

Datasheet: MCA643F

BATCH NUMBER 1807

Description:	MOUSE ANTI RAT CD44:FITC
Specificity:	CD44
Other names:	H-CAM, PGP-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	OX-50
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	▪			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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein	IgG concentration 0.1 mg/ml		

Concentrations

Immunogen Rat T cell blasts.

External Database Links

UniProt:

[P26051](#) [Related reagents](#)

Entrez Gene:

[25406](#) Cd44 [Related reagents](#)

RRID AB_321722

Fusion Partners Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS0/1 myeloma cell line.

Specificity **Mouse anti Rat CD44 antibody, clone OX-50** 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.

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.

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

References

1. Stevenson, K.S. *et al.* (2009) Isolation, characterization, and differentiation of thy1.1-sorted pancreatic adult progenitor cell populations. [Stem Cells Dev. 18:1389-98.](#)
2. Jiang, T.S. *et al.* (2010) Reconstruction of the corneal epithelium with induced marrow mesenchymal stem cells in rats. [Mol Vis. 16: 1304-16.](#)
3. Kanellis, J. *et al.* (2010) JNK signalling in human and experimental renal ischaemia/reperfusion injury. [Nephrol Dial Transplant. 25: 2898-908.](#)
4. Li, S. *et al.* (2010) Upregulation of CXCR4 favoring neural-like cells migration via AKT activation. [Neurosci Res. 67: 293-9.](#)
5. Stephens, L.A. *et al.* (2004) Phenotypic characterization of regulatory CD4+CD25+ T cells in rats. [Int Immunol. 16: 365-75.](#)
6. Rice, C.M. *et al.* (2010) Multipotent adult progenitor cell isolation and proliferation in cytokine and serum-free medium conditioned by rat B104 cells. [Br J Haematol. 148: 441-4.](#)
7. Carulli, D. *et al.* (2006) Composition of perineuronal nets in the adult rat cerebellum and 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 \[Epub ahead of print\].](#)

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/MCA643F>
10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA1209F)

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

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