

Datasheet: MCA2059

BATCH NUMBER 154487

Description:	MOUSE ANTI HUMAN CD88
Specificity:	CD88
Other names:	C5aR
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	P12/1
Isotype:	IgG2a
Quantity:	0.2 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	▪			1/50 - 1/100
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
Species Cross Reactivity	<p>Reacts with: Rhesus Monkey</p> <p>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.</p>
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 mg/ml

Immunogen C5aR - peptide: Met₁ - Asn₃₁

External Database Links

UniProt:
[P21730](#) [Related reagents](#)

Entrez Gene:
[728](#) C5AR1 [Related reagents](#)

Synonyms C5AR, C5R1

RRID AB_566906

Fusion Partners Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63 - Ag8 myeloma cell line.

Specificity **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.

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](#))

Flow Cytometry Use 10ul of the suggested working dilution to label 5 x 10⁵ cells in 100ul.

References

1. Werfel, T. *et al.* (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. *et al.* (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 *et al.* (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. *et al.* (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. *et al.* (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. *et al.* (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

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

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

Health And Safety

Material Safety Datasheet documentation #10040 available at:

Information <https://www.bio-rad-antibodies.com/SDS/MCA2059>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

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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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)
'M366113:200529'

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