

Datasheet: MCA2748EL

**BATCH NUMBER 148976**

<b>Description:</b>	RAT ANTI MOUSE CD36:Low Endotoxin
<b>Specificity:</b>	CD36
<b>Other names:</b>	GPIV (IIIb)
<b>Format:</b>	Low Endotoxin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MF3
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.5 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			
Functional Assays	▪			

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 - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	None present

## Stabilisers

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Carrier Free Yes

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Endotoxin Level < 0.01 EU/ug

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Approx. Protein Concentrations IgG concentration 1.0mg/ml

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Immunogen IL-4 treated murine thioglycollate-elicited peritoneal macrophages

## External Database Links

### UniProt:

[Q08857](#)

[Related reagents](#)

### Entrez Gene:

[12491](#)

Cd36

[Related reagents](#)

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RRID AB\_1604783

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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

## 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 1x10<sup>6</sup> 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.](#)
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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.](#)
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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.](#)
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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.](#)
14. Zhang, J. *et al.* (2019) Anti-atherogenic effects of CD36-targeted epigallocatechin gallate-loaded nanoparticles. [J Control Release. 303: 263-73.](#)
15. Dhanasekara, C.S. *et al.* (2021) Nanoparticles target intimal macrophages in atherosclerotic lesions. [Nanomedicine. 32: 102346.](#)
16. Liu, J. *et al.* (2022) Pregnane X Receptor Mediates Atherosclerosis Induced by Dicyclohexyl Phthalate in LDL Receptor-Deficient Mice [Cells. 11 \(7\): 1125](#)

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**Storage** Store at -20°C.  
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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10162 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2748EL>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...) [DyLight®800](#)  
Rabbit Anti Rat IgG (STAR17...) [FITC](#)

Goat Anti Rat IgG (STAR72...) [HRP](#)  
Goat Anti Rat IgG (STAR69...) [FITC](#)  
Goat Anti Rat IgG (STAR73...) [RPE](#)  
Rabbit Anti Rat IgG (STAR21...) [HRP](#)  
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) [DyLight®550](#), [DyLight®650](#), [DyLight®800](#)  
Goat Anti Rat IgG (STAR131...) [Alk. Phos.](#), [Biotin](#)

## Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Low Endotoxin \(MCA1212EL\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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://bio-rad-antibodies.com/datasheets)

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