

Datasheet: MCA340PE

BATCH NUMBER 173411

Description:	MOUSE ANTI RAT CD45RA:RPE
Specificity:	CD45RA (B CELLS ONLY)
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	OX-33
Isotype:	IgG1
Quantity:	100 TESTS

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	▪			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.

Target Species	Rat		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Antibody purified from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide		
	1%	Bovine Serum Albumin	
	5%	Sucrose	

Immunogen Purified Rat spleen L-CA

External Database

Links

UniProt:

[P04157](#) [Related reagents](#)

Entrez Gene:

[24699](#) Ptprc [Related reagents](#)

RRID

AB_321427

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 10⁶ cells in 100ul.

References

1. McCall, M.N. *et al.* (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. *et al.* (2012) NiO and Co3O4 nanoparticles induce lung DTH-like responses and alveolar lipoproteinosis. [Eur Respir J. 39 \(3\): 546-57.](#)
3. Trama, A.M. *et al.* (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. *et al.* (2013) *Porphyromonas gingivalis* infection-associated periodontal bone resorption is dependent on receptor activator of NF-κB ligand. [Infect Immun. 81 \(5\): 1502-9.](#)
5. Marolda, R. *et al.* (2013) Differential targeting of immune-cells by Pixantrone in experimental myasthenia gravis. [J Neuroimmunol. 258 \(1-2\): 41-50.](#)
6. Okamura, T. *et al.* (2013) Phenotypic Characterization of LEA Rat: A New Rat Model of Nonobese Type 2 Diabetes. [J Diabetes Res. 2013: 986462.](#)
7. Denecke, C. *et al.* (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. *et al.* (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. *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.

Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA340PE>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA1209PE\)](#)

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

'M440770:250523'

Printed on 19 Mar 2026