

# Datasheet: MCA643GA

**BATCH NUMBER 153740**

<b>Description:</b>	MOUSE ANTI RAT CD44
<b>Specificity:</b>	CD44
<b>Other names:</b>	H-CAM, PGP-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	OX-50
<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	▪			1/50
Immunohistology - Frozen (1)	▪			
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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.

**(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.**

<b>Target Species</b>	Rat
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	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	Rat T cell blasts.
External Database Links	<p><b>UniProt:</b>  <a href="#">P26051</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">25406</a>   Cd44   <a href="#">Related reagents</a></p>
RRID	AB_566755
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS0/1 myeloma cell line.
Specificity	<p><b>Mouse anti Rat CD44 antibody, clone OX-50</b> recognizes the rat CD44 cell surface antigen, also known as Extracellular matrix receptor III, P90 lymphocyte homing/adhesion receptor, HUTCH-I, Hermes antigen, Hyaluronate receptor, Phagocytic glycoprotein 1, PGP-1 or Phagocytic glycoprotein I.</p> <p>CD44 is a 482 amino acid ~85 kDa single pass type I transmembrane glycoprotein, expressed by T cells, B cells, macrophages and thymocytes, with expression being increased following activation.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label $10^6$ cells in 100ul.
References	<ol style="list-style-type: none"> <li>1. Stevenson, K.S. <i>et al.</i> (2009) Isolation, characterization, and differentiation of thy1.1-sorted pancreatic adult progenitor cell populations. <a href="#">Stem Cells Dev. 18:1389-98.</a></li> <li>2. Jiang, T.S. <i>et al.</i> (2010) Reconstruction of the corneal epithelium with induced marrow mesenchymal stem cells in rats. <a href="#">Mol Vis. 16: 1304-16.</a></li> <li>3. Kanellis, J. <i>et al.</i> (2010) JNK signalling in human and experimental renal ischaemia/reperfusion injury. <a href="#">Nephrol Dial Transplant. 25: 2898-908.</a></li> <li>4. Li, S. <i>et al.</i> (2010) Upregulation of CXCR4 favoring neural-like cells migration via AKT activation. <a href="#">Neurosci Res. 67: 293-9.</a></li> <li>5. Stephens, L.A. <i>et al.</i> (2004) Phenotypic characterization of regulatory CD4+CD25+ T cells in rats. <a href="#">Int Immunol. 16: 365-75.</a></li> <li>6. Rice, C.M. <i>et al.</i> (2010) Multipotent adult progenitor cell isolation and proliferation in cytokine and serum-free medium conditioned by rat B104 cells. <a href="#">Br J Haematol. 148: 441-4.</a></li> <li>7. Carulli, D. <i>et al</i> (2006) Composition of perineuronal nets in the adult rat cerebellum and</li> </ol>

- the cellular origin of their components. [J Comp Neurol. 494: 559-77.](#)
8. Galtrey, C.M. *et al.* (2008) Distribution and synthesis of extracellular matrix proteoglycans, hyaluronan, link proteins and tenascin-R in the rat spinal cord. [Eur J Neurosci. 27: 1373-90.](#)
  9. Hofmann, N. *et al.* (2002) Increased expression of ICAM-1, VCAM-1, MCP-1, and MIP-1 alpha by spinal perivascular macrophages during experimental allergic encephalomyelitis in rats. [BMC Immunol. 3: 11.](#)
  10. Walther, M. *et al.* (2001) Exogenous antigen containing perivascular phagocytes induce a non-encephalitogenic extravasation of primed lymphocytes. [J Neuroimmunol. 117: 30-42.](#)
  11. Suzuki, A. *et al.* (2006) Localization of CD44 and hyaluronan in the synovial membrane of the rat temporomandibular joint. [Anat Rec A Discov Mol Cell Evol Biol. 288: 646-52.](#)
  12. Goransson, V. *et al.* (2004) Renal hyaluronan accumulation and hyaluronan synthase expression after ischaemia-reperfusion injury in the rat. [Nephrol Dial Transplant. 19: 823-30.](#)
  13. Campbell, N.G. *et al.* (2016) Cell Size Critically Determines Initial Retention of Bone Marrow Mononuclear Cells in the Heart after Intracoronary Injection: Evidence from a Rat Model. [PLoS One. 11 \(7\): e0158232.](#)
  14. Bejar, M.T. *et al.* (2016) Inhibition of Notch rescues the angiogenic potential impaired by cardiovascular risk factors in epicardial adipose stem cells. [FASEB J. 30 \(8\): 2849-59.](#)
  15. Rochefort, G.Y. *et al.* (2006) Multipotential mesenchymal stem cells are mobilized into peripheral blood by hypoxia. [Stem Cells. 24 \(10\): 2202-8.](#)
  16. Redondo, J. *et al.* (2015) Reductions in kinesin expression are associated with nitric oxide-induced axonal damage. [J Neurosci Res. 93 \(6\): 882-92.](#)
  17. Huang, X. *et al.* (2019) MRI Tracking of SPIO- and *Fth1*-Labeled Bone Marrow Mesenchymal Stromal Cell Transplantation for Treatment of Stroke. [Contrast Media Mol Imaging. 2019: 5184105.](#)
  18. Aminzadeh, A. *et al.* (2020) Investigating The Alterations of Oxidative Stress Status, Antioxidant Defense Mechanisms, MAP Kinase and Mitochondrial Apoptotic Pathway in Adipose-Derived Mesenchymal Stem Cells from STZ Diabetic Rats. [Cell J. 22 \(Suppl 1\): 38-48.](#)
  19. Paiva, R.G. *et al.* (2020) Stem cells in end-to-side neurorrhaphy. Experimental study in rats [Acta Cirúrgica Brasileira. 35 \(12\) Jan 20 \[Epub ahead of print\].](#)

<b>Storage</b>	Store at +4°C or at -20°C if preferred.
	This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA643GA">https://www.bio-rad-antibodies.com/SDS/MCA643GA</a> 10040
<b>Regulatory</b>	For research purposes only

---

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>

### Recommended Negative Controls

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M368750:200529'

Printed on 18 Jan 2024