

Datasheet: MCA756G

BATCH NUMBER 1706

Description:	MOUSE ANTI HUMAN CD64
Specificity:	CD64
Other names:	FcRI
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	10.1
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/50 - 1/100
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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	Human
Species Cross Reactivity	<p>Reacts with: Baboon, Cynomolgus monkey, Rhesus Monkey</p> <p>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.</p>
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 0.09% Sodium Azide

Carrier Free Yes

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen Human monocytes.

External Database Links

UniProt:

[P12314](#) [Related reagents](#)

Entrez Gene:

[2209](#) FCGR1A [Related reagents](#)

Synonyms FCG1, FCGR1, IGFR1

RRID AB_322931

Fusion Partners Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0-Ag14 myeloma cell line.

Specificity **Mouse anti Human CD64 antibody, clone 10.1** 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 10^6 cells in 100ul.

References

1. Dougherty, G.J. *et al.* (1987) The human mononuclear phagocyte high-affinity Fc receptor, FcRI, defined by a monoclonal antibody, 10.1. [Eur J Immunol. 17 \(10\): 1453-9.](#)
2. Beekman, J.M. *et al.* (2004) Direct interaction between FcγRI (CD64) and periplakin controls receptor endocytosis and ligand binding capacity. [Proc Natl Acad Sci U S A.101: 10392-7.](#)
3. Tanaka, M. *et al.* (2009) Activation of Fc gamma RI on monocytes triggers differentiation into immature dendritic cells that induce autoreactive T cell responses. [J Immunol. 183: 2349-55.](#)
4. 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.](#)
5. 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.](#)

6. Eisenhardt, S.U. *et al.* (2009) Dissociation of pentameric to monomeric C-reactive protein on activated platelets localizes inflammation to atherosclerotic plaques. [Circ Res. 105: 128-37.](#)
7. 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. [Blood. 91: 266-74.](#)
8. Scheinecker, C. *et al.* (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. [J Immunol. 161: 3966-73.](#)
9. Navarro-López, F. *et al.* (2003) Late T-lymphocyte and monocyte activation in coronary restenosis. Evidence for a persistent inflammatory/immune mechanism? [Rev Esp Cardiol. 56: 465-72.](#)
10. Liu M *et al.* (2011) Vitellogenin mediates phagocytosis through interaction with FcγR. [Mol Immunol. 49 \(1-2\): 211-8.](#)
11. Kapelski S *et al.* (2014) Assessment of the neutrophilic antibody-dependent respiratory burst (ADRB) response to *Plasmodium falciparum*. [J Leukoc Biol. 96 \(6\): 1131-42.](#)
12. 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.](#)
13. 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.](#)
14. Kahn, F. *et al.* (2008) Antibodies against a surface protein of *Streptococcus pyogenes* promote a pathological inflammatory response. [PLoS Pathog. 4 \(9\): e1000149.](#)

Further Reading	1. Yoshino, N. <i>et al.</i> (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of Cynomolgus monkeys (<i>Macaca fascicularis</i>) by using anti-human cross-reactive antibodies. Exp Anim. 49 (2): 97-110.
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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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Guarantee	18 months from date of despatch.
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Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA756G 10040
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 , FITC , HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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