

## Datasheet: MCA1283

<b>Description:</b>	MOUSE ANTI HUMAN CD88
<b>Specificity:</b>	CD88
<b>Other names:</b>	C5aR
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	S5/1
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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](http://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	■			
Functional Assays (1)	■			

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.

(1) **Bio-Rad recommend the use of [MCA1283EL](#) for functional studies.**

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	Reacts with: Rabbit, Bovine, Ferret, Mink Based on sequence similarity, is expected to react with: Mustelid <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	C5aR - peptide: Met1 - Asn31.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P21730</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">728</a>   C5AR1   <a href="#">Related reagents</a></p>
<b>Synonyms</b>	C5AR, C5R1
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the X63-Ag8 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD88 antibody, clone S5/1</b> recognizes the C5a receptor (C5aR) CD88, which is predominantly expressed on cells of the myeloid lineage. Clone S5/1 was raised against a synthetic peptide comprising the N-terminal extracellular domain of the C5aR (met1-Asn31) and has recently been shown to recognise the heptameric peptide (D15DKDTLD21).</p> <p>Clone S5/1 has been shown to inhibit the binding of C5a to its receptor.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $5 \times 10^5$ cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Oppermann, M. <i>et al.</i> (1993) Probing the human receptor for C5a anaphylatoxin with site-directed antibodies. Identification of a potential ligand binding site on the NH2-terminal domain. <a href="#">J Immunol. 151: 3785-94.</a></li> <li>2. Oppermann, 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. O.U.P. pp 955-956.</li> <li>3. 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. <a href="#">J Immunol. 157 (4): 1729-35.</a></li> <li>4. Oppermann, M. &amp; Götze, O. (1994) Plasma clearance of the human C5a anaphylatoxin by binding to leucocyte C5a receptors. <a href="#">Immunology. 82 (4): 516-21.</a></li> <li>5. Martel, C.J. &amp; Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. <a href="#">Vet Immunol Immunopathol. 132:109-15.</a></li> <li>6. Sopp, P. <i>et al.</i> (2007) Cross-reactivity of mAbs to human CD antigens with cells from cattle. <a href="#">Vet Immunol Immunopathol. 119: 106-14.</a></li> <li>7. Camous, L. <i>et al.</i> (2011) Complement alternative pathway acts as a positive feedback amplification of neutrophil activation. <a href="#">Blood. 117: 1340-9.</a></li> <li>8. Corrales, L. <i>et al.</i> (2012) Anaphylatoxin C5a Creates a Favorable Microenvironment for Lung Cancer Progression. <a href="#">J Immunol. 189: 4674-83.</a></li> <li>9. 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. <a href="#">J Biol Chem. 280: 37503-15.</a></li> <li>10. Sumichika, H. <i>et al.</i> (2002) Identification of a potent and orally active non-peptide C5a receptor antagonist. <a href="#">J Biol Chem. 277: 49403-7.</a></li> <li>11. Thivierge, M. <i>et al.</i> (1999) Modulation of formyl peptide receptor expression by IL-10 in human monocytes and neutrophils. <a href="#">J Immunol. 162: 3590-5.</a></li> <li>12. 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>13. Eglite, S. <i>et al.</i> (2000) Requirements for C5a receptor-mediated IL-4 and IL-13 production and</li> </ol>

- leukotriene C4 generation in human basophils. [J Immunol. 165: 2183-9.](#)
14. Conroy, A. *et al.* (2009) C5a enhances dysregulated inflammatory and angiogenic responses to malaria in vitro: potential implications for placental malaria. [PLoS One. 4: e4953.](#)
15. Kraft, K. *et al.* (2001) Characterization of sequence determinants within the carboxyl-terminal domain of chemokine receptor CCR5 that regulate signaling and receptor internalization. [J Biol Chem. 276: 34408-18.](#)
16. Fukuoka, Y. *et al.* (2008) Generation of anaphylatoxins by human beta-tryptase from C3, C4, and C5. [J Immunol. 180: 6307-16.](#)
17. Aasted, B. and Viuff, B. (2007) Reactivity of monoclonal antibodies to human CD antigens with cells from mink. [Vet Immunol Immunopathol. 119: 27-37.](#)
18. Huang, L. *et al.* (2005) Discovery of human antibodies against the C5aR target using phage display technology. [J Mol Recognit. 18: 327-33.](#)
19. Tseng CW *et al.* (2015) Increased Susceptibility of Humanized NSG Mice to Panton-Valentine Leukocidin and *Staphylococcus aureus* Skin Infection. [PLoS Pathog. 11 \(11\): e1005292.](#)
20. Bettoni, S. *et al.* (2017) Interaction between Multimeric von Willebrand Factor and Complement: A Fresh Look to the Pathophysiology of Microvascular Thrombosis. [J Immunol. 199 \(3\): 1021-40.](#)

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#### 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.

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#### Shelf Life

18 months from date of despatch.

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#### Health And Safety Information

Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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#### Regulatory

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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|---|---|
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a>  |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight@488</a> , <a href="#">DyLight@549</a> ,<br><a href="#">DyLight@649</a> , <a href="#">DyLight@680</a> , <a href="#">DyLight@800</a> ,<br><a href="#">FITC</a> , <a href="#">HRP</a> |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>  |
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>   |
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>  |
| Rabbit Anti Mouse IgG (STAR8...)        | <a href="#">DyLight@800</a>   |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>  |
| Human Anti Mouse IgG2a (HCA037...)      | <a href="#">FITC</a> , <a href="#">HRP</a>  |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>   |

### Recommended Negative Controls

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

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