

## Datasheet: MCA340FT

<b>Description:</b>	MOUSE ANTI RAT CD45RA:FITC
<b>Specificity:</b>	CD45RA (B CELLS ONLY)
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	OX-33
<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 Stabilisers</b>	0.09% Sodium Azide		
	1% Bovine Serum Albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml		

Immunogen	Purified Rat spleen L-CA
External Database Links	<p><b>UniProt:</b>  <a href="#">P04157</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">24699</a>    Ptpnc    <a href="#">Related reagents</a></p>
RRID	AB_322582
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the NSO/U mouse myeloma cell line.
Specificity	<b>Mouse anti Rat CD45RA antibody, clone OX-33</b> is directed against a high molecular weight band of the leucocyte common antigen. MRC OX-33 only labels B-cells among thoracic duct lymphocytes with little labeling in bone marrow and none on thymocytes ( <a href="#">Barclay <i>et al.</i> 1987</a> ).
Flow Cytometry	<p>This antibody does not always give a clear separation between positives and negatives in some cell preparations. If users find this to be the case we recommend the use of R. Phycoerythrin conjugated reagent MCA340PE which generally exhibits a peak of higher mean fluorescence.</p> <p>Use 10ul of the suggested working dilutions to label 10<sup>6</sup> cells in 100ul.</p>
References	<ol style="list-style-type: none"> <li>1. McCall, M.N. <i>et al.</i> (1992) Expression of soluble isoforms of rat CD45. Analysis by electron microscopy and use in epitope mapping of anti-CD45R monoclonal antibodies. <a href="#">Immunology. 76: 310-7.</a></li> <li>2. Cho, W.S. <i>et al.</i> (2012) NiO and Co3O4 nanoparticles induce lung DTH-like responses and alveolar lipoproteinosis. <a href="#">Eur Respir J. 39 (3): 546-57.</a></li> <li>3. Trama, A.M. <i>et al.</i> (2012) Lymphocyte phenotypes in wild-caught rats suggest potential mechanisms underlying increased immune sensitivity in post-industrial environments. <a href="#">Cell Mol Immunol. 9 (2): 163-74.</a></li> <li>4. Han, X. <i>et al.</i> (2013) <i>Porphyromonas gingivalis</i> infection-associated periodontal bone resorption is dependent on receptor activator of NF-κB ligand. <a href="#">Infect Immun. 81 (5): 1502-9.</a></li> <li>5. Marolda, R. <i>et al.</i> (2013) Differential targeting of immune-cells by Pixantrone in experimental myasthenia gravis. <a href="#">J Neuroimmunol. 258 (1-2): 41-50.</a></li> <li>6. Okamura, T. <i>et al.</i> (2013) Phenotypic Characterization of LEA Rat: A New Rat Model of Nonobese Type 2 Diabetes. <a href="#">J Diabetes Res. 2013: 986462.</a></li> <li>7. Denecke, C. <i>et al.</i> (2013) Synergistic effects of prolonged warm ischemia and donor age on the immune response following donation after cardiac death kidney transplantation. <a href="#">Surgery. 153 (2): 249-61.</a></li> <li>8. Stefanski, V. <i>et al.</i> (2013) Differential effect of severe and moderate social stress on blood immune and endocrine measures and susceptibility to collagen type II arthritis in male rats. <a href="#">Brain Behav Immun. 29: 156-65.</a></li> </ol>

9. Pilatz, A. *et al.* (2015) Experimental *Escherichia coli* epididymitis in rats: assessment of testicular involvement in a long-term follow-up. [Andrologia. 47 \(2\): 160-7.](#)
10. Pongratz, G. *et al.* (2015) A sustained high fat diet for two years decreases IgM and IL-1 beta in ageing Wistar rats. [Immun Ageing. 12: 12.](#)
11. Lu, J.H. *et al.* (2015) GABAergic neurons in cerebellar interposed nucleus modulate cellular and humoral immunity via hypothalamic and sympathetic pathways. [J Neuroimmunol. 283: 30-8.](#)
12. Williamson, L.L. *et al.* (2016) Got worms? Perinatal exposure to helminths prevents persistent immune sensitization and cognitive dysfunction induced by early-life infection. [Brain Behav Immun. 51: 14-28.](#)
13. Ogawa, B. *et al.* (2019) Strain differences in histopathological features of lymphoid tissues of SD and F344 rats in a T cell-dependent antibody response assay of cyclophosphamide. [J Toxicol Pathol. 32 \(3\): 143-54.](#)
14. 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.](#)
15. Dabrowska, S. *et al.* (2019) Human bone marrow mesenchymal stem cell-derived extracellular vesicles attenuate neuroinflammation evoked by focal brain injury in rats. [J Neuroinflammation. 16 \(1\): 216.](#)
16. Cakała-Jakimowicz, M. & Puzianowska-Kuznicka, M. (2022) Towards Understanding the Lymph Node Response to Skin Infection with Saprophytic *Staphylococcus epidermidis*. [Biomedicines. 10 \(5\): 1021.](#)

#### 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.

#### Guarantee

12 months from date of despatch

#### Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA340FT10041>

#### Regulatory

For research purposes only

## Related Products

### Recommended Negative Controls

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

#### North & South America

Tel: +1 800 265 7376

Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

#### Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

#### Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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

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