

Datasheet: MCA2226

**BATCH NUMBER 167457**

<b>Description:</b>	MOUSE ANTI SHEEP MHC CLASS II DR MONOMORPHIC
<b>Specificity:</b>	MHC CLASS II DR MONOMORPHIC
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	37.68
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.25 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	▪			1/50 - 1/200
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>Species Cross Reactivity</b>	<p>Reacts with: Goat, Human, Bovine</p> <p><b>N.B.</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.</p>
<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>Immunogen</b>	Splenocytes from ATL mice.
<b>RRID</b>	AB_324580
<b>Specificity</b>	<p><b>Mouse anti Sheep MHC class II antibody, clone 37.68</b> recognizes a monomorphic epitope on ovine MHC class II DR molecules, 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>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 1 x 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 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>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) 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>4. Ballingall, K.T. <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 (2): 79-84.</a></li> <li>5. Wang, Y. <i>et al.</i> (2017) Characterization of a secreted cystatin of the parasitic nematode <i>Haemonchus contortus</i> and its immune-modulatory effect on goat monocytes. <a href="#">Parasit Vectors. 10 (1): 425.</a></li> <li>6. Wang, Y. <i>et al.</i> (2020) Characterization of a rhodanese homologue from <i>Haemonchus contortus</i> and its immune-modulatory effects on goat immune cells <i>in vitro</i>. <a href="#">Parasit Vectors. 13 (1): 454.</a></li> <li>7. López-Fernández, A. <i>et al.</i> (2020) Effect of Allogeneic Cell-Based Tissue-Engineered Treatments in a Sheep Osteonecrosis Model. <a href="#">Tissue Eng Part A. 26 (17-18): 993-1004.</a></li> <li>8. Wang, Y. <i>et al.</i> (2020) Modulatory functions of recombinant electron transfer</li> </ol>

flavoprotein  $\alpha$  subunit protein from *Haemonchus contortus* on goat immune cells *in vitro*.

[Vet Parasitol. 288: 109300.](#)

9. Ehsan, M. *et al.* (2021) *Fasciola gigantica*. tegumental calcium-binding EF-hand protein 4 exerts immunomodulatory effects on goat monocytes. [Parasit Vectors. 14 \(1\): 276.](#)

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**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.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2226>  
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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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

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

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

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

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

**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)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto: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](https://www.bio-rad-antibodies.com/datasheets)

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