

Datasheet: MCA2235A647T

## **BATCH NUMBER 151049**

Description:	RAT ANTI MOUSE CD206:Alexa Fluor® 647
Specificity:	CD206
Other names:	MANNOSE RECEPTOR C TYPE 1
Format:	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
Clone:	MR5D3
Isotype:	lgG2a
Quantity:	25 TESTS/0.25ml

# **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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	-			Neat

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 their own system using appropriate negative/positive controls.

(1) CD206 is expressed weakly at the cell surface. Staining may be increased following membrane permeabilisation. Bio-Rad recommends the use of Leucoperm<sup>™</sup> (Product Code BUF09) for this purpose.

Target Species	Mouse		
Product Form	Purified IgG conjug	ated to Alexa Fluor® 64	7 - liquid
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665
Preparation	Purified IgG prepar supernatant	ed by affinity chromatog	raphy on Protein G fi
uffer Solution	Phosphate buffered	d saline	
Preservative	0.09% Sodium Azio	de	

Stabilisers	1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Chimaeric CRD4-7-Fc protein
External Database Links	UniProt:  Q61830 Related reagents
	Entrez Gene:  17533 Mrc1 Related reagents
RRID	AB_2144901
Fusion Partners	Spleen cells from immunised Fischer rats were fused with cells of the Y3 myeloma cell line
Specificity	Rat anti mouse CD206 antibody, clone MR5D3 recognizes the mouse mannose receptor, a ~175 kDa type 1 membrane glycoprotein that is also known as CD206. CD206 is expressed on most tissue macrophages, certain endothelial cells and <i>in vitro</i> derived dendritic cells (Zamze et al. 2002).
	The mannose receptor, CD206, is composed of a N-terminal cysteine-rich domain, a fibronectin type II domain, eight tandemly arranged C-type lectin domains (CTLD), a transmembrane domain, and a cytoplasmic domain. The terminal cysteine-rich domain binds sulfated sugars, and the CTLD recognizes carbohydrates terminating in mannose, fucose and N-acetylglucosamine, all sugars found on microorganisms and on some endogenous proteins (Su et al. 2005).
	Rat anti mouse CD206 antibody, clone MR5D3 has been reported to be non-inhibitory for the binding of the mannose receptor to carbohydrate ligands ( <u>Zamze et al. 2002</u> ). Clone MR5D3 has also been shown to work in western blotting ( <u>Martinez-Pomares et al. 2003</u> and <u>Su et al. 2005</u> ).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
	The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR ( <u>BUF041A/B</u> ).
References	<ol> <li>Martinez-Pomares, L. et al. (2003) Analysis of mannose receptor regulation by IL-4, IL-10, and proteolytic processing using novel monoclonal antibodies. <u>J Leukoc Biol. 73 (5): 604-13.</u></li> <li>Nair, M.G. et al. (2009) Alternatively activated macrophage-derived RELM-{alpha} is a negative regulator of type 2 inflammation in the lung. <u>J Exp Med. 206: 937-52.</u></li> </ol>

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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. This product is photosensitive and should be protected from light.

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

#### **Acknowledgements**

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# Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2235A647T">https://www.bio-rad-antibodies.com/SDS/MCA2235A647T</a> 10041

Regulatory

For research purposes only

## Related Products

## **Recommended Negative Controls**

RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 (MCA1212A647)

#### **Recommended Useful Reagents**

MOUSE SEROBLOCK FcR (BUF041A)
MOUSE SEROBLOCK FcR (BUF041B)

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