

Datasheet: MCA2213A647

BATCH NUMBER 148934

Description:	MOUSE ANTI SHEEP CD4:Alexa Fluor® 647
Specificity:	CD4
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	44.38
Isotype:	IgG2a
Quantity:	100 TESTS/1ml

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								
Species Cross Reactivity	Reacts with: Goat N.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.								
Product Form	Purified IgG conjugated to Alexa Fluor® 647 - liquid								
Max Ex/Em	<table><tr><th>Fluorophore</th><th>Excitation Max (nm)</th><th>Emission Max (nm)</th></tr><tr><td>Alexa Fluor®647</td><td>650</td><td>665</td></tr></table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®647	650	665		
Fluorophore	Excitation Max (nm)	Emission Max (nm)							
Alexa Fluor®647	650	665							
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant								
Buffer Solution	Phosphate buffered saline								

Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05mg/ml
Immunogen	Fetal thymocytes.
External Database Links	UniProt: P05542 Related reagents
RRID	AB_2077625
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse P3-NS1/1-Ag-4-1 myeloma cell line.
Specificity	Mouse anti Sheep CD4 antibody, clone 44.38 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.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Mackay, C.R. <i>et al.</i> (1986) Three distinct subpopulations of sheep T lymphocytes. Eur J Immunol. 16 (1): 19-25. 2. Mackay, C.R. <i>et al.</i> (1986) Thymocyte subpopulations during early fetal development in sheep. J Immunol. 136 (5): 1592-9. 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. Cell Immunol. 110 (1): 46-55. 4. Brown, M.N. <i>et al.</i> (2010) Chemoattractant receptors and lymphocyte egress from extralymphoid tissue: changing requirements during the course of inflammation. J Immunol. 185: 4873-82. 5. Breugelmans, S. <i>et al.</i> (2010) Immunoassay of lymphocyte subsets in ovine palatine tonsils. Acta Histochem. 113: 416-22. 6. Connelley, T. <i>et al.</i> (2011) NKp46 defines ovine cells that have characteristics corresponding to NK cells. Vet Res. 42: 37. 7. Debes, G.F. <i>et al.</i> (2005) Chemokine receptor CCR7 required for T lymphocyte exit from peripheral tissues. Nat Immunol. 6: 889-94. 8. 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. J Immunol Methods. 339: 1-10. 9. 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. Vaccine. 28: 2522-31. 10. Silva, A.P. <i>et al.</i> (2015) Encapsulated <i>Brucella ovis</i> Lacking a Putative ATP-Binding Cassette Transporter (ΔabcBA) Protects against Wild Type <i>Brucella ovis</i> in Rams. PLoS One. 10 (8): e0136865. 11. Gillan, S. <i>et al.</i> (2010) Identification of immune parameters to differentiate disease

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Further Reading

1. Lybeck, K. R. *et al.* (2009) Neutralization of interleukin-10 from CD14(+) monocytes enhances gamma interferon production in peripheral blood mononuclear cells from *Mycobacterium avium* subsp. *paratuberculosis*-infected goats. [Clin. Vaccine. Immunol. 16: 1003-11.](#)

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.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2213A647 10041
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA929A647\)](#)

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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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M366359:200529'

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