

Datasheet: MCA43A700

BATCH NUMBER 159868

Description:	MOUSE ANTI RAT CD45:Alexa Fluor® 700		
Specificity:	CD45		
Other names:	LCA		
Format:	ALEXA FLUOR® 700		
Product Type:	Monoclonal Antibody		
Clone:	OX-1		
Isotype:	lgG1		
Quantity:	100 TESTS/1ml		

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 - 1/5

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 Alexa Fluor® 700 - liquid			
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm	
	Alexa Fluor®700	702	723	
Preparation	Purified IgG prepare supernatant	ed by affinity chromatog	raphy on Protein G	
Buffer Solution	Phosphate buffered	saline		
Preservative	0.09% Sodium Azid	e		
Stabilisers	1% Bovine Serui	m Albumin		
Approx. Protein	IgG concentration 0	.05 mg/ml		

Rat thymocyte membrane glycoproteins.					
UniProt: P04157 Related reagents					
Entrez Gene: 24699 Ptprc Related reagents					
AB_844501					
Spleen cells from immunized BALB/c mice were fused with cells of the NS1 mouse myeloma cell line.					
Mouse anti Rat CD45 antibody, clone OX-1 recognizes CD45, also known as the leucocyte common antigen (LCA). The leucocyte common antigen consists of a family of heavily glycosylated membrane glycoproteins of molecular weight 180 – 240kDa.					
Antibodies recognising a common epitope on all of these isoforms are termed CD45, whilst those recognising only individual isoforms are termed CD45RA, CD45RO etc. O reacts with all forms of CD45 expressed by all haematopoietic cells, except erythrocyte					
CD45 isoforms play complex roles in T-cell and B-cell antigen receptor signal transduction.					
This product is routinely tested in flow cytometry on rat splenocytes					
Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.					
 Standring, R. <i>et al.</i> (1978) The predominant heavily glycosylated glycoproteins at the surface of rat lymphoid cells are differentiation antigens. <u>Eur J Immunol. 8 (12): 832-9.</u> Sunderland, C.A. <i>et al.</i> (1979) Purification with monoclonal antibody of a predominant leukocyte-common antigen and glycoprotein from rat thymocytes. <u>Eur J Immunol. 9 (2): 155-9.</u> Woollett, G.R. <i>et al.</i> (1985) Molecular and antigenic heterogeneity of the rat leukocyte-common antigen from thymocytes and T and B lymphocytes. <u>Eur J Immunol. 15 (2):</u> 					

- 168-73.4. Martín, A. *et al.* (1995) Passive dual immunization against tumour necrosis factor-alpha (TNF-alpha) and IL-1 beta maximally ameliorates acute aminonucleoside nephrosis. <u>Clin</u>
- 5. Giezeman-Smits, K.M. *et al.* (1999) The regulatory role of CD45 on rat NK cells in target cell lysis. <u>J Immunol. 163 (1): 71-6.</u>
- 6. Murakami, K. *et al.* (2000) Regulation of mast cell signaling through high-affinity IgE receptor by CD45 protein tyrosine phosphatase. <u>Int Immunol. 12 (2): 169-76.</u>
- 7. Ermert, L. *et al.* (2001) Comparison of different detection methods in quantitative microdensitometry. <u>Am J Pathol. 158: 407-17.</u>

Exp Immunol. 99 (2): 283-8.

- 8. Dick, A.D. *et al.* (2001) Distribution of OX2 antigen and OX2 receptor within retina. Invest Ophthalmol Vis Sci. 42: 170-6.
- 9. Sato, K. *et al.* (2001) Carbon monoxide generated by heme oxygenase-1 suppresses the rejection of mouse-to-rat cardiac transplants. <u>J Immunol. 166 (6): 4185-94.</u>
- 10. Kurozumi, K. *et al.* (2007) Effect of tumor microenvironment modulation on the efficacy of oncolytic virus therapy. J Natl Cancer Inst. 99: 1768-81.
- 11. Leonardo, C.C. *et al.* (2009) Inhibition of gelatinase activity reduces neural injury in an ex vivo model of hypoxia-ischemia. <u>Neuroscience</u>. 160: 755-66.
- 12. Vaschetto, R. *et al.* (2010) Renal hypoperfusion and impaired endothelium-dependent vasodilation in an animal model of VILI: the role of the peroxynitrite-PARP pathway <u>Crit Care. 14: R45.</u>
- 13. Ladhoff, J. *et al.* (2010) Immune privilege of endothelial cells differentiated from endothelial progenitor cells. <u>Cardiovasc Res. 88: 121-9.</u>
- 14. Jeong, H.K. *et al* (2010) Inflammatory responses are not sufficient to cause delayed neuronal death in ATP-induced acute brain injury. <u>PLoS One. 5: e13756.</u>
- 15. Schupp, N. *et al.* (2011) Mineralocorticoid receptor-mediated DNA damage in kidneys of DOCA-salt hypertensive rats. <u>FASEB J. 25 (3): 968-78.</u>
- 16. Markusic, D.M. *et al.* (2010) Separating lentiviral vector injection and induction of gene expression in time, does not prevent an immune response to rtTA in rats. <u>PLoS One. 5:</u> e9974.
- 17. Runesson, E. *et al.* (2015) Nucleostemin- and Oct 3/4-positive stem/progenitor cells exhibit disparate anatomical and temporal expression during rat Achilles tendon healing. BMC Musculoskelet Disord. 16: 212.
- 18. Tanner, D.C. *et al.* (2015) cFLIP is critical for oligodendrocyte protection from inflammation. Cell Death Differ. 22 (9): 1489-501.
- 19. Wang, C. *et al.* (2015) Small activating RNA induces myogenic differentiation of rat adipose-derived stem cells by upregulating MyoD. Int Braz J Urol. 41 (4): 764-72.
- 20. Yao, Y. *et al.* (2016) Alendronate Attenuates Spinal Microglial Activation and Neuropathic Pain. <u>J Pain.</u> 17 (8): 889-903.
- 21. Collins, J.J.P. *et al.* (2018) Impaired Angiogenic Supportive Capacity and Altered Gene Expression Profile of Resident CD146⁺ Mesenchymal Stromal Cells Isolated from Hyperoxia-Injured Neonatal Rat Lungs. <u>Stem Cells Dev. 27 (16): 1109-24.</u>
- 22. Porwal, K. *et al.* (2019) Increased bone marrow-specific adipogenesis by clofazimine causes impaired fracture healing, osteopenia and osteonecrosis without extra-skeletal effects in rats. <u>Toxicol Sci. kfz172.</u>
- 23. Hellenbrand, D.J. *et al.* (2019) Sustained interleukin-10 delivery reduces inflammation and improves motor function after spinal cord injury. <u>J Neuroinflammation</u>. 16 (1): 93.
- 24. Kuriyama, T. *et al.* (2020) A novel rat model of inflammatory bowel disease developed using a device created with a 3D printer. <u>Regen Ther. 14: 1-10.</u>
- 25. Pilipović, I. *et al.* (2020) Propranolol diminished severity of rat EAE by enhancing immunoregulatory/protective properties of spinal cord microglia. <u>Neurobiol Dis. 134:</u> 104665.
- 26. Dabrowska, S. *et al.* (2021) Neuroinflammation evoked by brain injury in a rat model of lacunar infarct. Exp Neurol. 336: 113531.
- 27. Elabi, O.F. *et al.* (2021) L-dopa-Dependent Effects of GLP-1R Agonists on the Survival of Dopaminergic Cells Transplanted into a Rat Model of Parkinson Disease. <u>Int J Mol Sci.</u> 22(22):12346.

- 28. Hou, Y. et al. (2021) Pseudoginsenoside-F11 promotes functional recovery after transient cerebral ischemia by regulating the microglia/macrophage polarization in rats. Int Immunopharmacol. 99: 107896.
- 29. Eweida, A. et al. (2022) Systemically injected bone marrow mononuclear cells specifically home to axially vascularized tissue engineering constructs. PLoS One. 17 (8): e0272697.
- 30. Yang, Q. et al. (2022) Electrospun aligned poly(ε-caprolactone) nanofiber yarns guiding 3D organization of tendon stem/progenitor cells in tenogenic differentiation and tendon repair. Front Bioeng Biotechnol. 10: 960694.
- 31. Wu, Y. et al. (2018) Increased ceruloplasmin expression caused by infiltrated leukocytes, activated microglia, and astrocytes in injured female rat spinal cords. J Neurosci Res. 96 (7): 1265-76.

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

Acknowledgements

This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com

Health And Safety Information

Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA43A700

10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL: Alexa Fluor® 700 (MCA1209A700)

America

North & South Tel: +1 800 265 7376 Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739

Europe

Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_uk@bio-rad.com

Email: antibody_sales_de@bio-rad.com

Printed on 05 Feb 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint