

Datasheet: MCA2537A488T

BATCH NUMBER 150018

Description:	MOUSE ANTI HUMAN CD16:Alexa Fluor® 488
Specificity:	CD16
Other names:	FcRIII
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	DJ130c
Isotype:	lgG1
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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	-			

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.

Human				
Reacts with: Macad	que			
reactivity is derived	I from testing within our lacations from the originate	aboratories, peer-reviev	ved publications o	
Purified IgG conjugated to Alexa Fluor®488 - liquid				
Fluorophore	Excitation Max (nm)	Emission Max (nm)		
Alexa Fluor®488	495	519		
	Reacts with: Macade N.B. Antibody react reactivity is derived personal communic further information. Purified IgG conjugnments.	Reacts with: Macaque N.B. Antibody reactivity and working condition reactivity is derived from testing within our lapersonal communications from the originate further information. Purified IgG conjugated to Alexa Fluor®488 Fluorophore Excitation Max (nm)	Reacts with: Macaque N.B. Antibody reactivity and working conditions may vary between reactivity is derived from testing within our laboratories, peer-review personal communications from the originators. Please refer to refer further information. Purified IgG conjugated to Alexa Fluor®488 - liquid Fluorophore Excitation Max (nm) Emission Max (nm)	

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: P08637 Related reagents O75015 Related reagents		
	Entrez Gene: 2214 FCGR3A Related reagents 2215 FCGR3B Related reagents		
Synonyms	CD16A, CD16B, FCG3, FCGR3, IGFR3		
RRID	AB_1100852		
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 Lg-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 et al. 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, *Macaca mulatta* (Xu et al. 2012)

Flow Cytometry

Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul.

References

- 1. Schmidt, R.E. (1993) CD16 cluster workshop report. In Leucocyte Typing V: White cell differentiation antigens, Vol.1. Edited by Schlossman, S.F. *et al.* Oxford University Press. p805 806.
- 2. Kakko, T. *et al.* (2011) Inflammatory effects of blood leukocytes: association with vascular function in neuropeptide Y proline 7-genotyped type 2 diabetes patients. <u>Diab</u> Vasc Dis Res. 8: 221-8.
- 3. Shantsila, E. *et al.* (2012) Fibrinolytic status in acute coronary syndromes: evidence of differences in relation to clinical features and pathophysiological pathways. <u>Thromb Haemost.</u> 108: 32-40.

- 4. Shantsila, E. *et al.* (2011) Immunophenotypic characterization of human monocyte subsets: possible implications for cardiovascular disease pathophysiology. <u>J Thromb</u> Haemost. 9: 1056-66.
- 5. Tapp, L.D. *et al.* (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.
- 6. Ambarus, C.A. *et al.* (2012) Intimal lining layer macrophages but not synovial sublining macrophages display an IL-10 polarized-like phenotype in chronic synovitis. <u>Arthritis Res Ther.</u> 14: R74.
- 7. Ambarus, C.A. *et al.* (2012) Systematic validation of specific phenotypic markers for in vitro polarized human macrophages. J Immunol Methods. 375: 196-206.
- 8. Ambarus, C.A. *et al.* (2012) Soluble immune complexes shift the TLR-induced cytokine production of distinct polarized human macrophage subsets towards IL-10. <u>PLoS One. 7:</u> e35994.
- 9. Shantsila, E. *et al.* (2012) The effects of exercise and diurnal variation on monocyte subsets and monocyte-platelet aggregates. Eur J Clin Invest. 42: 832-9.
- 10. Chehadeh. W. *et al.* (2009) Antibody-mediated opsonization of red blood cells in parvovirus B19 infection. <u>Virology. 390: 56-63.</u>
- 11. Wrigley, B.J. *et al.* (2013) Increased formation of monocyte-platelet aggregates in ischemic heart failure. <u>Circ Heart Fail. 6: 127-35.</u>
- 12. Jaipersad, A.S. *et al.* (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. <u>Ann Med. 11: 1-9.</u>
- 13. Shantsila, E. *et al.* (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. *et al.* (2013) Increased formation of monocyte-platelet aggregates in ischemic heart failure. Circ Heart Fail. 6 (1): 127-35.
- 15. Romee R *et al.* (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. *et al.* (2015) Human breast cancer cells educate macrophages toward the M2 activation status. <u>Breast Cancer Res. 17: 101.</u>
- 17. Shantsila, E. *et al.* (2019) Mon2 predicts poor outcome in ST-elevation myocardial infarction. J Intern Med. 285 (3): 301-16.
- 18. Brown, R.A. *et al.* (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

Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at:

https://www.bio-rad-antibodies.com/SDS/MCA2537A488T

10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

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