 12. Ferreira-Dias, G. *et al.* (2005) Seasonal reproduction in the mare: possible role of plasma leptin, body weight and immune status. <u>Domest Anim Endocrinol. 29 (1): 203-13.</u>
- 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. <u>Vet Immunol Immunopathol.</u> 110 (3-4): 229-44.
- 18. Tessier, L. *et al.* (2015) Phenotypic and immunomodulatory properties of equine cord blood-derived mesenchymal stromal cells. <u>PLoS One. 10 (4): e0122954.</u>
- 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. <u>Dev Comp Immunol. 65: 352-7.</u>
- 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. <u>Vaccine</u>. 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. <u>J Proteomics</u>. 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. <u>J Vet Res. 61</u> (2): 217-21.

### Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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 #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1078GA">https://www.bio-rad-antibodies.com/SDS/MCA1078GA</a> 10040

## Related Products

## **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12...) RPE

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR76...) RPE

Goat Anti Mouse IgG (STAR70...) FITC

Rabbit Anti Mouse IgG (STAR13...) HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Rabbit Anti Mouse IgG (STAR9...) <u>FITC</u>

Goat Anti Mouse IgG (STAR77...) HRP

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

## **Recommended Useful Reagents**

MOUSE ANTI HORSE CD8:FITC (MCA2385F)
MOUSE ANTI HORSE CD8:RPE (MCA2385PE)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M364753:200529'

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