

Datasheet: MCA89F

BATCH NUMBER 0512R

Description:	MOUSE ANTI HUMAN CD44:FITC
Specificity:	CD44
Other names:	H-CAM, PGP-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	F10-44-2
Isotype:	IgG2a
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

Human

Species Cross Reactivity

Reacts with: Cynomolgus monkey

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

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 G from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Human T lymphocytes.
External Database Links	<p>UniProt: P16070 Related reagents</p> <p>Entrez Gene: 960 CD44 Related reagents</p>
Synonyms	LHR, MDU2, MDU3, MIC4
RRID	AB_321713
Fusion Partners	Spleen cells of immunised BALB/c mice were fused with cells from the mouse NS1 myeloma line.
Specificity	<p>Mouse anti Human CD44 antibody, clone F10-44-2 recognizes human CD44, also known as Epican, HCAM, Phagocytic Glycoprotein 1 (PGP-1) or Hyaluronate receptor . Human CD44 is a single pass, type I transmembrane glycoprotein of variable molecular weight ranging from ~90kDa to ~220kDa depending on alternate splicing of the variable region exons and on the degree of glycosylation. CD44 is expressed on multiple cell types and is involved in multiple functions including cell-cell interactions and cell-extracellular matrix binding. Hyaluronan, a high molecular weight polysaccharide component of the extracellular matrix acts as the principal ligand for the CD44 receptor (Laurent and Fraser 1992).</p> <p>CD44 isoforms containing one or more sequences encoded by the variant region exons have a much more restricted expression pattern both in terms of organ specificity and immune activation (Mackay et al. 1994). .</p> <p>Mouse anti Human CD44 antibody, clone F10-44-2 recognizes an epitope on human CD44 outside the regions coded for by the variable region exons and is thus expected to recognize all isoforms of human CD44 (Mackay et al. 1994).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Dalchau, R. <i>et al.</i> (1980) Monoclonal antibody to a human brain-granulocyte-T lymphocyte antigen probably homologous to the W 3/13 antigen of the rat. Eur J Immunol. 10 (10): 745-9. 2. Daar, A.S. & Fabre, J.W. (1981) Demonstration with monoclonal antibodies of an

- unusual mononuclear cell infiltrate and loss of normal epithelial membrane antigens in human breast carcinomas. [Lancet. 2 \(8244\): 434-8.](#)
3. Cattoretti, G. *et al.* (1993) Antigen unmasking on formalin-fixed, paraffin-embedded tissue sections. [J Pathol. 171 \(2\): 83-98.](#)
 4. Avigdor, A. *et al.* (2004) CD44 and hyaluronic acid cooperate with SDF-1 in the trafficking of human CD34+ stem/progenitor cells to bone marrow. [Blood. 103: 2981-9.](#)
 5. Hauser, P.V. *et al.* (2010) Stem cells derived from human amniotic fluid contribute to acute kidney injury recovery. [Am J Pathol. 177: 2011-21.](#)
 6. Hughes, G.J. *et al.* (2007) Virus immunocapture provides evidence of CD8 lymphocyte-derived HIV-1 in vivo. [AIDS. 21: 1507-13.](#)
 7. Roscic-Mrkic, B. *et al.* (2003) RANTES (CCL5) uses the proteoglycan CD44 as an auxiliary receptor to mediate cellular activation signals and HIV-1 enhancement. [Blood. 102: 1169-77.](#)
 8. Stolzing, A. *et al.* (2008) Age-related changes in human bone marrow-derived mesenchymal stem cells: consequences for cell therapies. [Mech Ageing Dev. 129: 163-73.](#)
 9. Sundström, M. (2003) Functional and phenotypic studies of two variants of a human mast cell line with a distinct set of mutations in the c-kit proto-oncogene. [Immunology. 108: 89-97.](#)
 10. Yin, S. *et al.* (2010) Chondrogenic transdifferentiation of human dermal fibroblasts stimulated with cartilage-derived morphogenetic protein 1. [Tissue Eng Part A. 16: 1633-43.](#)
 11. Oshiro, N. *et al.* (1998) Phosphorylation of moesin by rho-associated kinase (Rho-kinase) plays a crucial role in the formation of microvilli-like structures. [J Biol Chem. 273: 34663-6.](#)
 12. Norrmen, C. *et al.* (2010) Liprin (beta)1 is highly expressed in lymphatic vasculature and is important for lymphatic vessel integrity. [Blood. 115: 906-9.](#)
 13. Mackay, F. *et al.* (1993) Tumor necrosis factor alpha (TNF-alpha)-induced cell adhesion to human endothelial cells is under dominant control of one TNF receptor type, TNF-R55. [J Exp Med. 177: 1277-86.](#)
 14. Reim, F. *et al.* (2009) Immunoselection of breast and ovarian cancer cells with trastuzumab and natural killer cells: selective escape of CD44^{high}/CD24^{low}/HER2^{low} breast cancer stem cells. [Cancer Res. 69: 8058-66.](#)
 15. Hughes, G.J. *et al.* (2007) Virus immunocapture provides evidence of CD8 lymphocyte-derived HIV-1 in vivo. [AIDS. 21: 1507-13.](#)
 16. Horwitz, K.B. *et al.* (2008) Rare steroid receptor-negative basal-like tumorigenic cells in luminal subtype human breast cancer xenografts. [Proc Natl Acad Sci U S A. 105: 5774-9.](#)
 17. Ito, T. *et al.* (1999) A CD1a⁺/CD11c⁺ subset of human blood dendritic cells is a direct precursor of Langerhans cells. [J Immunol. 163: 1409-19.](#)
 18. Chang, Y.C. *et al.* (2006) The glycosaminoglycan-binding domain of decoy receptor 3 is essential for induction of monocyte adhesion. [J Immunol. 176: 173-80.](#)
 19. Amirghofran, Z. *et al.* (2008) Evaluation of CD44 and CD44v6 in colorectal carcinoma patients: soluble forms in relation to tumor tissue expression and metastasis. [J Gastrointest Cancer. 39: 73-8.](#)
 20. Walker, M.M. *et al.* (2008) The intercellular adhesion molecule, cadherin-10, is a marker for human prostate luminal epithelial cells that is not expressed in prostate cancer.

[Mod Pathol. 2008 Feb;21: 85-95.](#)

21. Lee, H.J. *et al.* (2017) ICOSL expression in human bone marrow-derived mesenchymal stem cells promotes induction of regulatory T cells. [Sci Rep. 7: 44486.](#)

22. Yi, T. *et al.* (2015) Manufacture of Clinical-Grade Human Clonal Mesenchymal Stem Cell Products from Single Colony Forming Unit-Derived Colonies Based on the Subfractionation Culturing Method. [Tissue Eng Part C Methods. 21 \(12\): 1251-62.](#)

23. Xu, L. *et al.* (2017) Umbilical cord-derived mesenchymal stem cells on scaffolds facilitate collagen degradation via upregulation of MMP-9 in rat uterine scars. [Stem Cell Res Ther. 8 \(1\): 84.](#)

24. Hou, B. *et al.* (2018) Xenogeneic acellular nerve scaffolds supplemented with autologous bone marrow-derived stem cells promote axonal outgrowth and remyelination but not nerve function. [J Biomed Mater Res A. 106 \(12\): 3065-78.](#)

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/MCA89F>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:FITC \(MCA929F\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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

'M369120:200529'

Printed on 30 Jan 2026