

## Datasheet: MCA2059A647

<b>Description:</b>	MOUSE ANTI HUMAN CD88:Alexa Fluor® 647
<b>Specificity:</b>	CD88
<b>Other names:</b>	C5aR
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	P12/1
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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](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.

#### Target Species

Human

#### Species Cross Reactivity

Reacts with: Rhesus Monkey

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

#### 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

<b>Preservative Stabilisers</b>	0.09% Sodium Azide 1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml
<b>Immunogen</b>	C5aR - peptide: Met <sub>1</sub> - Asn <sub>31</sub>
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P21730</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">728</a> C5AR1    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	C5AR, C5R1
<b>RRID</b>	AB_566908
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63 - Ag8 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD88 antibody, clone P12/1</b> recognizes the C5a receptor (C5aR) also known as CD88 or C5a anaphylatoxin chemotactic receptor 1. CD88 is predominantly expressed on cells of the myeloid lineage.</p> <p>When C5aR is preincubated with C5a, Mouse anti Human CD88 antibody, clone P12/1 does not bind to the receptor, as the binding site of P12/1 is located in the C5a binding region (<a href="#">Werfel et al. 1996</a> and <a href="#">Weinman et al. 2003</a>)</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Werfel, T. <i>et al.</i> (1996) CD88 antibodies specifically bind to C5aR on dermal CD117+ and CD14+ cells and react with a desmosomal antigen in human skin. <a href="#">J Immunol. 157: 1729-35.</a></li> <li>2. Opperman, M. <i>et al.</i> (1995) Antibodies from the myeloid panel that react with the C5a receptor and antagonize C5a biological activity. In: Schlossman, S.F. (ed.) Leucocyte Typing V. OUP: 955-6.</li> <li>3. Pollok-Kopp B <i>et al.</i> (2007) Dynamics of protein kinase C-mediated phosphorylation of the complement C5a receptor on serine 334. <a href="#">J Biol Chem. 282 (7): 4345-53.</a></li> <li>4. Werfel, T. <i>et al.</i> (1995) Binding of anti-C5a receptor (C5aR) antibodies to cells of clinically normal human skin. In: Schlossman, S.F. (ed.) Leucocyte Typing V. OUP: 957-9.</li> <li>5. Oppermann, M. (1995) Cluster report: (C5a receptor). In: Schlossman, S.F. (ed.) Leucocyte Typing V. OUP: 953-4.</li> <li>6. Hüttenrauch, F. <i>et al.</i> (2005) G protein-coupled receptor kinases promote phosphorylation and beta-arrestin-mediated internalization of CCR5 homo- and hetero-oligomers. <a href="#">J Biol Chem. 280: 37503-15.</a></li> <li>7. Huber-Lang, M. <i>et al.</i> (2005) Changes in the novel orphan, C5a receptor (C5L2), during</li> </ol>

- experimental sepsis and sepsis in humans. [J Immunol. 174 \(2\): 1104-10.](#)
8. Morris, A.C. *et al.* (2011) C5a-mediated neutrophil dysfunction is RhoA-dependent and predicts infection in critically ill patients. [Blood. 117: 5178-88.](#)
  9. Visser T *et al.* (2012) Homology in systemic neutrophil response induced by human experimental endotoxemia and by trauma. [Shock. 37 \(2\): 145-51.](#)
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  11. Patzelt, J. *et al.* (2015) Expression of anaphylatoxin receptors on platelets in patients with coronary heart disease. [Atherosclerosis. 238 \(2\): 289-95.](#)
  12. Unnewehr H *et al.* (2013) Changes and regulation of the C5a receptor on neutrophils during septic shock in humans. [J Immunol. 190 \(8\): 4215-25.](#)
  13. Visser T *et al.* (2011) Isolated blunt chest injury leads to transient activation of circulating neutrophils. [Eur J Trauma Emerg Surg. 37 \(2\): 177-84.](#)
  14. Presicce, P. *et al.* (2015) Neutrophil recruitment and activation in decidua with intra-amniotic IL-1beta in the preterm rhesus macaque. [Biol Reprod. 92 \(2\): 56.](#)
  15. Zannetti, C. *et al.* (2016) Characterization of the Inflammasome in Human Kupffer Cells in Response to Synthetic Agonists and Pathogens. [J Immunol. 197 \(1\): 356-67.](#)
  16. Werfel, T. *et al.* (1996) The human mast cell line HMC-1 expresses C5a receptors and responds to C5a but not to C5a(desArg). [Scand J Immunol. 44 \(1\): 30-6.](#)
  17. Weinmann, O. *et al.* (2003) Up-regulation of C5a receptor expression and function on human monocyte derived dendritic cells by prostaglandin E2. [Immunology. 110 \(4\): 458-65.](#)
  18. Hodille, E. *et al.* (2020) Staphylococcal Pantone–Valentine Leucocidin and Gamma Haemolysin Target and Lyse Mature Bone Marrow Leucocytes. [Toxins. 12 \(11\): 725.](#)

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#### Further Reading

1. Oppermann, M. *et al.* (1993) Probing the human receptor for C5a anaphylatoxin with site-directed antibodies. Identification of a potential ligand binding site on the NH2-terminal domain. [J Immunol. 151 \(7\): 3785-94.](#)
2. Oppermann, M. & Götze, O. (1994) Plasma clearance of the human C5a anaphylatoxin by binding to leucocyte C5a receptors. [Immunology. 82 \(4\): 516-21.](#)

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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. This product is photosensitive and should be protected from light.

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#### Guarantee

12 months from date of despatch

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#### Acknowledgements

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

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**Regulatory**                      For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA929A647\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

<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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'M385709:210513'

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