

Datasheet: MCA87FT

Description:	MOUSE ANTI HUMAN CD45:FITC
Specificity:	CD45
Other names:	LCA
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	F10-89-4
Isotype:	IgG2a
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 conjugate	ed to Fluorescein Isoth	niocyanate Isomer ′
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm
	FITC	490	525
Preparation Buffer Solution	Purified IgG prepared supernatant  Phosphate buffered sa		raphy on Protein G
reservative tabilisers	0.09% Sodium Azide 1% Bovine Serum	Albumin	
approx. Protein	IgG concentration 0.1	mg/ml	

Immunogen	Human T lymphocytes.
External Database Links	UniProt: P08575 Related reagents  Entrez Gene: 5788 PTPRC Related reagents
Synonyms	CD45
RRID	AB_844502
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.
Specificity	<b>Mouse anti Human CD45 antibody, clone F10-89-4</b> 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.
	Mouse anti Human CD45 antibody, clone F10-89-4 is routinely tested in flow cytometry on human peripheral blood leucocytes.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood.
References	<ol> <li>Dalchau, R. <i>et al.</i> (1980) Monoclonal antibody to a human leukocyte-specific membrane glycoprotein probably homologous to the leukocyte-common (L-C) antigen of the rat. <u>Eur J Immunol. 10 (10): 737-44.</u></li> <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 DV <i>et al.</i> (2010) Stem cells derived from human empiritie fluid contribute to</li> </ol>
	<ol> <li>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.</li> <li>Mallam, E. et al. (2010) Characterization of in vitro expanded bone marrow-derived mesenchymal stem cells from patients with multiple sclerosis. Mult Scler. 16: 909-18.</li> <li>Marrinucci, D. et al. (2010) Cytomorphology of circulating colorectal tumor cells:a small case series. J Oncol. 2010: 861341.</li> <li>Kazane, S.A. et al. (2012) Site-specific DNA-antibody conjugates for specific and sensitive immuno-PCR. Proc Natl Acad Sci U S A. 109: 3731-6.</li> <li>Paul, G. et al. (2012) The adult human brain harbors multipotent perivascular</li> </ol>
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- 16. Ruiz, C. *et al.* (2015) Limited genomic heterogeneity of circulating melanoma cells in advanced stage patients. <u>Phys Biol. 12 (1): 016008</u>.
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- 18. GarikipatiV, N.S. *et al.* (2018) Isolation and characterization of mesenchymal stem cells from human fetus heart. PLoS One. 13 (2): e0192244.
- 19. Shishido, S.N. *et al.* (2019) Circulating tumor cells as a response monitor in stage IV non-small cell lung cancer. J Transl Med. 17 (1): 294.
- 20. Welter, L. *et al.* (2020) Treatment response and tumor evolution: Lessons from an extended series of multi-analyte liquid biopsies in a metastatic breast cancer patient. <u>Cold Spring Harb Mol Case Stud. Nov 17 [Epub ahead of print].</u>

#### **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: 10041: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf</a>
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
 Worldwide
 Tel: +44 (0)1865 852 700

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739

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

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M384798:210513'

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