

Datasheet: MCA340GA

BATCH NUMBER 164277

Description:	MOUSE ANTI RAT CD45RA (B CELLS ONLY)
Specificity:	CD45RA (B CELLS ONLY)
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	OX-33
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/50 - 1/100
Immunohistology - Frozen	▪			1/100 - 1/500
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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.

(1)PLP fixation is recommended for optimal results, see [Whiteland et al.](#) for details

Target Species	Rat
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline.
Preservative Stabilisers	0.09% Sodium Azide

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Purified Rat spleen L-CA
External Database Links	<p>UniProt:</p> <p>P04157 Related reagents</p> <p>Entrez Gene:</p> <p>24699 Ptprc Related reagents</p>
RRID	AB_566776
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the NSO/U mouse myeloma cell line.
Specificity	Mouse anti Rat CD45RA antibody, clone OX-33 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 (Barclay et al. 1987).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 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. Immunology. 76: 310-7. 2. Cho, W.S. <i>et al.</i> (2012) NiO and Co3O4 nanoparticles induce lung DTH-like responses and alveolar lipoproteinosis. Eur Respir J. 39 (3): 546-57. 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. Cell Mol Immunol. 9 (2): 163-74. 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. Infect Immun. 81 (5): 1502-9. 5. Marolda, R. <i>et al.</i> (2013) Differential targeting of immune-cells by Pixantrone in experimental myasthenia gravis. J Neuroimmunol. 258 (1-2): 41-50. 6. Okamura, T. <i>et al.</i> (2013) Phenotypic Characterization of LEA Rat: A New Rat Model of Nonobese Type 2 Diabetes. J Diabetes Res. 2013: 986462. 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. Surgery. 153 (2): 249-61. 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. Brain Behav Immun. 29: 156-65. 9. Pilatz, A. <i>et al.</i> (2015) Experimental <i>Escherichia coli</i> 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	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA340GA
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

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

Product inquiries: 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
'M390808:211004'

Printed on 05 Aug 2025

© 2025 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)