Datasheet: MCA2456A647T

Description:	RAT ANTI MOUSE CD88:Alexa Fluor® 647
Specificity:	CD88
Other names:	C5aR
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	10/92
Isotype:	IgG2a
Quantity:	25 TESTS/0.25ml

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 - 1/5

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

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
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.05 mg/ml

Immunogen	RBL-2H3 transfected cells expressing murine C5aR.
External Database Links	**UniProt:** P30993 Related reagents **Entrez Gene:** 12273 C5ar1 Related reagents
Synonyms	C5ar, C5r1
RRID	AB_1102426
Fusion Partners	Cells from immunised Lou/c rats were fused with cells of the X63-Ag8.653 myeloma cell line.
Specificity	**Rat anti Mouse CD88 antibody, clone 10/92** recognizes murine CD88, a 45 kDa G-protein coupled cell surface receptor, otherwise known as C5aR. The CD88 molecule functions as a receptor for the complement component C5a, a potent proinflammatory molecule and chemoattractant for neutrophils to sites of infection. In mouse, CD88 is expressed on granulocytes, monocytes and macrophages but not on resting or stimulated lymphocytes. Rat anti Mouse CD88 antibody, clone 10/92 does not block the binding of the C5a to murine CD88 (Souri *et al.* 2003).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B/C).
References	1. Soruri, A. *et al*. (2003) Characterization of C5aR expression on murine myeloid and lymphoid cells by the use of a novel monoclonal antibody. Immunol Lett. 88:47-52. 2. Ager, R.R. *et al.* (2010) Microglial C5aR (CD88) expression correlates with amyloid-beta deposition in murine models of Alzheimer's disease. J Neurochem. 113: 389-401 3. Shagdarsuren, E. *et al.* (2010) C5a Receptor Targeting in Neointima Formation After Arterial Injury in Atherosclerosis-Prone Mice. Circulation. 122: 1026-36. 4. Cudaback, E. *et al.* (2011) Apolipoprotein E isoform-dependent microglia migration. FASEB J. 25: 2082-91. 5. Manthey, H.D. *et al.* (2011) Complement C5a inhibition reduces atherosclerosis in ApoE-/- mice. FASEB J. 25: 2447-55. 6. Pavlovski, D. *et al.* (2012) Generation of complement component C5a by ischemic neurons promotes neuronal apoptosis. FASEB J. 26 (9): 3680-90. 7. Denny, K.J. *et al.* (2013) C5a receptor signaling prevents folate deficiency-induced neural tube defects in mice. J Immunol. 190 (7): 3493-9. 8. Li, R. *et al.* (2013) C5L2: a controversial receptor of complement anaphylatoxin, C5a. FASEB J. 27 (3): 855-64.

9. Benson, M.J. *et al.* (2015) A novel anticonvulsant mechanism via inhibition of complement receptor C5ar1 in murine epilepsy models. Neurobiol Dis. 76: 87-97.
10. Brennan, F.H. *et al.* (2015) The Complement Receptor C5aR Controls Acute Inflammation and Astrogliosis following Spinal Cord Injury. J Neurosci. 35 (16): 6517-31.
11. Hernandez, M.X. *et al.* (2017) C5a Increases the Injury to Primary Neurons Elicited by Fibrillar Amyloid Beta. ASN Neuro. 9 (1): 1759091416687871.
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13. Cao, D. *et al.* (2022) Vascular Endothelial Cells Produce Coagulation Factors That Control Their Growth via Joint Protease-Activated Receptor and C5a Receptor 1 (CD88) Signaling. Am J Pathol. 192 (2): 361-378.

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/MCA2456A647T 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 (MCA1212A647)

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