Datasheet: MCA5997

BATCH NUMBER 161018

Description:	RAT ANTI MOUSE CD64
Specificity:	CD64
Other names:	FcRI
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AT152-9
Isotype:	IgG2a
Quantity:	0.25 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	▪			1/10
Immunohistology - Frozen	▪			1/1000

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	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by ion exchange chromatography from tissue culture supernatant
Buffer Solution	TRIS buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	HEK293F cells expressing CD64 and gamma chain

External Database Links	**UniProt:** P26151 Related reagents **Entrez Gene:** 14129 Fcgr1 Related reagents
Synonyms	Fcg1
RRID	AB_2687456
Fusion Partners	Spleen cells from immunised rats were fused with cells of the NS-1 myeloma cell line
Specificity	**Rat anti mouse CD64 antibody, clone AT152-9,** recognizes mouse CD64 also known as FcRI. CD64 is a high affinity activatory receptor for IgG2a and a low affinity receptor for IgG2b and IgG3 type antibodies. The interaction between Fc receptors and antibodies play important roles in both the innate and adaptive immune responses. CD64, through binding of the Fc segment of IgG, mediates phagocytosis and plays a role in antibody-dependent cellular cytotoxicity and clearance of immune complexes. In addition, CD64 also functions as an antigen capture for presentation to T-cells and also mediates the release of cytokines and reactive oxygen intermediates including interleukin (IL)-1, IL-6 and tumor necrosis factor (TNF) alpha. It is constitutively expressed on monocytes and macrophages, germinal centre dendritic cells and early myeloid lineage cells, but not lymphocytes. Expression on monocytes can be strongly upregulated by treatment with interferon (IFN) gamma or G-CSF, and can be induced on neutrophils and eosinophils by IFN gamma.
Flow Cytometry	Use 10ul of the suggested working dilution to label $1x10^6$ cells in 100ul
References	1. White; A.L. *et al.* (2011) Interaction with FcγRIIB is critical for the agonistic activity of anti-CD40 monoclonal antibody. J Immunol. 187 (4): 1754-63. 2. Tutt AL *et al.* (2015) Development and Characterization of Monoclonal Antibodies Specific for Mouse and Human Fcγ Receptors. J Immunol. 195 (11): 5503-16.
Storage	Store at +4°C or at -20°C if preferred. 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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10057 available at: https://www.bio-rad-antibodies.com/SDS/MCA5997 10057
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550, DyLight®650, DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos., Biotin

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL (MCA1212)

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

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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