Datasheet: MCA1212A647

BATCH NUMBER 175001

Description:	RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647
Specificity:	RAT IgG2a NEGATIVE CONTROL
Format:	ALEXA FLUOR® 647
Product Type:	Negative/Isotype Control
Isotype:	IgG2a
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	▪			*

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

Negative Control

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 G from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% sodium azide (NaN_3)
1% bovine serum albumin

Approx. Protein Concentrations

IgG concentration 0.05 mg/ml

Immunogen

Human lymphocytes.

RRID	AB_567361
Fusion Partners	Spleen cells from immunized DA rats were fused with cells of the rat Y3/Ag1.2.3. myeloma cell line.
Specificity	**Rat IgG2a Negative Control antibody** is suitable for the assessment of the level of non-specific binding of rat IgG2a monoclonal antibodies to mouse cells. Test results indicate Rat IgG2a Negative Control antibody is also suitable for use as a negative control with canine cells. **N.B.** This antibody recognizes a human cell surface marker, and therefore is not suitable as a negative control in human cells or cell lines.
References	1. Stapleton, T.W. *et al.* (2000) Investigation of the regenerative capacity of an acellular porcine medial meniscus for tissue engineering applications. Tissue Eng Part A. 17: 231-42. 2. Guilloteau, L.A. *et al.* (2003) Nramp1 is not a major determinant in the control of *Brucella melitensis* infection in mice. Infect Immun. 71: 621-8. 3. Sumagin, R. *et al.* (2008) Leukocyte-endothelial cell interactions are linked to vascular permeability via ICAM-1-mediated signaling. Am J Physiol Heart Circ Physiol. 295: H969-H977. 4. McConnell, M.J. *et al.* (2009) H2-K(b) and H2-D(b) regulate cerebellar long-term depression and limit motor learning. Proc Natl Acad Sci U S A. 106: 6784-9. 5. Chiu, W.C. *et al.* (2011) Effects of dietary fish oil supplementation on cellular adhesion molecule expression and tissue myeloperoxidase activity in hypercholesterolemic mice with sepsis. J Nutr Biochem. 20: 254-60. 6. Schmidt, E.P. *et al.* (2012) The pulmonary endothelial glycocalyx regulates neutrophil adhesion and lung injury during experimental sepsis. Nat Med. 18 (8): 1217-23. 7. Park, S.W. *et al.* (2012) A1 adenosine receptor allosteric enhancer PD-81723 protects against renal ischemia-reperfusion injury. Am J Physiol Renal Physiol. 303: F721-32. 8. Rabadi, M. *et al.* (2016) Peptidyl arginine deiminase-4-deficient mice are protected against kidney and liver injury after renal ischemia and reperfusion. Am J Physiol Renal Physiol. 311 (2): F437-49. 9. Rabadi, M.M. *et al.* (2019) Peptidyl arginine deiminase-4 exacerbates ischemic AKI by finding NEMO. Am J Physiol Renal Physiol. 316 (6): F1180-F1190. 10. Han, S.J. *et al.* (2020) Renal proximal tubular NEMO plays a critical role in ischemic acute kidney injury. JCI Insight. 5 (19): e139246. 11. Ono, Y. *et al.* (2018) CD11c+ M1-like macrophages (Møs) but not CD206+ M2-like Mø are involved in folliculogenesis in mice ovary. Sci Rep. 8 (1): 8171. 12. Han, S.J. *et al.* (2020) Selective nanoparticle-mediated targeting of renal tubular Toll-like receptor 9 attenuates ischemic acute kidney injury. Kidney Int. 98 (1): 76-87. 13. Rogato, F. *et al.* (2024) Leukemia cutis as a prominent clinical sign in a dog with acute myeloid leukemia. Vet Clin Pathol. 53 (4): 448-57. 14. Gómez-López, A.R. *et al.* (2026) CD47-SIRPα Axis as a Target for Neuroprotection. Glia. 74 (12): e70242.

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.
Guarantee	12 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: https://www.bio-rad-antibodies.com/SDS/MCA1212A647
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 (MCA6005A647)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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