

Datasheet: MCA2457EL

Description:	RAT ANTI MOUSE CD88:Low Endotoxin
Specificity:	CD88
Other names:	C5aR
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	20/70
Isotype:	lgG2b
Quantity:	0.5 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 - 1/200
Immunohistology - Frozen		•		
Immunohistology - Paraffin			•	
ELISA			•	
Immunoprecipitation			•	
Western Blotting				
Functional Assays	-			

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 - liquid	
Preparation	Purified IgG prepared by affinity chromatography on Protein G from	tissue culture supernatant
Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	None present	
Carrier Free	Yes	
Endotoxin Level	<0.01 EU/ug	
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml	

Immunogen

RBL-2H3 transfected cells expressing murine C5aR.

External Database Links

UniProt:

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 10⁶ cells in 100ul.

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. <u>J. Immunol.</u> 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. <u>J. Immunol. 174 (2): 783-9.</u>
- 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. <u>J Clin Invest. 110: 1823-30.</u>
- 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. <u>Biosci Biotechnol Biochem.</u> 11: 1-12.
- 9. Wang R *et al.* (2016) C5L2, the Second C5a Anaphylatoxin Receptor Suppresses Lipopolysaccharide-induced Acute Lung Injury. <u>Am J Respir Cell Mol Biol. Jun 10. [Epub ahead of print]</u>
- 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. <u>J Immunol. 187</u> (11): 5805-12.

Storage

Store at -20°C only.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before

use.

Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: 10162: https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...) DyLight®800

Goat Anti Rat IgG (STAR73...)

Rabbit Anti Rat IgG (STAR21...)

Rabbit Anti Rat IgG (STAR17...)

FITC

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) <u>DyLight®649</u>, <u>DyLight®800</u>

Goat Anti Rat IgG (STAR69...) FITC
Goat Anti Rat IgG (STAR72...) HRP

Goat Anti Rat IgG (STAR131...) Alk. Phos., Biotin

North & South Tel: +1 800 265 7376 Worldwide Tel: +44 (0)1865 852 700 Europe Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

'M329135:180731'

Printed on 31 Jul 2018

© 2018 Bio-Rad Laboratories Inc | Legal | Imprint