

## Datasheet: MCA2455A647

<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 G 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>	<b>UniProt:</b> <a href="#">Q16581</a> <a href="#">Related reagents</a>		

**Entrez Gene:**

[719](#) C3AR1 [Related reagents](#)

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<b>Synonyms</b>	AZ3B, C3R1, HNFAG09
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<b>Fusion Partners</b>	Cells from immunised BALB/c mice were fused with cells of the X63-Ag8.653 myeloma cell line.
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<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>
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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
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<b>References</b>	<ol style="list-style-type: none"><li>1. 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>2. 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>3. Zwirner, J. <i>et al.</i> (1999) Evaluation of C3a receptor expression on human leucocytes by the use of novel monoclonal antibodies. <a href="#">Immunology. 97: 166-72.</a></li><li>4. 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>5. 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: 506-17.</a></li><li>6. 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>7. 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><li>8. 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>9. 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>10. 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>11. 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></ol>
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<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. This product is photosensitive and should be protected from light.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
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<b>Shelf Life</b>	18 months from date of despatch.
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<b>Acknowledgements</b>	This product is provided under an intellectual property licence from Life Technologies Corporation.
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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 IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

### Recommended Useful Reagents

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

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

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