

## Datasheet: MCA1078GA

<b>Description:</b>	MOUSE ANTI HORSE CD4
<b>Specificity:</b>	CD4
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	CVS4
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	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.

<b>Target Species</b>	Horse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml
<b>Immunogen</b>	Equine thymocytes.
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">F6Y6X8</a> <a href="#">Related reagents</a>

<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the X63-Ag 8.653 mouse myeloma cell line.
<b>Specificity</b>	<p><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</p> <p>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>).</p> <p>In addition to the CVS4 clone, other <a href="#">CVS clones</a> recognising equine cell surface and MHC antigen are available from Bio-Rad.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>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. <a href="#">Immunology. 74 (2): 251-7.</a></li> <li>Kydd, J. <i>et al.</i> (1994) Report of the First International Workshop on Equine Leucocyte Antigens, Cambridge, UK, July 1991. <a href="#">Vet Immunol Immunopathol. 42 (1): 3-60.</a></li> <li>Deeg, C.A. <i>et al.</i> (2004) The uveitogenic potential of retinal S-antigen in horses. <a href="#">Invest Ophthalmol Vis Sci. 45: 2286-92</a></li> <li>Pearson, W. <i>et al.</i> (2007) Low-dose ginseng (<i>Panax quinquefolium</i>) modulates the course and magnitude of the antibody response to vaccination against equid herpesvirus I in horses. <a href="#">Can J Vet Res. 71: 213-7.</a></li> <li>Brault, S.A. <i>et al.</i> (2010) The immune response of foals to natural infection with equid herpesvirus-2 and its association with febrile illness. <a href="#">Vet Immunol Immunopathol. 137: 136-41.</a></li> <li>Goodman, L.B. <i>et al.</i> (2007) A point mutation in a herpesvirus polymerase determines neuropathogenicity. <a href="#">PLoS Pathog. 3(11):e160.</a></li> <li>Hamza, E. <i>et al.</i> (2012) CD4+CD25+ T cells expressing FoxP3 in Icelandic horses affected with insect bite hypersensitivity. <a href="#">Vet Immunol Immunopathol. 148 (1-2): 139-44.</a></li> <li>Go, Y.Y. <i>et al.</i> (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. <a href="#">J Virol. 84: 4898-911</a></li> <li>Lunn, D.P. <i>et al.</i> (1998) Report of the Second Equine Leucocyte Antigen Workshop, Squaw valley, California, July 1995. <a href="#">Vet Immunol Immunopathol. 62: 101-143</a></li> <li>Ibrahim, S. (2007) Analysis of monoclonal antibody cross-reactivity with leukocytes from equids and cloning of CD28. <a href="#">Anchor Text</a></li> <li>Lai SW <i>et al.</i> (2004) Influence of <i>Ganoderma lucidum</i> on blood biochemistry and immunocompetence in horses. <a href="#">Am J Chin Med. 32 (6): 931-40.</a></li> <li>Ferreira-Dias, G. <i>et al.</i> (2005) Seasonal reproduction in the mare: possible role of plasma leptin, body weight and immune status. <a href="#">Domest Anim Endocrinol. 29 (1): 203-13.</a></li> <li>Agrícola, R. <i>et al.</i> (2008) Blood lymphocyte subpopulations, neutrophil phagocytosis and proteinogram during late pregnancy and postpartum in mares. <a href="#">Reprod Domest Anim. 43 (2): 212-7.</a></li> <li>de Bruijn, C.M. <i>et al.</i> (2007) Clinical, histopathological and immunophenotypical findings in five horses with cutaneous malignant lymphoma. <a href="#">Res Vet Sci. 83 (1): 63-72.</a></li> <li>Roberto Da Costa, R.P. <i>et al.</i> (2003) Peripheral blood neutrophil function and lymphocyte subpopulations in cycling mares. <a href="#">Reprod Domest Anim. 38 (6): 464-9.</a></li> <li>Uner, A. G. <i>et al.</i> (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 <a href="#">J Equine Vet Sci. 33 (11): 969-976.</a></li> <li>Garcia-Tapia, D. <i>et al.</i> (2006) Replication of West Nile virus in equine peripheral blood mononuclear cells. <a href="#">Vet Immunol Immunopathol. 110 (3-4): 229-44.</a></li> </ol>

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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.](#)

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**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.

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**Shelf Life** 18 months from date of despatch.

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#), [DyLight@649](#), [DyLight@680](#), [DyLight@800](#), [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Human Anti Mouse IgG1 (HCA036...) [HRP](#)

### Recommended Useful Reagents

- [MOUSE ANTI HORSE CD8:FITC \(MCA2385F\)](#)
- [MOUSE ANTI HORSE CD8:RPE \(MCA2385PE\)](#)

'M315159:180503'

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