

Datasheet: MCA2189A647

Description:	MOUSE ANTI MOUSE MHC CLASS I:Alexa Fluor® 647
Specificity:	MHC CLASS I
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	2G5
Isotype:	IgG2b
Quantity:	100 TESTS/1ml

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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

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 Alexa Fluor® 647 - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665

Preparation

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

Buffer Solution

Phosphate buffered saline

Preservative	0.09% sodium azide (NaN ₃)
Stabilisers	1% bovine serum albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Purified H-2K ^b and H-2D ^b MHC-I molecules.
RRID	AB_321152
Fusion Partners	Spleen cells from immunized C1D mice were fused with cells of the X63 myeloma cell line.
Specificity	<p>Mouse anti Mouse MHC Class I antibody, clone 2G5 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 (Claesson et al. 1994). Reactivity has been observed with some canine samples suggesting that this antibody may recognize a polymorphic epitope of canine MHC class I.</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
References	<ol style="list-style-type: none"> Cenci, E. <i>et al.</i> (2006) Modulation of phenotype and function of dendritic cells by a therapeutic synthetic killer peptide. J Leukoc Biol. 79 (1): 40-5. Perone, M.J. <i>et al.</i> (2006) Dendritic cells expressing transgenic galectin-1 delay onset of autoimmune diabetes in mice. J Immunol. 177 (8): 5278-89. Giunchetti, R.C. <i>et al.</i> (2007) Immunogenicity of a killed <i>Leishmania</i> vaccine with saponin adjuvant in dogs. Vaccine. 25 (44): 7674-86. Huang, Y.C. <i>et al.</i> (2008) CD5-low expression lymphocytes in canine peripheral blood show characteristics of natural killer cells. J Leukoc Biol. 84 (6): 1501-10. 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. Cancer Immunol Immunother. 57 (4): 479-91. Letellier, M. <i>et al.</i> (2008) Normal adult climbing fiber monoinnervation of cerebellar Purkinje cells in mice lacking MHC class I molecules. Dev Neurobiol. 68 (8): 997-1006. 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. Vaccine. 26 (5): 623-38. 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. Arthritis Res Ther. 12 (2): R52. 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. PLoS One. 7 (7): e39215.

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 α subunit protein from *Haemonchus contortus* on goat immune cells *in vitro*. [Vet Parasitol. 288: 109300.](#)

Further Reading

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

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.

Guarantee

12 months from date of despatch

Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2189A647>

10041

Regulatory

For research purposes only

Related Products

Recommended Useful Reagents

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

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

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'M413233:221121'

Printed on 23 May 2024

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