

## Datasheet: MCA341GA

<b>Description:</b>	MOUSE ANTI RAT CD68
<b>Specificity:</b>	CD68
<b>Other names:</b>	ED1, MACROSIALIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	ED1
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 mg

## Product Details

**RRID** AB\_566872

### 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 (1)	▪			1/50 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (2)	▪			
ELISA			▪	
Immunoprecipitation	▪			
Immunofluorescence	▪			

Where this antibody 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 antibody for use in their own system using appropriate negative/positive control.

(1) **Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

(2) **This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase**

**Target Species** Rat

**Species Cross Reactivity** Reacts with: Bovine  
Does not react with: Horse  
**N.B.** Antibody reactivity and working conditions may vary between species.

**Product Form** Purified IgG - liquid

**Preparation** Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

**Buffer Solution** Phosphate buffered saline

<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5 mg/ml
<b>Immunogen</b>	Rat spleen cells
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q4FZY1</a> <a href="#">Related reagents</a>
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the SP2/0-Ag14 mouse myeloma cell line.
<b>Specificity</b>	<b>Mouse anti rat CD68, clone ED1</b> recognizes the rat ED1 antigen, a heavily glycosylated protein of ~90 -110 KDa, also known as rat CD68 ( <a href="#">Dijkstra et al. 1985</a> ).  The ED1 antigen is expressed on most macrophages populations, as well as on monocytes and is considered as a pan-macrophage marker in the rat ( <a href="#">Damoiseaux et al. 1994</a> ). ED1 is expressed predominantly on the lysosomal membrane and lightly on the cell surface ( <a href="#">Dijkstra et al. 1985</a> ).  The expression of ED1 antigen being predominantly cytoplasmic ( <a href="#">Dijkstra et al. 1985</a> ), flow cytometry results are improved by the use of a membrane permeabilization procedure, such as <a href="#">Leucoperm</a> , prior to staining.
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>Western Blotting</b>	This clone is suitable for use in western blotting applications. Bio-Rad recommend <a href="#">MCA341R</a> for this purpose.
<b>References</b>	<ol style="list-style-type: none"> <li>Damoiseaux, J.G. <i>et al.</i> (1994) Rat macrophage lysosomal membrane antigen recognized by monoclonal antibody ED1. <a href="#">Immunology. 83 (1): 140-7.</a></li> <li>Bauer, J. <i>et al.</i> (1994) Phagocytic activity of macrophages and microglial cells during the course of acute and chronic relapsing experimental autoimmune encephalomyelitis. <a href="#">J Neurosci Res. 38 (4): 365-75.</a></li> <li>Bao, F. <i>et al.</i> (2004) Early anti-inflammatory treatment reduces lipid peroxidation and protein nitration after spinal cord injury in rats. <a href="#">J Neurochem. 88 (6): 1335-44.</a></li> <li>Zilka, N. <i>et al.</i> (2009) Human misfolded truncated tau protein promotes activation of microglia and leukocyte infiltration in the transgenic rat model of tauopathy. <a href="#">J. Neuroimmunol. 209: 16-25.</a></li> <li>Fujita, E. <i>et al.</i> (2010) Statin attenuates experimental anti-glomerular basement membrane glomerulonephritis together with the augmentation of alternatively activated macrophages. <a href="#">Am J Pathol. 177 (3): 1143-54.</a></li> <li>Salegio, E.A. <i>et al.</i> (2011) Macrophage presence is essential for the regeneration of ascending afferent fibres following a conditioning sciatic nerve lesion in adult rats. <a href="#">BMC Neurosci. 12: 11.</a></li> <li>Wei, X. <i>et al.</i> (2014) Dural fibroblasts play a potential role in headache pathophysiology. <a href="#">Pain. 155: 1238-44.</a></li> <li>Naito, Y. <i>et al.</i> (2011) Dietary iron restriction prevents hypertensive cardiovascular remodeling in dahl salt-sensitive rats. <a href="#">Hypertension. 57: 497-504.</a></li> <li>Baker, S.C. <i>et al.</i> (2011) Cellular integration and vascularisation promoted by a resorbable, particulate-leached, cross-linked poly(ε-caprolactone) scaffold. <a href="#">Macromol Biosci. 11 (5): 618-27.</a></li> </ol>

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**Storage** Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. 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** 18 months from date of despatch.

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@680](#), [DyLight@800](#), [FITC](#), [HRP](#)

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA1209\)](#)

<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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