

## Datasheet: MCA2189F

<b>Description:</b>	MOUSE ANTI MOUSE MHC CLASS I:FITC
<b>Specificity:</b>	MHC CLASS I
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	2G5
<b>Isotype:</b>	IgG2b
<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	▪			Neat - 1/5

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

Mouse

### Species Cross Reactivity

Reacts with: Rat, Guinea Pig, Sheep, Bovine, Pig, Human, Hamster  
**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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

### Preparation

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

### Buffer Solution

Phosphate buffered saline

<b>Preservative</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	1% bovine serum albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml
<b>Immunogen</b>	Purified H-2K <sup>b</sup> and H-2D <sup>b</sup> MHC-I molecules.
<b>RRID</b>	AB_324079
<b>Fusion Partners</b>	Spleen cells from immunized 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 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>Cenci, E. <i>et al.</i> (2006) Modulation of phenotype and function of dendritic cells by a therapeutic synthetic killer peptide. <a href="#">J Leukoc Biol. 79 (1): 40-5.</a></li> <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>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> <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 monoinnervation of cerebellar Purkinje cells in mice lacking MHC class I molecules. <a href="#">Dev Neurobiol. 68 (8): 997-1006.</a></li> <li>Giunchetti RC <i>et al.</i> (2008) A killed <i>Leishmania</i> vaccine with sand fly saliva extract and saponin adjuvant displays immunogenicity in dogs. <a href="#">Vaccine. 26 (5): 623-38.</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>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> </ol>

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. 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.](#)
12. Zuza, A.L. *et al.* (2016) Astrocyte response to St. Louis encephalitis virus. [Virus Res. 217: 92-100.](#)
13. 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.](#)
14. 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.](#)
15. 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.](#)
16. 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.](#)
17. Wang, Y. *et al.* (2020) Modulatory functions of recombinant electron transfer flavoprotein  $\alpha$  subunit protein from *Haemonchus contortus* on goat immune cells *in vitro*. [Vet Parasitol. 288: 109300.](#)

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**Further Reading** 1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. [Vet Res. 39: 54.](#)

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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. This product is photosensitive and should be protected from light.

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**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/MCA2189F>  
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**Regulatory** For research purposes only

## Related Products

### Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

**North & South** Tel: +1 800 265 7376

**Worldwide** Tel: +44 (0)1865 852 700

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

**America** Fax: +1 919 878 3751

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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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