

## Datasheet: MCA2455A647

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|----------------------|--|
| <b>Description:</b>  | MOUSE ANTI HUMAN C3a RECEPTOR:Alexa Fluor® 647 |
| <b>Specificity:</b>  | C3a RECEPTOR                                   |
| <b>Other names:</b>  | COMPLEMENT COMPONENT 3a RECEPTOR 1             |
| <b>Format:</b>       | ALEXA FLUOR® 647                               |
| <b>Product Type:</b> | Monoclonal Antibody                            |
| <b>Clone:</b>        | hC3aRZ1  |
| <b>Isotype:</b>      | IgG1   |
| <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.

|                                       |   |                            |                          |
|---------------------------------------|---|----------------------------|--------------------------|
| <b>Target Species</b>                 | Human   |                            |                          |
| <b>Product Form</b>                   | Purified IgG conjugated to Alexa Fluor® 647- liquid   |                            |                          |
| <b>Max Ex/Em</b>                      | <b>Fluorophore</b>  | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                                       | Alexa Fluor®647   | 650                        | 665                      |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant |                            |                          |
| <b>Buffer Solution</b>                | Phosphate buffered saline   |                            |                          |
| <b>Preservative</b>                   | 0.09% Sodium Azide  |                            |                          |
| <b>Stabilisers</b>                    | 1% Bovine Serum Albumin   |                            |                          |
| <b>Approx. Protein Concentrations</b> | IgG concentration 0.05 mg/ml  |                            |                          |

|                                |  |
|--------------------------------|--|
| <b>Immunogen</b>               | Recombinant human C3aR protein.  |
| <b>External Database Links</b> | <p><b>UniProt:</b><br/> <a href="#">Q16581</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">719</a>    C3AR1    <a href="#">Related reagents</a></p>  |
| <b>Synonyms</b>                | AZ3B, C3R1, HNFAG09  |
| <b>RRID</b>                    | AB_877452  |
| <b>Fusion Partners</b>         | Cells from immunised BALB/c mice were fused with cells of the X63-Ag8.653 myeloma cell line.   |
| <b>Specificity</b>             | <p><b>Mouse anti Human C3a Receptor antibody, clone hC3aRZ1</b> recognizes the receptor for human complement component C3a (C3aR), a ~55 kDa cell surface protein of the rhodopsin family of G protein-coupled seven-transmembrane receptors. C3a is an anaphylatoxin, which is a potent proinflammatory mediator that possesses immunoregulatory properties. C3a regulates inflammatory functions by binding to the C3a receptor. C3aR is expressed on various tissues and leucocytes including basophils, neutrophils, mast cells, eosinophils and activated T lymphocytes.</p> <p>Expression levels of C3aR on human cells varies significantly between donors.</p>   |
| <b>Flow Cytometry</b>          | Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.  |
| <b>References</b>              | <ol style="list-style-type: none"> <li>Werfel, T. <i>et al.</i> (2000) Activated human T lymphocytes express a functional C3a receptor. <a href="#">J Immunol. 165 (11): 6599-605.</a></li> <li>Kacani, L. <i>et al.</i> (2001) C5a and C5a(desArg) enhance the susceptibility of monocyte-derived macrophages to HIV infection. <a href="#">J Immunol. 166: 3410-5.</a></li> <li>Soruri, A. <i>et al.</i> (2003) IL-4 down-regulates anaphylatoxin receptors in monocytes and dendritic cells and impairs anaphylatoxin-induced migration <i>in vivo</i>. <a href="#">J Immunol. 170 (6): 3306-14.</a></li> <li>Raby, A.C. <i>et al.</i> (2009) Soluble TLR2 reduces inflammation without compromising bacterial clearance by disrupting TLR2 triggering. <a href="#">J Immunol. 183 (1): 506-17.</a></li> <li>Schreiber, A. <i>et al.</i> (2009) C5a receptor mediates neutrophil activation and ANCA-induced glomerulonephritis. <a href="#">J Am Soc Nephrol. 20: 289-98.</a></li> <li>Martel, C. <i>et al.</i> (2011) Requirements for membrane attack complex formation and anaphylatoxins binding to collagen-activated platelets. <a href="#">PLoS One. 6: e18812.</a></li> <li>Török K (2012) Human T cell derived, cell-bound complement iC3b is integrally involved in T cell activation. <a href="#">Immunol Lett. 143: 131-6.</a></li> <li>Patzelt, J. <i>et al.</i> (2015) Expression of anaphylatoxin receptors on platelets in patients with coronary heart disease. <a href="#">Atherosclerosis. 238 (2): 289-95.</a></li> <li>Hengartner, N.E. <i>et al.</i> (2015) Crucial Role of IL1beta and C3a in the <i>In Vitro</i>-Response of Multipotent Mesenchymal Stromal Cells to Inflammatory Mediators of Polytrauma. <a href="#">PLoS One. 10: e0116772.</a></li> </ol> |

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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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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2455A647>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

### Recommended Useful Reagents

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

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

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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