

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 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.

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.						
Product Form	Purified IgG conjugated to Alexa Fluor® 647 - liquid						
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Alexa Fluor®647</td> <td>650</td> <td>665</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®647	650	665
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 Stabilisers	0.09% Sodium Azide 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.						
Fusion Partners	Spleen cells from immunised C1D mice were fused with cells of the X63 myeloma cell line.						

Specificity

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.

The epitope recognised 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.

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. Claesson, M.H. *et al.* (1994) Antibodies directed against monomorphic and evolutionary conserved self epitopes may be generated in 'knock-out' mice. Development of monoclonal antibodies directed against monomorphic MHC class I determinants. [Scand J Immunol. 40 \(2\): 257-64.](#)
2. Vitadello, M. *et al.* (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.](#)
3. Huang, Y.C. *et al.* (2008) CD5-low expression lymphocytes in canine peripheral blood show characteristics of natural killer cells. [J Leukoc Biol. 84 \(6\): 1501-10.](#)
4. Liu, C.C. *et al.* (2008) Transient downregulation of monocyte-derived dendritic-cell differentiation, function, and survival during tumoral progression and regression in an *in vivo* canine model of transmissible venereal tumor. [Cancer Immunol Immunother. 57 \(4\): 479-91.](#)
5. Letellier, M. *et al.* (2008) Normal adult climbing fiber mono-innervation of cerebellar Purkinje cells in mice lacking MHC class I molecules. [Dev Neurobiol. 68 \(8\): 997-1006.](#)
6. Gupta, A. *et al.* (2012) Efficacy of *Mycobacterium indicus pranii* immunotherapy as an adjunct to chemotherapy for tuberculosis and underlying immune responses in the lung. [PLoS One. 7 \(7\): e39215.](#)
7. Giunchetti, R.C. *et al.* (2007) Immunogenicity of a killed *Leishmania* vaccine with saponin adjuvant in dogs. [Vaccine. 25 \(44\): 7674-86.](#)
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. Mar 11. pii: S0168-1702\(16\)30007-7. \[Epub ahead of print\]](#)
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. Apr 6. pii: 1600049. \[Epub ahead of print\]](#)
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. Perone, M.J. *et al.* (2006) Dendritic cells expressing transgenic galectin-1 delay onset of autoimmune diabetes in mice. [J Immunol. 177 \(8\): 5278-89.](#)

Further Reading

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

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Acknowledgements

This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com

Health And Safety Information

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

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

America Fax: +1 919 878 3751

Email: 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

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

'M300541:170105'

Printed on 05 May 2018