

Datasheet: MCA43FB

BATCH NUMBER 1610

Description:	MOUSE ANTI RAT CD45:FITC
Specificity:	CD45
Other names:	LCA
Format:	FITC
Product Type:	Monoclonal Antibody
Product Type: Clone:	Monoclonal Antibody OX-1
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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	-			1/5 - 1/50

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 conju	ugated to Fluorescein Isoth	niocyanate Isomer 1	
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)	
	FITC	490	525	
Buffer Solution	Phosphate buffer	ed saline		
Preservative	0.09% Sodium Azide			
Stabilisers	1% Bovine Se	rum Albumin		
Approx. Protein Concentrations	lgG concentration	n 0.5 mg/ml		
Immunogen	Rat thymocyte me	embrane glycoproteins.		

External Database Links

UniProt:

P04157 Related reagents

Entrez Gene:

24699 Ptprc Related reagents

RRID

AB 566766

Fusion Partners

Spleen cells from immunised BALB/c mice were fused with cells of the NS1 mouse myeloma cell line.

Specificity

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. OX-1 reacts with all forms of CD45 expressed by all haematopoietic cells, except erythrocytes.

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

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

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- 6. Standring, R. *et al.* (1978) The predominant heavily glycosylated glycoproteins at the surface of rat lymphoid cells are differentiation antigens. Eur J Immunol. 8 (12): 832-9.
- 7. 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>
- 8. Zilka, N. *et al.* (2009) Human misfolded truncated tau protein promotes activation of microglia and leukocyte infiltration in the transgenic rat model of tauopathy. <u>J</u> Neuroimmunol. 209 (1-2): 16-25.
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DOCA-salt hypertensive rats. FASEB J. 25 (3): 968-78.

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- 13. 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.
- 14. 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</u> Care. 14: R45.
- 15. Ladhoff, J. *et al.* (2010) Immune privilege of endothelial cells differentiated from endothelial progenitor cells. <u>Cardiovasc Res. 88: 121-9.</u>
- 16. Yao, Y. *et al.* (2016) Alendronate Attenuates Spinal Microglial Activation and Neuropathic Pain. <u>J Pain.</u> 17 (8): 889-903.
- 17. Wang, C. *et al.* (2015) Small activating RNA induces myogenic differentiation of rat adipose-derived stem cells by upregulating MyoD. <u>Int Braz J Urol. 41 (4): 764-72.</u>
- 18. Tanner, D.C. *et al.* (2015) cFLIP is critical for oligodendrocyte protection from inflammation. Cell Death Differ. 22 (9): 1489-501.
- 19. 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.
- 20. 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.
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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. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. 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 #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA43FB 10041		
Regulatory	For research purposes only		

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA1209F)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M367693:200529'

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