

## Datasheet: MCA1898

<b>Description:</b>	RAT ANTI MOUSE CD115
<b>Specificity:</b>	CD115
<b>Other names:</b>	c-fms
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	604B5 2E11
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.25 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	▪			1/25 - 1/50
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by ion exchange chromatography
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml

<b>Immunogen</b>	Raw 264 cells.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P09581</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12978</a>    Csf1r    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Csfmr, Fms
<b>RRID</b>	AB_323254
<b>Fusion Partners</b>	Spleen cells from immunised Sprague Dawley rats were fused with cells of the P3-653 myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Mouse CD115 antibody, clone 604B5 2E11</b> recognizes the murine CD115 cell surface antigen, also known as the M-CSF receptor and as c-fms. Murine CD115 is a 958 amino acid 110kDa single pass type I transmembrane glycoprotein with tyrosine kinase activity and acts as a membrane receptor for M-CSF.</p> <p>CD115 is expressed by cells of the monocytic lineage and by progenitor cells. Rat anti Mouse CD115 antibody, clone 604B5 2E11 has been shown to inhibit <i>in vitro</i> colony formation in response to M-CSF in both rats and mice.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>Shadduck, R.K. <i>et al.</i> (1996) Paradoxical stimulation of normal and leukemic rat hematopoiesis by monoclonal antibody to CSF-1 receptor. <a href="#">Exp Hematol. 24 (2): 314-7.</a></li> <li>Gilmore, G.L. &amp; Shadduck, R.K. (1995) Inhibition of day-12 spleen colony-forming units by a monoclonal antibody to the murine macrophage/monocyte colony-stimulating factor receptor. <a href="#">Blood. 85 (10): 2731-4.</a></li> <li>MacDonald, K.P. <i>et al.</i> (2005) The colony-stimulating factor 1 receptor is expressed on dendritic cells during differentiation and regulates their expansion. <a href="#">J Immunol. 175 (3): 1399-405.</a></li> <li>Buono, M. <i>et al.</i> (2010) Sulfatase modifying factor 1-mediated fibroblast growth factor signaling primes hematopoietic multilineage development. <a href="#">J Exp Med. 207 (8): 1647-60.</a></li> <li>Weingärtner, O. <i>et al.</i> (2011) Differential effects on inhibition of cholesterol absorption by plant stanol and plant sterol esters in apoE<sup>-/-</sup> mice. <a href="#">Cardiovasc Res. 90: 484-92.</a></li> <li>Hayashi, Y. <i>et al.</i> (2010) Lumican is required for neutrophil extravasation following corneal injury and wound healing. <a href="#">J Cell Sci. 123: 2987-95.</a></li> <li>Herold, S. <i>et al.</i> (2008) Lung epithelial apoptosis in influenza virus pneumonia: the role of macrophage-expressed TNF-related apoptosis-inducing ligand. <a href="#">J Exp Med. 205: 3065-77.</a></li> <li>Pillai, M.M. <i>et al.</i> (2009) Inducible transgenes under the control of the hCD68 promoter identifies mouse macrophages with a distribution that differs from the F4/80 - and CSF-1R-expressing populations. <a href="#">Exp Hematol. 37: 1387-92.</a></li> <li>Sasmono, R.T. <i>et al.</i> (2007) Mouse neutrophilic granulocytes express mRNA encoding</li> </ol>

- the macrophage colony-stimulating factor receptor (CSF-1R) as well as many other macrophage-specific transcripts and can transdifferentiate into macrophages *in vitro* in response to CSF-1. [J Leukoc Biol. 82: 111-23.](#)
10. Dioszeghy V *et al.* (2008) 12/15-Lipoxygenase regulates the inflammatory response to bacterial products *in vivo*. [J Immunol. 181 \(9\): 6514-24.](#)
11. Fancke B *et al.* (2008) M-CSF: a novel plasmacytoid and conventional dendritic cell poietin. [Blood. 111 \(1\): 150-9.](#)
12. van Dommelen, S.L. *et al.* (2006) Perforin and granzymes have distinct roles in defensive immunity and immunopathology. [Immunity. 25 \(5\): 835-48.](#)
13. Scheller, M. *et al.* (1999) Altered development and cytokine responses of myeloid progenitors in the absence of transcription factor, interferon consensus sequence binding protein. [Blood. 94 \(11\): 3764-71.](#)
14. O'Dea, K.P. *et al.* (2009) Mobilization and margination of bone marrow Gr-1high monocytes during subclinical endotoxemia predisposes the lungs toward acute injury. [J Immunol. 182 \(2\): 1155-66.](#)
15. Nahrendorf, M. *et al.* (2007) The healing myocardium sequentially mobilizes two monocyte subsets with divergent and complementary functions. [J Exp Med. 204 \(12\): 3037-47.](#)
16. Juss, J.K. *et al.* (2012) Functional redundancy of class I phosphoinositide 3-kinase (PI3K) isoforms in signaling growth factor-mediated human neutrophil survival. [PLoS One. 7 \(9\): e45933.](#)

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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

Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos., Biotin</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight@800</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight@800</a>

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'M333468:181022'

**Printed on 10 Feb 2021**

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