

# Datasheet: MCA756PE **BATCH NUMBER 166588**

Description:	MOUSE ANTI HUMAN CD64:RPE
Specificity:	CD64
Other names:	FcRI
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	10.1
Isotype:	lgG1
Quantity:	100 TESTS

# **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.biorad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	-			Neat - 1/10

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.

Target Species	Human
Species Cross Reactivity	Reacts with: Baboon, Cynomolgus monkey, Rhesus Monkey  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.

Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1.	0 ml distilled 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 A from tissue culture

# supernatant

Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide
Stabilisers	1% Bovine Serum Albumin
	5% Sucrose
Immunogen	Human monocytes
External Database	
Links	UniProt:
	P12314 Related reagents
	Entrez Gene:
	2209 FCGR1A Related reagents
Synonyms	FCG1, FCGR1, IGFR1
RRID	AB_321800
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0-Ag14 myeloma cell line
Specificity	<b>Mouse anti Human CD64 antibody, clone 10.1</b> recognizes the human CD64 cell surface antigen, a ~75 kDa glycoprotein expressed by monocytes. The antigen acts as a high affinity receptor for human IgG, and is also known as FcRI.
	Mouse anti Human CD64 antibody, clone 10.1 blocks binding of immunoglobulin to FcRI.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
References	1. Scheinecker, C. <i>et al.</i> (1998) Initiation of the autologous mixed lymphocyte reaction requires the expression of costimulatory molecules B7-1 and B7-2 on human peripheral blood dendritic cells. <u>J Immunol. 161: 3966-73.</u>
	2. Fadlon,. E. et al. (1998) Blood polymorphonuclear leukocytes from the majority of sickle
	cell patients in the crisis phase of the disease show enhanced adhesion to vascular
	endothelium and increased expression of CD64. <u>Blood. 91: 266-74.</u>
	3. Navarro-López, F. <i>et al.</i> (2003) Late T-lymphocyte and monocyte activation in coronary
	restenosis. Evidence for a persistent inflammatory/immune mechanism? Rev Esp Cardiol. 56: 465-72.
	4. Beekman, J.M. <i>et al.</i> (2004) Direct interaction between FcgammaRI (CD64) and
	periplakin controls receptor endocytosis and ligand binding capacity. Proc Natl Acad Sci U
	S A.101: 10392-7.  5. Kahn, F. <i>et al.</i> (2008) Antibodies against a surface protein of
	Streptococcus pyogenes promote a pathological inflammatory response. PLoS Pathog. 4
	(9): e1000149.
	6. Wagner, C. et al. (2008) T lymphocytes in acute bacterial infection: increased

prevalence of CD11b(+) cells in the peripheral blood and recruitment to the infected site. Immunology. 125: 503-9.

- 7. Eisenhardt, S.U. *et al.* (2009) Dissociation of pentameric to monomeric C-reactive protein on activated platelets localizes inflammation to atherosclerotic plaques. <u>Circ Res.</u> 105: 128-37.
- 8. Tanaka, M. *et al.* (2009) Activation of Fc gamma RI on monocytes triggers differentiation into immature dendritic cells that induce autoreactive T cell responses. <u>J Immunol.</u> 183: 2349-55.
- 9. Liu M *et al.* (2011) Vitellogenin mediates phagocytosis through interaction with FcγR. Mol Immunol. 49 (1-2): 211-8.
- 10. Fet, N.G. *et al.* (2012) Reduction of activated macrophages after ischaemia-reperfusion injury diminishes oxidative stress and ameliorates renal damage. Nephrol Dial Transplant. 27 (8): 3149-55.
- 11. Kapelski S *et al.* (2014) Assessment of the neutrophilic antibody-dependent respiratory burst (ADRB) response to *Plasmodium falciparum*. <u>J Leukoc Biol. 96 (6): 1131-42.</u>
- 12. Hristodorov, D. *et al.* (2016) Fully human MAP-fusion protein selectively targets and eliminates proliferating CD64(+) M1 macrophages. Immunol Cell Biol. 94 (5): 470-8.
- 13. Loi, A.L.T. *et al.* (2017) Proteomic profiling of peripheral blood neutrophils identifies two inflammatory phenotypes in stable COPD patients. Respir Res. 18 (1): 100.
- 14. Rahabi, M. *et al.* (2020) Divergent Roles for Macrophage C-type Lectin Receptors, Dectin-1 and Mannose Receptors, in the Intestinal Inflammatory Response. <u>Cell Rep. 30</u> (13): 4386-98.e5.

#### Storage

Prior to reconstitution store at +4°C. Following reconstitution 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.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA756PE">https://www.bio-rad-antibodies.com/SDS/MCA756PE</a> 20487
Regulatory	For research purposes only

# Related Products

## **Recommended Negative Controls**

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

# **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B) 
 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

Fax: +1 919 878 3751 Fax: +44 (0)1865 852 739 Fax: +49 (0) 89 8090 95 50 To
Email: antibody\_sales\_us@bio-rad.com Email: antibody\_sales\_uk@bio-rad.com Email: antibody\_sales\_de@bio-rad.com a

batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M422270:230905'

### Printed on 29 Apr 2024

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