

Datasheet: MCA5997F

Description:	RAT ANTI MOUSE CD64:FITC
Specificity:	CD64
Other names:	FcRI
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	AT152-9
Isotype:	IgG2a
Quantity:	0.1 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	▪			Neat

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 conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid						
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
FITC	490	525					
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
Buffer Solution	Phosphate buffered saline						
Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin						
Approx. Protein Concentrations	IgG concentration 0.1 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

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 1×10^6 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.](#)
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Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA5997F>
10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:FITC \(MCA1212F\)](#)

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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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