

## Datasheet: MCA2218GA

<b>Description:</b>	MOUSE ANTI SHEEP CD25
<b>Specificity:</b>	CD25
<b>Other names:</b>	IL-2R ALPHA CHAIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	9.14
<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	▪			1/10 - 1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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>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> )

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
External Database Links	<p><b>UniProt:</b>  <a href="#">P26898</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">443435</a>    IL2RA    <a href="#">Related reagents</a></p>
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.
Specificity	<p><b>Mouse anti Sheep CD25, clone 9.14</b> recognizes the ovine homologue of human CD25, also known as interleukin-2 receptor alpha chain (IL-2R<math>\alpha</math>), a single pass type I membrane protein expressed by activated ovine T-cells.</p> <p>Ovine Interleukin-2 is a cytokine involved in the proliferation, growth and differentiation of T-cells, B-cells and NK cells and its receptor is composed of 3 subunits, an <math>\alpha</math> chain (CD25), a <math>\beta</math> chain (CD122) and a <math>\gamma</math> chain (CD132). A non-covalent association of the <math>\alpha</math> and <math>\beta</math> subunits is required to form the high affinity receptor for IL-2.</p> <p>Mouse anti sheep CD25, clone 9.14 immunoprecipitates a band of ~47 kDa under reducing conditions, as expected for the mature protein due to high glycosylation, consistent with the observed molecular weight of IL-2R<math>\alpha</math> in other species including humans (<a href="#">Verhagen et. al.1993</a>).</p> <p>Antibodies to CD4, FoxP3 and CD25 may be used elucidate properties of T regulatory cells (T-regs), a unique subset of T helper cells that function in the control of effector cells vital in preventing autoimmunity (<a href="#">Rocchi et. al. 2011</a>).</p> <p>Mouse anti sheep CD25, clone 9.14 is one of a wide range of monoclonal antibodies available from Bio-Rad for ovine research and provides an important tool for the identification of ovine CD25.</p>
Flow Cytometry	Use 10 $\mu$ l of the suggested working dilution to label 1 x 10 <sup>6</sup> cells in 100 $\mu$ l
References	<ol style="list-style-type: none"> <li>1. Newland, A. <i>et al.</i> (2004) Ovine dendritic cells transduced with an adenoviral CTLA4eEGFP fusion protein construct induce hyporesponsiveness to allostimulation <a href="#">Immunology 113: 310-7.</a></li> <li>2. Gillan, S. <i>et al.</i> (2010) Identification of immune parameters to differentiate disease states among sheep infected with <i>Mycobacterium avium</i> subsp. <i>paratuberculosis</i>. <a href="#">Clin Vaccine Immunol. 17: 108-17.</a></li> <li>3. Gillan, S. <i>et al.</i> (2010) Ovine immune parameters following immunisation against <i>Mycobacterium avium</i> ssp. <i>paratuberculosis</i> using a lipid-based live-cell vaccine. <a href="#">Vet Immunol Immunopathol. 137 (1-2): 109-19.</a></li> </ol>

4. Piero, B. *et al.* (2016) Peripheral Blood and Milk Leukocytes Subsets of Lactating Sarda Ewes [It J Anim Sci. 12 \(2\): e34.](#)
5. Willems, M.G. *et al.* (2016) Systemic interleukin-2 administration improves lung function and modulates chorioamnionitis-induced pulmonary inflammation in the ovine fetus. [Am J Physiol Lung Cell Mol Physiol. 310 \(1\): L1-7.](#)
6. Lebedev, M. *et al.* (2021) Myeloid-like  $\gamma\delta$  T cell subset in the immune response to an experimental Rift Valley fever vaccine in sheep [Veterinary Immunology and Immunopathology. : 110184.](#)
7. Curina, G. *et al.* (2018) Evaluation of immune responses in mice and sheep inoculated with a live attenuated *Brucella melitensis*. REV1 vaccine produced in bioreactor. [Vet Immunol Immunopathol. 198: 44-53.](#)
8. Wooldridge, A.L. *et al.* (2019) Maternal allergic asthma during pregnancy alters fetal lung and immune development in sheep: potential mechanisms for programming asthma and allergy. [J Physiol. 597 \(16\): 4251-62.](#)

<b>Further Reading</b>	1. Rocchi, M.S. <i>et al.</i> (2011) Identification of CD4+CD25 high Foxp3+ T cells in ovine peripheral blood. <a href="#">Vet Immunol Immunopathol. 144 (1-2): 172-7.</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/MCA2218GA">https://www.bio-rad-antibodies.com/SDS/MCA2218GA</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [FITC](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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