

Datasheet: MCA87B

Description:	MOUSE ANTI HUMAN CD45:Biotin
Specificity:	CD45
Other names:	LCA
Format:	Biotin
Product Type:	Monoclonal Antibody
Clone:	F10-89-4
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	▪			

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 conjugated to Biotin - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A 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**

UniProt:

[P08575](#) [Related reagents](#)

Entrez Gene:

[5788](#) PTPRC [Related reagents](#)

Synonyms

CD45

RRID

AB_323920

Fusion Partners

Spleen cells from immunised 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.

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 10⁶ cells in 100ul.

References

1. Dalchau, R. *et al.* (1980) Monoclonal antibody to a human leukocyte-specific membrane glycoprotein probably homologous to the leukocyte-common (L-C) antigen of the rat. [Eur J Immunol. 10 \(10\): 737-44.](#)
2. Quenby, S *et al.* (1999) Pre-implantation endometrial leukocytes in women with recurrent miscarriage. [Human Reprod. 14\(9\):2386-2391.](#)
3. 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.](#)
4. 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.](#)
5. Marrinucci, D. *et al.* (2010) Cytomorphology of circulating colorectal tumor cells:a small case series. [J Oncol. 2010: 861341.](#)
6. 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.](#)
7. Paul, G. *et al.* (2012) The adult human brain harbors multipotent perivascular mesenchymal stem cells. [PLoS One. 7: e35577.](#)
8. Sadarangani, A. *et al.* (2015) GLI2 inhibition abrogates human leukemia stem cell dormancy. [J Transl Med. 13: 98.](#)
9. Gunawardene, P. *et al.* (2015) Association Between Circulating Osteogenic Progenitor

Cells and Disability and Frailty in Older Persons: The Nepean Osteoporosis and Frailty Study. [J Gerontol A Biol Sci Med Sci. pii: glv190.](#)

10. Gogoi P *et al.* (2016) Development of an Automated and Sensitive Microfluidic Device for Capturing and Characterizing Circulating Tumor Cells (CTCs) from Clinical Blood Samples. [PLoS One. 11 \(1\): e0147400.](#)

11. Spaas, J.H. *et al.* (2013) Culture and characterisation of equine peripheral blood mesenchymal stromal cells. [Vet J. 195 \(1\): 107-13.](#)

12. Gomiero, C. *et al.* (2016) Tenogenic induction of equine mesenchymal stem cells by means of growth factors and low-level laser technology. [Vet Res Commun. 40 \(1\): 39-48.](#)

13. 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.](#)

14. Bianchessi, M. *et al.* (2016) Effect of Fibroblast Growth Factor 2 on Equine Synovial Fluid Chondroprogenitor Expansion and Chondrogenesis. [Stem Cells Int. 2016: 9364974.](#)

15. Mohamed Suhaimi, N.A. *et al.* (2015) Non-invasive sensitive detection of KRAS and BRAF mutation in circulating tumor cells of colorectal cancer patients. [Mol Oncol. 9 \(4\): 850-60.](#)

16. Ruiz, C. *et al.* (2015) Limited genomic heterogeneity of circulating melanoma cells in advanced stage patients. [Phys Biol. 12 \(1\): 016008.](#)

17. Branly, T. *et al.* (2017) Characterization and use of Equine Bone Marrow Mesenchymal Stem Cells in Equine Cartilage Engineering. Study of their Hyaline Cartilage Forming Potential when Cultured under Hypoxia within a Biomaterial in the Presence of BMP-2 and TGF- β 1. [Stem Cell Rev. Jun 09 \[Epub ahead of print\].](#)

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. [Cold Spring Harb Mol Case Stud. Nov 17 \[Epub ahead of print\].](#)

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.

Guarantee	12 months from date of despatch
------------------	---------------------------------

Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
--------------------------------------	---

Regulatory	For research purposes only
-------------------	----------------------------

Related Products

Recommended Useful Reagents

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

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

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

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

'M381501:210512'

Printed on 22 Oct 2021

© 2021 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)