Datasheet: MCA2537A488

BATCH NUMBER 152865

Description:	MOUSE ANTI HUMAN CD16:Alexa Fluor® 488		
Specificity:	CD16		
Other names:	FcRIII		
Format:	ALEXA FLUOR® 488		
Product Type:	Monoclonal Antibody		
Clone:	DJ130c		
-			
lsotype:	lgG1		

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 <u>www.bio-rad-antibodies.com/protocols</u> .				
		Yes No	Not Determined	Suggested Dilution	
	Flow Cytometry	•		Neat - 1/5	
	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 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	Reacts with: Macaque				
Reactivity	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 Alexa Fluor®488 - liquid				
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)		
	Alexa Fluor®488	495	519		
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant				

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05mg/ml
External Database Links	UniProt:P08637Related reagentsO75015Related reagentsEntrez Gene:2214FCGR3ARelated reagents2215FCGR3BRelated reagents
Synonyms	CD16A, CD16B, FCG3, FCGR3, IGFR3
RRID	AB_877455
Specificity	Mouse anti Human CD16 antibody, clone DJ130c recognizes human CD16, also known as Low affinity immunoglobulin gamma Fc region receptor III-A or Fc-gamma RIIIa. CD16a is a 254 amino acid ~50-65 kDa single pass type 1 transmembrane glycoprotein bearing two Ig-like C2 type domains. CD16 exists as a transmembranous form (Fc gammaRIIIA, or CD16A) and a glycosyl phosphatidylinositol (GPI) anchored form, Fc gammaRIIIB, or CD16B (Scallon <i>et al.</i> 1989). CD16A is expressed by NK cells, some T cells, and macrophages, whereas CD16B is primarily expressed by granulocytes (Ravetch and Perussia 1989). In addition, CD16B exists as two allelic variants NA1 and NA2 . DJ130c recognizes all polymorphonuclear cells irrespective of their NA phenotype. Mouse anti Human CD16 antibody, clone DJ130c recognizes an epitope in the first membrane-distal domain of CD16, recognizes both CD16a and CD16b and has been demonstrated to cross-react with CD16 from rhesus macaques, <i>Macaca mulatta</i> (Xu <i>et al.</i> 2012)
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
References	 Schmidt, R.E. (1993) CD16 cluster workshop report. In Leucocyte Typing V: White cell differentiation antigens, Vol.1. Edited by Schlossman, S.F. <i>et al.</i> Oxford University Press. p805 – 806. Kakko, T. <i>et al.</i> (2011) Inflammatory effects of blood leukocytes: association with vascular function in neuropeptide Y proline 7-genotyped type 2 diabetes patients. <u>Diab Vasc Dis Res. 8: 221-8.</u> Shantsila, E. <i>et al.</i> (2012) Fibrinolytic status in acute coronary syndromes: evidence of differences in relation to clinical features and pathophysiological pathways. <u>Thromb Haemost. 108: 32-40.</u>

	 Shantsila, E. <i>et al.</i> (2011) Immunophenotypic characterization of human monocyte subsets: possible implications for cardiovascular disease pathophysiology. <u>J Thromb</u> <u>Haemost. 9: 1056-66.</u>
	5. Tapp, L.D. <i>et al.</i> (2012) The CD14++CD16+ monocyte subset and monocyte-platelet interactions in patients with ST-elevation myocardial infarction. <u>J Thromb Haemost. 10:</u> 1231-41.
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	8. Ambarus, C.A. <i>et al.</i> (2012) Soluble immune complexes shift the TLR-induced cytokine production of distinct polarized human macrophage subsets towards IL-10. <u>PLoS One. 7:</u> <u>e35994.</u>
	9. Shantsila, E. <i>et al.</i> (2012) The effects of exercise and diurnal variation on monocyte subsets and monocyte-platelet aggregates. <u>Eur J Clin Invest. 42: 832-9.</u>
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	11. Wrigley, B.J. <i>et al.</i> (2013) Increased formation of monocyte-platelet aggregates in ischemic heart failure. <u>Circ Heart Fail. 6: 127-35.</u>
	12. Jaipersad, A.S. <i>et al.</i> (2014) Expression of monocyte subsets and angiogenic markers in relation to carotid plaque neovascularization in patients with pre-existing coronary artery disease and carotid stenosis. Ann Med. 11: 1-9.
	 13. Shantsila, E. <i>et al.</i> (2015) Free Light Chains in patients with acute coronary syndromes: Relationships to inflammation and renal function. <u>Int J Cardiol. 185: 322-7.</u> 14. Wrigley, B.J. <i>et al.</i> (2013) Increased formation of monocyte-platelet aggregates in ischemic heart failure. <u>Circ Heart Fail. 6 (1): 127-35.</u>
	 15. Romee R <i>et al.</i> (2013) NK cell CD16 surface expression and function is regulated by a disintegrin and metalloprotease-17 (ADAM17). <u>Blood. 121 (18): 3599-608.</u> 16. Sousa, S. <i>et al.</i> (2015) Human breast cancer cells educate macrophages toward the
	M2 activation status. <u>Breast Cancer Res. 17: 101.</u> 17. Shantsila, E. <i>et al.</i> (2019) Mon2 predicts poor outcome in ST-elevation myocardial infarction. <u>J Intern Med. 285 (3): 301-16.</u>
	18. Brown, R.A. <i>et al.</i> (2018) Impact of Mon2 monocyte-platelet aggregates on human coronary artery disease. <u>Eur J Clin Invest. 48 (5): e12911.</u>
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
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	CA 92008 USA or outlicensing@thermofisher.com		
Health And Safety	Material Safety Datasheet documentation #10041 available at:		
Information	https://www.bio-rad-antibodies.com/SDS/MCA2537A488		
	10041		
Regulatory	For research purposes only		
Related Produ	cts		

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL: Alexa Fluor® 488 (MCA928A488)

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
	Email: antibody_sales_us@bio-ra	ad.com	Email: antibody_sales_uk@bio-ra	ad.com	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 'M367128:200529'

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