

Datasheet: MCA2456B

**BATCH NUMBER 169095**

<b>Description:</b>	RAT ANTI MOUSE CD88:Biotin
<b>Specificity:</b>	CD88
<b>Other names:</b>	C5aR
<b>Format:</b>	Biotin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	10/92
<b>Isotype:</b>	IgG2a
<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

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.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG conjugated to Biotin - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide 1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml
<b>Immunogen</b>	RBL-2H3 transfected cells expressing murine C5aR.

<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P30993</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">12273</a> C5ar1 <a href="#">Related reagents</a>
<b>Synonyms</b>	C5ar, C5r1
<b>RRID</b>	AB_770084
<b>Fusion Partners</b>	Cells from immunised Lou/c rats were fused with cells of the X63-Ag8.653 myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Mouse CD88 antibody, clone 10/92</b> 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.</p> <p>Rat anti Mouse CD88 antibody, clone 10/92 does not block the binding of the C5a to murine CD88 (<a href="#">Souri et al. 2003</a>).</p>
<b>Flow Cytometry</b>	<p>Use 10ul of the suggested working dilution to label <math>1 \times 10^6</math> cells in 100ul.</p> <p>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 (<a href="#">BUF041A/B/C</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Soruri, A. <i>et al.</i> (2003) Characterization of C5aR expression on murine myeloid and lymphoid cells by the use of a novel monoclonal antibody. <a href="#">Immunol Lett. 88:47-52.</a></li> <li>2. Ager, R.R. <i>et al.</i> (2010) Microglial C5aR (CD88) expression correlates with amyloid-beta deposition in murine models of Alzheimer's disease. <a href="#">J Neurochem. 113: 389-401</a></li> <li>3. Shagdarsuren, E. <i>et al.</i> (2010) C5a Receptor Targeting in Neointima Formation After Arterial Injury in Atherosclerosis-Prone Mice. <a href="#">Circulation. 122: 1026-36.</a></li> <li>4. Cudaback, E. <i>et al.</i> (2011) Apolipoprotein E isoform-dependent microglia migration. <a href="#">FASEB J. 25: 2082-91.</a></li> <li>5. Manthey, H.D. <i>et al.</i> (2011) Complement C5a inhibition reduces atherosclerosis in ApoE<sup>-/-</sup> mice. <a href="#">FASEB J. 25: 2447-55.</a></li> <li>6. Pavlovski, D. <i>et al.</i> (2012) Generation of complement component C5a by ischemic neurons promotes neuronal apoptosis. <a href="#">FASEB J. 26 (9): 3680-90.</a></li> <li>7. Denny, K.J. <i>et al.</i> (2013) C5a receptor signaling prevents folate deficiency-induced neural tube defects in mice. <a href="#">J Immunol. 190 (7): 3493-9.</a></li> <li>8. Li, R. <i>et al.</i> (2013) C5L2: a controversial receptor of complement anaphylatoxin, C5a. <a href="#">FASEB J. 27 (3): 855-64.</a></li> <li>9. Benson, M.J. <i>et al.</i> (2015) A novel anticonvulsant mechanism via inhibition of complement receptor C5ar1 in murine epilepsy models. <a href="#">Neurobiol Dis. 76: 87-97.</a></li> </ol>

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.](#)
12. Benson, M.J. *et al.* (2017) The effects of C5aR1 on leukocyte infiltration following pilocarpine-induced status epilepticus. [Epilepsia. 58 \(4\): e54-e58.](#)
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.](#)

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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.

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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/MCA2456B>  
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**Regulatory** For research purposes only

## Related Products

### Recommended Useful Reagents

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

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M383115:210513'

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