

# Datasheet: MCA2213GA

**BATCH NUMBER 165851**

<b>Description:</b>	MOUSE ANTI SHEEP CD4
<b>Specificity:</b>	CD4
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	44.38
<b>Isotype:</b>	IgG2a
<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	▪			1/50 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Immunofluorescence	▪			

Where this product 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 product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Sheep
<b>Species Cross Reactivity</b>	<p>Reacts with: Goat</p> <p><b>N.B.</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.</p>
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture

supernatant

<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Fetal thymocytes.
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P05542</a> <a href="#">Related reagents</a>
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the mouse P3-NS1/1-Ag-4-1 myeloma cell line.
<b>Specificity</b>	<b>Mouse anti Sheep CD4 antibody, clone 44.38</b> recognizes the ovine CD4 cell surface glycoprotein, expressed by a subset of mature T lymphocytes. Mouse anti Sheep CD4 antibody, clone 44.38 immunoprecipitates a protein of ~56 kDa under reducing conditions.
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"><li>1. Mackay, C.R. <i>et al.</i> (1986) Three distinct subpopulations of sheep T lymphocytes. <a href="#">Eur J Immunol. 16 (1): 19-25.</a></li><li>2. Mackay, C.R. <i>et al.</i> (1986) Thymocyte subpopulations during early fetal development in sheep. <a href="#">J Immunol. 136 (5): 1592-9.</a></li><li>3. Mackay, C.R. <i>et al.</i> (1987) A monoclonal antibody to the p220 component of sheep LCA identifies B cells and a unique lymphocyte subset. <a href="#">Cell Immunol. 110 (1): 46-55.</a></li><li>4. Debes, G.F. <i>et al.</i> (2005) Chemokine receptor CCR7 required for T lymphocyte exit from peripheral tissues. <a href="#">Nat Immunol. 6: 889-94.</a></li><li>5. Foulon, E. <i>et al.</i> (2008) Two populations of ovine bone marrow-derived dendritic cells can be generated with recombinant GM-CSF and separated on CD11b expression. <a href="#">J Immunol Methods. 339: 1-10.</a></li><li>6. Umeshappa, C.S. <i>et al.</i> (2010) Cell-mediated immune response and cross-protective efficacy of binary ethylenimine-inactivated bluetongue virus serotype-1 vaccine in sheep. <a href="#">Vaccine. 28: 2522-31.</a></li><li>7. Gillan, S. <i>et al.</i> (2010) Identification of immune parameters to differentiate disease states among sheep infected with Mycobacterium avium subsp. paratuberculosis. <a href="#">Clin Vaccine Immunol. 17: 108-17.</a></li><li>8. Breugelmans, S. <i>et al.</i> (2010) Immunoassay of lymphocyte subsets in ovine palatine tonsils. <a href="#">Acta Histochem. 113: 416-22.</a></li><li>9. Brown, M.N. <i>et al.</i> (2010) Chemoattractant receptors and lymphocyte egress from extralymphoid tissue: changing requirements during the course of inflammation. <a href="#">J Immunol. 185: 4873-82.</a></li></ol>

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<b>Further Reading</b>	1. Lybeck, K. R. <i>et al.</i> (2009) Neutralization of interleukin-10 from CD14(+) monocytes enhances gamma interferon production in peripheral blood mononuclear cells from <i>Mycobacterium avium</i> subsp. paratuberculosis-infected goats. <a href="#">Clin. Vaccine. Immunol. 16: 1003-11.</a>
<b>Storage</b>	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2213GA">https://www.bio-rad-antibodies.com/SDS/MCA2213GA</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>

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