

## Datasheet: MCA2189

**BATCH NUMBER 159439**

<b>Description:</b>	MOUSE ANTI MOUSE MHC CLASS I
<b>Specificity:</b>	MHC CLASS I
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	2G5
<b>Isotype:</b>	IgG2b
<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	▪			1/10 - 1/25
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>	Mouse
<b>Species Cross Reactivity</b>	<p>Reacts with: Rat, Guinea Pig, Sheep, Bovine, Pig, Human, Hamster</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
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Purified H-2K <sup>b</sup> and H-2D <sup>b</sup> MHC-I molecules.
<b>RRID</b>	AB_324082
<b>Fusion Partners</b>	Spleen cells from immunised C1D mice were fused with cells of the X63 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Mouse MHC Class I antibody, clone 2G5</b> recognizes a monomorphic epitope present on murine MHC class I molecules, expressed at varying levels on the majority of nucleated cells. The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In mice, this complex is referred to as the histocompatibility 2 (H-2) region.</p> <p>The epitope recognized by clone 2G5 is conformation dependent and is reported to be phylogenetically conserved (<a href="#">Claesson et al. 1994</a>). Reactivity has been observed with some canine samples suggesting that this antibody may recognize a polymorphic epitope of canine MHC class I.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>Perone, M.J. <i>et al.</i> (2006) Dendritic cells expressing transgenic galectin-1 delay onset of autoimmune diabetes in mice. <a href="#">J Immunol. 177 (8): 5278-89.</a></li> <li>Vitadello, M. <i>et al.</i> (2010) Myofiber stress-response in myositis: parallel investigations on patients and experimental animal models of muscle regeneration and systemic inflammation. <a href="#">Arthritis Res Ther. 12 (2): R52.</a></li> <li>Huang, Y.C. <i>et al.</i> (2008) CD5-low expression lymphocytes in canine peripheral blood show characteristics of natural killer cells. <a href="#">J Leukoc Biol. 84 (6): 1501-10.</a></li> <li>Liu, C.C. <i>et al.</i> (2008) Transient downregulation of monocyte-derived dendritic-cell differentiation, function, and survival during tumoral progression and regression in an <i>in vivo</i> canine model of transmissible venereal tumor. <a href="#">Cancer Immunol Immunother. 57 (4): 479-91.</a></li> <li>Letellier, M. <i>et al.</i> (2008) Normal adult climbing fiber mono-innervation of cerebellar Purkinje cells in mice lacking MHC class I molecules. <a href="#">Dev Neurobiol. 68 (8): 997-1006.</a></li> <li>Gupta, A. <i>et al.</i> (2012) Efficacy of <i>Mycobacterium indicus pranii</i> immunotherapy as an adjunct to chemotherapy for tuberculosis and underlying immune responses in the lung. <a href="#">PLoS One. 7 (7): e39215.</a></li> <li>Giunchetti, R.C. <i>et al.</i> (2007) Immunogenicity of a killed <i>Leishmania</i> vaccine with saponin adjuvant in dogs. <a href="#">Vaccine. 25 (44): 7674-86.</a></li> </ol>

8. Cenci, E. *et al.* (2006) Modulation of phenotype and function of dendritic cells by a therapeutic synthetic killer peptide. [J Leukoc Biol. 79 \(1\): 40-5.](#)
9. Giunchetti RC *et al.* (2008) A killed *Leishmania* vaccine with sand fly saliva extract and saponin adjuvant displays immunogenicity in dogs. [Vaccine. 26 \(5\): 623-38.](#)
10. Patel, G.K. *et al.* (2012) A humanized stromal bed is required for engraftment of isolated human primary squamous cell carcinoma cells in immunocompromised mice. [J Invest Dermatol. 132 \(2\): 284-90.](#)
11. Zuza, A.L. *et al.* (2016) Astrocyte response to St. Louis encephalitis virus. [Virus Res. 217: 92-100.](#)
12. Lohan, P. *et al.* (2016) Culture expanded primary chondrocytes have potent immunomodulatory properties and do not induce an allogeneic immune response. [Osteoarthritis Cartilage. 24 \(3\): 521-33.](#)
13. Gupta, A. *et al.* (2012) Protective efficacy of *Mycobacterium indicus pranii* against tuberculosis and underlying local lung immune responses in guinea pig model. [Vaccine. 30 \(43\): 6198-209.](#)
14. Reid E *et al.* (2016) Type I and III IFNs Produced by Plasmacytoid Dendritic Cells in Response to a Member of the Flaviviridae Suppress Cellular Immune Responses. [J Immunol. 196 \(10\): 4214-26.](#)
15. Iwasaki, Y. *et al.* (2016) Differentiation/Purification Protocol for Retinal Pigment Epithelium from Mouse Induced Pluripotent Stem Cells as a Research Tool. [PLoS One. 11 \(7\): e0158282.](#)
16. Wang, Y. *et al.* (2020) Characterization of a rhodanese homologue from *Haemonchus contortus* and its immune-modulatory effects on goat immune cells *in vitro*. [Parasit Vectors. 13 \(1\): 454.](#)
17. 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.](#)

<b>Further Reading</b>	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. <a href="#">Vet Res. 39: 54.</a>
<b>Storage</b>	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2189">https://www.bio-rad-antibodies.com/SDS/MCA2189</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG (STAR70...) [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 (STAR77...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

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