

Datasheet: MCA2455GA

Description:	MOUSE ANTI HUMAN C3a RECEPTOR
Specificity:	C3a RECEPTOR
Other names:	COMPLEMENT COMPONENT 3a RECEPTOR 1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	hC3aRZ1
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			1/10 - 1/20
Immunohistology - Frozen	■			
Immunohistology - Paraffin			■	
ELISA			■	
Immunoprecipitation			■	
Western Blotting			■	

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
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Recombinant human C3aR protein.

**External Database
Links**

UniProt:

[Q16581](#) [Related reagents](#)

Entrez Gene:

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

Synonyms

AZ3B, C3R1, HNFAG09

Fusion Partners

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

Specificity

Mouse anti Human C3a Receptor antibody, clone hC3aRZ1 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.

Expression levels of C3aR on human cells varies significantly between donors.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.

References

1. Werfel, T. *et al.* (2000) Activated human T lymphocytes express a functional C3a receptor. [J Immunol. 165 \(11\): 6599-605.](#)
2. Soruri, A. *et al.* (2003) IL-4 down-regulates anaphylatoxin receptors in monocytes and dendritic cells and impairs anaphylatoxin-induced migration *in vivo*. [J Immunol. 170 \(6\): 3306-14.](#)
3. Zwirner, J. *et al.* (1999) Evaluation of C3a receptor expression on human leucocytes by the use of novel monoclonal antibodies. [Immunology. 97: 166-72.](#)
4. Kacani, L. *et al.* (2001) C5a and C5a(desArg) enhance the susceptibility of monocyte-derived macrophages to HIV infection. [J Immunol. 166: 3410-5.](#)
5. Raby, A.C. *et al.* (2009) Soluble TLR2 reduces inflammation without compromising bacterial clearance by disrupting TLR2 triggering. [J Immunol. 183: 506-17.](#)
6. Martel, C. *et al.* (2011) Requirements for membrane attack complex formation and anaphylatoxins binding to collagen-activated platelets. [PLoS One. 6: e18812.](#)
7. Hengartner, N.E. *et al.* (2015) Crucial Role of IL1beta and C3a in the *In Vitro*-Response of Multipotent Mesenchymal Stromal Cells to Inflammatory Mediators of Polytrauma. [PLoS One. 10: e0116772.](#)
8. Schreiber, A. *et al.* (2009) C5a receptor mediates neutrophil activation and ANCA-induced glomerulonephritis. [J Am Soc Nephrol. 20: 289-98.](#)
9. Török K (2012) Human T cell derived, cell-bound complement iC3b is integrally involved in T cell activation. [Immunol Lett. 143: 131-6.](#)
10. Patzelt, J. *et al.* (2015) Expression of anaphylatoxin receptors on platelets in patients with coronary heart disease. [Atherosclerosis. 238 \(2\): 289-95.](#)
11. Raby, A.C. *et al.* (2009) Soluble TLR2 reduces inflammation without compromising bacterial clearance by disrupting TLR2 triggering. [J Immunol. 183 \(1\): 506-17.](#)

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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