

## Datasheet: MCA2225PE

<b>Description:</b>	MOUSE ANTI SHEEP MHC CLASS II DQ DR POLYMORPHIC:RPE
<b>Specificity:</b>	MHC CLASS II DQ DR POLYMORPHIC
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	28.1
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS

## 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	▪			Neat - 1/10

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.

### Target Species

Sheep

### Species Cross Reactivity

Reacts with: Bovine, 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 R. Phycoerythrin (RPE) - lyophilized

### Reconstitution

Reconstitute with 1 ml distilled water

### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

### Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> ) 1% bovine serum albumin 5% sucrose
<b>Immunogen</b>	Ovine alveolar macrophages.
<b>RRID</b>	AB_324857
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Sheep MHC Class II DQ DR antibody, clone 28.1</b> recognizes a polymorphic epitope on ovine MHC class II DQ and DR molecules, which are constitutively expressed on antigen presenting cells such as dendritic cells, B lymphocytes, monocytes, macrophages, activated T lymphocytes and may be induced on a range of other cell types by interferon gamma.</p> <p>The major histocompatibility complex (MHC) is a cluster of genes some of which are important in the immune response to infections. In sheep, this complex is referred to as the ovine leukocyte antigen (OLA) region. There are 2 major types of MHC class IIa molecules encoded by the OLA which are DR and DQ each composed of an alpha and beta chain.</p> <p>Mouse anti Sheep MHC Class II DQ DR antibody, clone 28.1 recognizes ovine MHC II transfectants DQ - T28.1, DQ - T26.2 and DR - T31.3 but not DR - T8.1. (<a href="#">Ballingall, K. et al. 1995</a>).</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>1. Puri, N.K. <i>et al.</i> (1987) Monoclonal antibodies to sheep MHC class II molecules recognize all HLA-D or subsets of HLA-D region products. <a href="#">Hum Immunol. 20 (3): 195-207.</a></li> <li>2. Puri, N.K. &amp; Brandon, M.R. (1987) Sheep MHC class II molecules. II. Identification and characterization of four distinct subsets of sheep MHC class II molecules. <a href="#">Immunology. 62 (4): 575-80.</a></li> <li>3. Puri, N.K. <i>et al.</i> (1987) Sheep MHC class II molecules. I. Immunochemical characterization. <a href="#">Immunology. 62 (4): 567-73.</a></li> <li>4. Puri, N.K. <i>et al.</i> (1987) Monoclonal antibodies to sheep MHC class I and class II molecules: biochemical characterization of three class I gene products and four distinct subpopulations of class II molecules. <a href="#">Vet Immunol Immunopathol. 15 (1-2): 59-86.</a></li> <li>5. Ballingall, K. <i>et al.</i> (1995) Analysis of the fine specificities of sheep major histocompatibility complex class II - Specific monoclonal antibodies using mouse L - Cell transfectants. <a href="#">Anim. Genet. 26: 79-84.</a></li> <li>6. Ferret-Bernard, S. <i>et al.</i> (2011) Mesenteric lymph node cells from neonates present a prominent IL-12 response to CpG oligodeoxynucleotide via an IL-15 feedback loop of amplification. <a href="#">Vet Res. 42:19.</a></li> <li>7. Olivier, M. <i>et al.</i> (2012) Capacities of Migrating CD1b Lymph Dendritic Cells to Present</li> </ol>

Salmonella Antigens to Naive T Cells. [PLoS One. 7: e30430.](#)

8. Arzt, J. *et al.* (2017) Pathogenesis of virulent and attenuated foot-and-mouth disease virus in cattle. [Virol J. 14 \(1\): 89.](#)

9. Ducournau, C. *et al.* (2020) Effective Nanoparticle-Based Nasal Vaccine Against Latent and Congenital Toxoplasmosis in Sheep. [Front Immunol. 11: 2183.](#)

10. Baillou, A. *et al.* (2024) Characterization of intestinal mononuclear phagocyte subsets in young ruminants at homeostasis and during *Cryptosporidium parvum* infection [Front Immunol.15: 02 May \[Epub ahead of print\].](#)

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**Storage** Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.  
This product should be stored undiluted.  
DO NOT FREEZE.  
This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2225PE>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

**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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Tel: +49 (0) 89 8090 95 21

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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://bio-rad-antibodies.com/datasheets)

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