

Datasheet: MCA2218F

Description:	MOUSE ANTI SHEEP CD25:FITC
Specificity:	CD25
Other names:	IL-2R ALPHA CHAIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	9.14
Isotype:	IgG1
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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			Neat - 1/10

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	Sheep		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		
External Database Links	UniProt: P26898Related reagents Entrez Gene: 443435IL2RARelated reagents		

Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.
Specificity	Mouse anti sheep CD25, clone 9.14, is specific for the ovine homologue of human CD25, also known as interleukin-2 receptor alpha chain (IL-2Rα), 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 α chain (CD25), a β chain (CD122) and a γ chain (CD132). A non-covalent association of the α and β subunits is required to form the high affinity receptor for IL-2. Immunoprecipitation studies have demonstrated that clone 9.14 precipitates a band of approximately 47 kDa under reducing conditions, which is that expected of the mature protein due to high glycosylation, and is consistent with the observed molecular weight of IL-2Rα in other species such as humans (Verhagen et. al.1993). Research has demonstrated that 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 used in facilitating further studies of T-regs in this species.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
References	1. Verhagen, A.M. <i>et al.</i> (1993) Characterization of the ovine interleukin-2 receptor-alpha chain: differential induction on precultured alpha beta and gamma delta T cells. Immunology. 79 (3): 471-8. 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>. Clin Vaccine Immunol. 17: 108-17. 3. Newland, A. <i>et al.</i> (2004) Ovine dendritic cells transduced with an adenoviral CTLA4eEGFP fusion protein construct induce hyporesponsiveness to allostimulation Immunology 113: 310-7. 4. 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. Vet Immunol Immunopathol. 137 (1-2): 109-19.
Further Reading	1. Rocchi, M.S. <i>et al.</i> (2011) Identification of CD4+CD25 high Foxp3+ T cells in ovine peripheral blood. Vet Immunol Immunopathol. 144 (1-2): 172-7.
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. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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