

# Datasheet: MCA87FT

Description:	MOUSE ANTI HUMAN CD45:FITC
Specificity:	CD45
Other names:	LCA
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	F10-89-4
Isotype:	lgG2a
Quantity:	10 µg

## **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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry				Neat

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		
Product Form	Purified IgG conju	gated to Fluorescein Isoth	niocyanate Isomer 1
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm
	FITC	490	525
Preparation	Purified IgG prepa	ared by affinity chromatog	raphy on Protein A f
Buffer Solution	Phosphate buffere	ed saline	
reservative	0.09% Sodium Az	ide	
Stabilisers	1% Bovine Ser	rum Albumin	
Approx. Protein Concentrations	IgG concentration	0.1 mg/ml	

Immunogen	Human T lymphocytes.
External Database Links	UniProt: P08575 Related reagents  Entrez Gene: 5788 PTPRC Related reagents
	5788 PTPRC Related reagents
Synonyms	CD45
RRID	AB_844502
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.
Specificity	Mouse anti Human CD45 antibody, clone F10-89-4 recognizes the human CD45 cell surface antigen, also known as leucocyte common antigen (LCA). CD45 is a complex molecule existing in a number of isoforms.
	Antibodies recognizing a common epitope on all of these isoforms are termed CD45 whilst those recognizing only individual isoforms are termed CD45RA or CD45RO etc.
	Mouse anti Human CD45 antibody, clone F10-89-4 reacts with all forms of CD45 expressed by all haematopoietic cells, except erythrocytes, having a higher level of expression on lymphocytes than on granulocytes. It is routinely tested in flow cytometry on human peripheral blood leucocytes.
	Mouse anti Human CD45 antibody, clone F10-89-4, has been validated for use on the Genesis Cell Isolation System with the CelSelect Slide <sup>TM</sup> technology.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood.
References	<ol> <li>Quenby, S <i>et al.</i> (1999) Pre-implantation endometrial leukocytes in women with recurrent miscarriage. <u>Human Reprod. 14(9):2386-2391.</u></li> <li>Hauser, P.V. <i>et al.</i> (2010) Stem cells derived from human amniotic fluid contribute to acute kidney injury recovery. <u>Am J Pathol. 177: 2011-21.</u></li> <li>Mallam, E. <i>et al.</i> (2010) Characterization of <i>in vitro</i> expanded bone marrow-derived</li> </ol>
	<ul> <li>mesenchymal stem cells from patients with multiple sclerosis. Mult Scler. 16: 909-18.</li> <li>4. Marrinucci, D. et al. (2010) Cytomorphology of circulating colorectal tumor cells:a small case series. J Oncol. 2010: 861341.</li> <li>5. Paul, G. et al. (2012) The adult human brain harbors multipotent perivascular mesenchymal stem cells. PLoS One. 7: e35577.</li> <li>6. De Schauwer, C. et al. (2012) In search for cross-reactivity to immunophenotype equine mesenchymal stromal cells by multicolor flow cytometry. Cytometry A. 81 (4): 312-23.</li> </ul>
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liquid biopsy biomarkers associated with multiple myeloma. NPJ Precis Oncol. 7 (1): 95. 29. Welter, L. *et al.* (2023) Cell State and Cell Type: Deconvoluting Circulating Tumor Cell Populations in Liquid Biopsies by Multi-Omics. Cancers (Basel). 15 (15): 3949. 30. Shishido, S.N. *et al.* (2024) Cancer-related cells and oncosomes in the liquid biopsy of pancreatic cancer patients undergoing surgery. NPJ Precis Oncol. 8 (1): 36.

**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
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA87FT">https://www.bio-rad-antibodies.com/SDS/MCA87FT</a> 10041
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)

North & South Tel: +1 800 265 7376

America

Fax: +1 919 878 3751

Worldwide

Tel: +44 (0)1865 852 700

Europe

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

Email: antibody\_sales\_us@bio-rad.com

Fax: +44 (0)1865 852 739
Email: antibody\_sales\_uk@bio-rad.com

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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 'M393590:220112'

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