

Datasheet: MCA2059PE

BATCH NUMBER INN1611

Description:	MOUSE ANTI HUMAN CD88:RPE
Specificity:	CD88
Other names:	C5aR
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	P12/1
Isotype:	IgG2a
Quantity:	100 TESTS

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	▪			Neat

Where this product 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 product 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 R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 1.0 ml distilled water

Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578

Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin 5% Sucrose
Immunogen	C5aR - peptide: Met ₁ - Asn ₃₁
External Database Links	<p>UniProt: P21730 Related reagents</p> <p>Entrez Gene: 728 C5AR1 Related reagents</p>
Synonyms	C5AR, C5R1
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63 - Ag8 myeloma cell line.
Specificity	<p>Mouse anti Human CD88 antibody, clone P12/1 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 (Werfel et al. 1996 and Weinman et al. 2003)</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood
References	<ol style="list-style-type: none"> 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. J Immunol. 157: 1729-35. 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. 3. Pollok-Kopp B <i>et al.</i> (2007) Dynamics of protein kinase C-mediated phosphorylation of the complement C5a receptor on serine 334. J Biol Chem. 282 (7): 4345-53. 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. 5. Oppermann, M. (1995) Cluster report: (C5a receptor). In: Schlossman, S.F. (ed.) Leucocyte Typing V. OUP: 953-4. 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. J Biol Chem. 280: 37503-15. 7. Huber-Lang, M. <i>et al.</i> (2005) Changes in the novel orphan, C5a receptor (C5L2), during 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.](#)
10. Nitta, H. *et al.* (2013) Enhancement of human cancer cell motility and invasiveness by anaphylatoxin C5a via aberrantly expressed C5a receptor (CD88). [Clin Cancer Res. 19 \(8\): 2004-13.](#)
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 Panton–Valentine Leucocidin and Gamma Haemolysin Target and Lyse Mature Bone Marrow Leucocytes. [Toxins. 12 \(11\): 725.](#)

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.](#)

Storage

Prior to reconstitution store at +4°C.
 After reconstitution store at +4°C.
 DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2059PE>
 20487

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:RPE \(MCA929PE\)](#)

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

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

'M375411:210104'

Printed on 21 Feb 2024

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)