

## 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> )
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>External Database Links</b>	<b>UniProt:</b>

**Entrez Gene:**

[443435](#)   IL2RA   [Related reagents](#)

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**Fusion Partners**   Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.

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**Specificity**   **Mouse anti sheep CD25, clone 9.14** recognizes the ovine homologue of human CD25, also known as interleukin-2 receptor alpha chain (IL-2R $\alpha$ ), a single pass type I membrane protein expressed by activated ovine T-cells.

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  $\alpha$  chain (CD25), a  $\beta$  chain (CD122) and a  $\gamma$  chain (CD132). A non-covalent association of the  $\alpha$  and  $\beta$  subunits is required to form the high affinity receptor for IL-2.

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 $\alpha$  in other species including humans ([Verhagen et. al.1993](#)).

Antibodies to CD4, FoxP3 and CD25 may be used in studies 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 ([Rocchi et. al. 2011](#)).

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 and may be of use in facilitating further studies of T-regs in this species.

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**Flow Cytometry**   Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul

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**References**

1. Newland, A. *et al.* (2004) Ovine dendritic cells transduced with an adenoviral CTLA4eEGFP fusion protein construct induce hyporesponsiveness to allostimulation [Immunology 113: 310-7.](#)
2. Gillan, S. *et al.* (2010) Identification of immune parameters to differentiate disease states among sheep infected with *Mycobacterium avium* subsp. *paratuberculosis*. [Clin Vaccine Immunol. 17: 108-17.](#)
3. Gillan, S. *et al.* (2010) Ovine immune parameters following immunisation against *Mycobacterium avium* ssp. *paratuberculosis* using a lipid-based live-cell vaccine. [Vet Immunol Immunopathol. 137 \(1-2\): 109-19.](#)
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.](#)

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**Further Reading**   1. Rocchi, M.S. *et al.* (2011) Identification of CD4+CD25 high Foxp3+ T cells in ovine peripheral blood. [Vet Immunol Immunopathol. 144 \(1-2\): 172-7.](#)

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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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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Goat Anti Mouse IgG (H/L) (STAR117...) [FITC](#)

### Recommended Negative Controls

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

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto:antibody_sales_uk@bio-rad.com)

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Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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