

## Datasheet: MCA2748A647

<b>Description:</b>	RAT ANTI MOUSE CD36:Alexa Fluor®647
<b>Specificity:</b>	CD36
<b>Other names:</b>	GPIV (IIIb)
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MF3
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	100 TESTS/1ml

### 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](http://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.

<b>Target Species</b>	Mouse		
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor®647- liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®647	650	665
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% Bovine Serum Albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05mg/ml		

Immunogen IL-4 treated murine thioglycollate-elicited peritoneal macrophages

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External Database

Links

UniProt:

[Q08857](#)

[Related reagents](#)

Entrez Gene:

[12491](#)

Cd36

[Related reagents](#)

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RRID

AB\_10673313

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Fusion Partners

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

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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.

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Flow Cytometry

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

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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 $\beta$  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.](#)
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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  $\beta$ -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.](#)

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

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**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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batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

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