

# Datasheet: MCA1283T

**BATCH NUMBER 166157**

|                      |                       |
|----------------------|-----------------------|
| <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>     | 25 µg                 |

## 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 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.

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

|                                 |   |
|---------------------------------|---|
| <b>Target Species</b>           | Human   |
| <b>Species Cross Reactivity</b> | <p>Reacts with: Rabbit, Bovine, Ferret, Mink</p> <p>Based on sequence similarity, is expected to react with: Mustelid</p> <p><b>N.B.</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> |

|                                       |   |
|---------------------------------------|---|
| <b>Product Form</b>                   | Purified IgG - liquid   |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant   |
| <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><br/> <a href="#">P21730</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">728</a>   C5AR1   <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                       | C5AR, C5R1  |
| <b>RRID</b>                           | AB_1102422  |
| <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 10µl of the suggested working dilution to label 5 x 10 <sup>5</sup> cells in 100µl  |
| <b>References</b>                     | <ol style="list-style-type: none"> <li>1. 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>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> </ol> |

4. Thivierge, M. *et al.* (1999) Modulation of formyl peptide receptor expression by IL-10 in human monocytes and neutrophils. [J Immunol. 162: 3590-5.](#)
5. Eglite, S. *et al.* (2000) Requirements for C5a receptor-mediated IL-4 and IL-13 production and leukotriene C4 generation in human basophils. [J Immunol. 165: 2183-9.](#)
6. 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.](#)
7. Sumichika, H. *et al.* (2002) Identification of a potent and orally active non-peptide C5a receptor antagonist. [J Biol Chem. 277: 49403-7.](#)
8. Huang, L. *et al.* (2005) Discovery of human antibodies against the C5aR target using phage display technology. [J Mol Recognit. 18: 327-33.](#)
9. 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.](#)
10. Aasted, B. and Viuff, B. (2007) Reactivity of monoclonal antibodies to human CD antigens with cells from mink. [Vet Immunol Immunopathol. 119: 27-37.](#)
11. Sopp, P. *et al.* (2007) Cross-reactivity of mAbs to human CD antigens with cells from cattle. [Vet Immunol Immunopathol. 119: 106-14.](#)
12. Fukuoka, Y. *et al.* (2008) Generation of anaphylatoxins by human beta-tryptase from C3, C4, and C5. [J Immunol. 180: 6307-16.](#)
13. Schreiber, A. *et al.* (2009) C5a receptor mediates neutrophil activation and ANCA-induced glomerulonephritis. [J Am Soc Nephrol. 20: 289-98.](#)
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. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. [Vet Immunol Immunopathol. 132:109-15.](#)
16. Camous, L. *et al.* (2011) Complement alternative pathway acts as a positive feedback amplification of neutrophil activation. [Blood. 117: 1340-9.](#)
17. Corrales, L. *et al.* (2012) Anaphylatoxin C5a Creates a Favorable Microenvironment for Lung Cancer Progression. [J Immunol. 189: 4674-83.](#)
18. 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.](#)
19. 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.](#)
20. Tromp, A.T. *et al.* (2020) Host-Receptor Post-Translational Modifications Refine Staphylococcal Leukocidin Cytotoxicity. [Toxins \(Basel\). 12 \(2\): 106.](#)
21. He, J. *et al.* (2023) TPST2-mediated receptor tyrosine sulfation enhances leukocidin cytotoxicity and *S. aureus* infection. [Front Immunol. 14: 1242330.](#)

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#### Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in

frost-free freezers is not recommended.

|                                      |  |
|--------------------------------------|--|
| <b>Guarantee</b>                     | 12 months from date of despatch  |
| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br><a href="https://www.bio-rad-antibodies.com/SDS/MCA1283T">https://www.bio-rad-antibodies.com/SDS/MCA1283T</a><br>10040 |
| <b>Regulatory</b>                    | For research purposes only   |

## Related Products

### Recommended Secondary Antibodies

|   |   |
|---|---|
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">HRP</a>   |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>   |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>   |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>  |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> ,<br><a href="#">DyLight®650</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>   |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>  |

### Recommended Negative Controls

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

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <b>North &amp; South America</b> | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a> | <b>Worldwide</b> | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a> | <b>Europe</b> | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a> |
|----------------------------------|---|------------------|---|---------------|---|

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)  
'M409061:221017'

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