

Datasheet: MCA2748F

BATCH NUMBER 1807

Description:	RAT ANTI MOUSE CD36:FITC
Specificity:	CD36
Other names:	GPIV (IIIb)
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	MF3
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						
Buffer Solution	Phosphate buffered saline						
Preservative	0.09% Sodium Azide (NaN ₃)						
Stabilisers	1% Bovine Serum Albumin						
Approx. Protein Concentrations	IgG concentration 0.1mg/ml						

Immunogen IL-4 treated murine thioglycollate-elicited peritoneal macrophages

External Database

Links

UniProt:

[Q08857](#)

[Related reagents](#)

Entrez Gene:

[12491](#)

Cd36

[Related reagents](#)

RRID

AB_1604781

Fusion Partners

Spleen cells from immunised DA rats were fused with cells of the Y3Ag 1.2.3 myeloma cell line

Specificity

Rat anti Mouse CD36 antibody, clone MF3 recognizes mouse CD36, also known as platelet glycoprotein 4, glycoprotein IIIb or PAS IV. CD36 is an ~85 kDa multipass transmembrane glycoprotein primarily expressed on platelets, monocytes/macrophages, smooth muscle and endothelial cells. The CD36 molecule is type B scavenger receptor, which binds to multiple ligands including thrombospondin, anionic phospholipids, oxidized low density lipoproteins and long chain fatty acids.

CD36 has diverse functions and is reported to play a role in innate immunity, platelet adhesion/aggregation and long chain fatty acid transport. The CD36 molecule also directly mediates cytoadhesion of erythrocytes infected with *Plasmodium falciparum*, and may be involved in the development of atherosclerotic lesions and the formation of foam cells.

Rat anti Mouse CD36 antibody, clone MF3 has been shown to inhibit IL-4 induced thioglycollate-elicited peritoneal macrophage fusion and significantly block IL-4/GM-CSF-induced bone-marrow derived macrophage fusion.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.

References

1. Helming, L. *et al.* (2009) The scavenger receptor CD36 plays a role in cytokine-induced macrophage fusion. [J Cell Sci. 122 \(Pt 4\): 453-9.](#)
2. Mwaikambo, B.R. *et al.* (2009) Hypoxia up-regulates CD36 expression and function via hypoxia-inducible factor-1- and phosphatidylinositol 3-kinase-dependent mechanisms. [J Biol Chem. 284: 26695-707.](#)
3. Yang, C.N. *et al.* (2011) Mechanism mediating oligomeric A β clearance by naïve primary microglia. [Neurobiol Dis. 42 \(3\): 221-30.](#)
4. Seeds, R.E. *et al.* (2011) The role of myeloid receptors on murine plasmacytoid dendritic cells in induction of type I interferon. [Int Immunopharmacol. 11: 794-801.](#)
5. Samovski, D. *et al.* (2012) Insulin and AMPK regulate FA translocase/CD36 plasma membrane recruitment in cardiomyocytes via Rab GAP AS160 and Rab8a Rab GTPase. [J Lipid Res. 53 \(4\): 709-17.](#)
6. Zhou, D. *et al.* (2012) CD36 level and trafficking are determinants of lipolysis in adipocytes. [FASEB J. 26 \(11\): 4733-42.](#)
7. Nie, S. *et al.* (2015) Detection of atherosclerotic lesions and intimal macrophages using CD36-targeted nanovesicles. [J Control Release. pii: S0168-3659\(15\)30173-5.](#)

8. Samovski, D. *et al.* (2015) Regulation of AMPK activation by CD36 links fatty acid uptake to β -oxidation. [Diabetes. 64 \(2\): 353-9.](#)
9. Pugholm, L.H. *et al.* (2015) Enhanced Humoral Responses Induced by Targeting of Antigen to Murine Dendritic Cells. [Scand J Immunol. 82 \(6\): 515-22.](#)
10. Miyazaki H *et al.* (2014) Fatty acid binding protein 7 regulates phagocytosis and cytokine production in Kupffer cells during liver injury. [Am J Pathol. 184 \(9\): 2505-15.](#)
11. Sui, Y. *et al.* (2018) Perinatal Bisphenol A Exposure Increases Atherosclerosis in Adult Male PXR-Humanized Mice. [Endocrinology. 159 \(4\): 1595-608.](#)
12. Lund, H. *et al.* (2018) Competitive repopulation of an empty microglial niche yields functionally distinct subsets of microglia-like cells. [Nat Commun. 9 \(1\): 4845.](#)
13. Dellinger, A. *et al.* (2013) Functionalization of gadolinium metallofullerenes for detecting atherosclerotic plaque lesions by cardiovascular magnetic resonance. [J Cardiovasc Magn Reson. 15: 7.](#)

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. 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
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2748F10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

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

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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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](https://www.bio-rad-antibodies.com/datasheets)
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