Datasheet: MCA2218F

BATCH NUMBER 162880

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 Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin

Approx. Protein

IgG concentration 0.1 mg/ml

Concentrations	
External Database Links	**UniProt:** P26898 Related reagents **Entrez Gene:** 443435 IL2RA Related reagents
RRID	AB_2125624
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** recognizes 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. 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-2Rα in other species including humans (Verhagen *et. al.*1993). 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 (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.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1 x 10^6 cells in 100ul.
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.
6. Lebedev, M. *et al.* (2021) Myeloid-like γδ 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.

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.
Storage	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. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2218F 10041
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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M385105:210513'

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