

## Datasheet: MCA620F

**BATCH NUMBER 170166**

<b>Description:</b>	MOUSE ANTI RAT CD172a:FITC
<b>Specificity:</b>	CD172a
<b>Other names:</b>	SIRP ALPHA
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	ED9
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

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 controls.

<b>Target Species</b>	Rat		
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	FITC	490	525
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% Sodium Azide		
<b>Stabilisers</b>	1% Bovine Serum Albumin		
<b>Approx. Protein</b>	IgG concentration 0.1 mg/ml		

## Concentrations

**Immunogen** Spleen cell homogenate.

## External Database Links

### UniProt:

[P97710](#) [Related reagents](#)

### Entrez Gene:

[25528](#) Sirpa [Related reagents](#)

**Synonyms** Bit, Mfr, Ptpns1, Shps1, Sirp

**RRID** AB\_322315

**Fusion Partners** Spleen cells from immunised mice were fused with cells of the Sp2/0 Ag-14 myeloma cell line.

**Specificity** **Mouse anti Rat CD172a antibody, clone ED9** recognizes rat Tyrosine-protein phosphatase non-receptor type substrate 1, also known as CD172a, Signal-regulatory protein alpha-1, SIRP $\alpha$  -1, SHP substrate 1, Macrophage membrane protein MFP150 or Macrophage fusion receptor. CD172a is a 509 amino acid ~56 kDa single pass type 1 transmembrane glycoprotein expressed selectively by myeloid cells and by neurons ([UniProt: P97710](#)). Mouse anti Rat CD172a antibody, clone ED9 has been reported to bind to an alternative epitpe to another anti CD172 antibody, clone OX-41 ([Adams \*et al.\* 1998](#)) and has been reported to block the interaction of CD172a - CD47 ([de Vries \*et al.\* 2002](#)).

**Flow Cytometry** Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells or 100ul whole blood.

## References

1. Damoiseaux, J.G. *et al.* (1989) Rat bone marrow and monocyte cultures: influence of culture time and lymphokines on the expression of macrophage differentiation antigens. [J Leukoc Biol. 46 \(3\): 246-53.](#)
2. Damoiseaux, J.G. *et al.* (1989) Heterogeneity of macrophages in the rat evidenced by variability in determinants: two new anti-rat macrophage antibodies against a heterodimer of 160 and 95 kd (CD11/CD18). [J Leukoc Biol. 46 \(6\): 556-64.](#)
3. Adams, S. *et al.* (1998) Signal-regulatory protein is selectively expressed by myeloid and neuronal cells. [J Immunol. 161 \(4\): 1853-9.](#)
4. DeVries, H.E. *et al.* (2002) Signal-regulatory protein alpha-CD47 interactions are required for the transmigration of monocytes across cerebral endothelium. [J Immunol. 168 \(11\): 5832-9.](#)
5. Blackbeard, J. *et al.* (2007) Quantification of the rat spinal microglial response to peripheral nerve injury as revealed by immunohistochemical image analysis and flow cytometry. [J Neurosci Methods. 164 \(2\): 207-17.](#)
6. Bode, U. *et al.* (2008) Dendritic cell subsets in lymph nodes are characterized by the specific draining area and influence the phenotype and fate of primed T cells. [Immunology. 123 \(4\): 480-90.](#)
7. Chang, J.C. *et al.* (2019) Early Immune Response to Acute Gastric Fluid Aspiration in a

- Rat Model of Lung Transplantation. [Exp Clin Transplant. 17 \(1\): 84-92.](#)
8. Holler, J. *et al.* (2008) Neuropeptide Y is expressed by rat mononuclear blood leukocytes and strongly down-regulated during inflammation. [J Immunol. 181 \(10\): 6906-12.](#)
9. Schmiedl, A. *et al.* (2021) Lung development and immune status under chronic LPS exposure in rat pups with and without CD26/DPP4 deficiency. [Cell Tissue Res. Oct 04 \[Epub ahead of print\].](#)
10. Guiteras, J. *et al.* (2021) Dual and Opposite Costimulatory Targeting with a Novel Human Fusion Recombinant Protein Effectively Prevents Renal Warm Ischemia Reperfusion Injury and Allograft Rejection in Murine Models. [Int J Mol Sci. 22 \(3\): 1216.](#)

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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: <https://www.bio-rad-antibodies.com/SDS/MCA620F>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA1209F\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
'M384627:210513'

Printed on 05 Dec 2025