

## Datasheet: MCA2456B

<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.

**External Database  
Links**

**UniProt:**

[P30993](#)    [Related reagents](#)

**Entrez Gene:**

[12273](#) C5ar1    [Related reagents](#)

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**Synonyms**

C5ar, C5r1

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**RRID**

AB\_770084

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**Fusion Partners**

Cells from immunised Lou/c rats were fused with cells of the X63-Ag8.653 myeloma cell line.

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**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](#)).

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label  $1 \times 10^6$  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](#)).

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**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<sup>-/-</sup> 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.](#)
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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