

## Datasheet: MCA2444GA

<b>Description:</b>	MOUSE ANTI BOVINE MHC CLASS I MONOMORPHIC
<b>Specificity:</b>	MHC CLASS I MONOMORPHIC
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	IL-A88
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/25 - 1/200
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			

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.

<b>Target Species</b>	Bovine
<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>	Bovine peripheral blood mononuclear cells.
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q30289</a> <a href="#">Related reagents</a>
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Bovine MHC Class I Monomorphic antibody, clone IL-A88</b> recognizes a monomorphic determinant within the heavy chain of bovine MHC Class I.</p> <p>Bovine MHC class I molecules are expressed at varying levels on most nucleated cells, with exception of neural cells. This antibody immunoprecipitates a band of approximately 45 kDa under reducing conditions.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Ambagala, A.P. <i>et al.</i> (2000) An early pseudorabies virus protein down-regulates porcine MHC class I expression by inhibition of transporter associated with antigen processing (TAP). <a href="#">J Immunol. 164 (1): 93-9.</a></li> <li>2. Daubenberger CA <i>et al.</i> (1999) Bovine gammadelta T-cell responses to the intracellular protozoan parasite <i>Theileria parva</i>. <a href="#">Infect Immun. 67 (5): 2241-9.</a></li> <li>3. Araibi, E.H. <i>et al.</i> (2004) Downregulation of major histocompatibility complex class I in bovine papillomas. <a href="#">J Gen Virol. 85 (Pt 10): 2809-14.</a></li> <li>4. Ashrafi, G.H. <i>et al.</i> (2002) Down-regulation of MHC class I by bovine papillomavirus E5 oncoproteins. <a href="#">Oncogene. 21: 248-59.</a></li> <li>5. Suzuki, T. <i>et al.</i> (2003) Evaluation of the delta subunit of bovine adaptor protein complex 3 as a receptor for bovine leukaemia virus. <a href="#">J Gen Virol. 84 (Pt 5): 1309-16.</a></li> <li>6. Stephens SA &amp; Howard CJ (2002) Infection and transformation of dendritic cells from bovine afferent lymph by <i>Theileria annulata</i>. <a href="#">Parasitology. 124 (Pt 5): 485-93.</a></li> <li>7. Toye, P.G. <i>et al.</i> (1990) Transfection into mouse L cells of genes encoding two serologically and functionally distinct bovine class I MHC molecules from a MHC-homozygous animal: evidence for a second class I locus in cattle. <a href="#">Immunology. 70: 20-6.</a></li> <li>8. Marchetti, B. <i>et al.</i> (2002) The bovine papillomavirus oncoprotein E5 retains MHC class I molecules in the Golgi apparatus and prevents their transport to the cell surface. <a href="#">Oncogene. 21:7808-16</a></li> <li>9. Bainbridge, DR. <i>et al.</i> (2001) Increased expression of major histocompatibility complex (MHC) class I transplantation antigens in bovine trophoblast cells before fusion with maternal cells. <a href="#">Reproduction. 122: 907-13.</a></li> <li>10. Norimatsu, M. <i>et al.</i> (2003) Differential response of bovine monocyte-derived macrophages and dendritic cells to infection with <i>Salmonella typhimurium</i> in a low-dose model in vitro. <a href="#">Immunology. 108: 55-61.</a></li> <li>11. Goh, S. <i>et al.</i> (2016) Identification of <i>Theileria lestoquardi</i> Antigens Recognized by</li> </ol>

CD8+ T Cells. [PLoS One. 11 \(9\): e0162571.](#)

12. Rivalde, M.A. *et al.* (2020) BVDV permissiveness and lack of expression of co-stimulatory molecules on PBMCs from calves pre-infected with BVDV. [Comp Immunol Microbiol Infect Dis. 68: 101388.](#)

13. Liu, J. *et al.* (2020) *Theileria annulata*. transformation altered cell surface molecules expression and endocytic function of monocyte-derived dendritic cells. [Ticks Tick Borne Dis. 11 \(3\): 101365.](#)

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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/MCA2444GA>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Human Anti Mouse IgG2a (HCA037...) [HRP](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@550](#),  
[DyLight@650](#), [DyLight@680](#), [DyLight@800](#),  
[FITC](#), [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

### Recommended Negative Controls

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

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