Datasheet: MCA2457PET

Description:	RAT ANTI MOUSE CD88:RPE
Specificity:	CD88
Other names:	C5aR
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	20/70
Isotype:	IgG2b
Quantity:	25 TESTS

Product Details

RRID AB_2067284

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 - 1/10

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 Mouse

Product Form Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution Reconstitute in 0.25 ml disilled water

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

Buffer Solution Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin
5% Sucrose

Immunogen RBL-2H3 transfected cells expressing murine C5aR.

External Database

UniProt:

Links	P30993 Related reagents **Entrez Gene:** 12273 C5ar1 Related reagents
Synonyms	C5ar, C5r1
Fusion Partners	Cells from immunised Lou/c were fused with cells of the X63-Ag8.653 myeloma cell line.
Specificity	**Rat anti Mouse CD88 antibody, clone 2070** recognizes murine CD88, also known as C5a anaphylatoxin chemotactic receptor 1 (C5aR1), a member of the G-protein coupled receptor 1 family. CD88 is a ~45 kDa multi pass membrane protein and functions as a receptor for the complement component C5a, a potent proinflammatory molecule and a chemoattractant for neutrophils to sites of infection. In mouse, CD88 is expressed on granulocytes, monocytes and macrophages but not on resting or stimulated lymphocytes. Clone 20/70 has been reported to block the binding of the C5a to murine CD88, (Soruri *et al.* 2003).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B).
References	1. Soruri, A. *et al.* (2003) Characterization of C5aR expression on murine myeloid and lymphoid cells by the use of a novel monoclonal antibody. Immunol Lett. 88 (1): 47-52. 2. Godau, J. *et al.* (2004) C5a initiates the inflammatory cascade in immune complex peritonitis. J Immunol. 173 (5): 3437-45. 3. Baelder, R. *et al.* (2005) Pharmacological targeting of anaphylatoxin receptors during the effector phase of allergic asthma suppresses airway hyperresponsiveness and airway inflammation. J Immunol. 174 (2): 783-9. 4. Rittirsch, D. *et al.* (2008) Functional roles for C5a receptors in sepsis. Nat Med. 14: 551-7. 5. Shushakova, N. (2002) C5a anaphylatoxin is a major regulator of activating versus inhibitory FcgammaRs in immune complex-induced lung disease. J Clin Invest. 110: 1823-30. 6. Wang, R. *et al.* (2013) Disruption of the Complement Anaphylatoxin Receptor C5L2 Exacerbates Inflammation in Allergic Contact Dermatitis. J Immunol. 191: 4001-9. 7. Karsten, C.M. *et al.* (2015) Monitoring and cell-specific deletion of C5aR1 using a novel floxed GFP-C5aR1 reporter knock-in mouse. J Immunol. 194 (4): 1841-55. 8. Uenoyama, A. *et al.* (2016) Effects of C-xylopyranoside derivative on epithelial regeneration in an in vitro 3D oral mucosa model. Biosci Biotechnol Biochem. 11: 1-12. 9. Wang R *et al.* (2016) C5L2, the Second C5a Anaphylatoxin Receptor Suppresses Lipopolysaccharide-induced Acute Lung Injury. Am J Respir Cell Mol Biol. Jun 10. [Epub ahead of print] 10. Ender F *et al.* (2017) Differential regulation of C5a receptor 1 in innate immune cells during the allergic asthma effector phase. PLoS One. 12 (2): e0172446. 11. Fusakio, M.E. *et al.* (2011) C5a regulates NKT and NK cell functions in sepsis. J Immunol. 187 (11): 5805-12.
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life	12 months from date of reconstitution.
Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
Regulatory	For research purposes only

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