

## Datasheet: MCA87PE

|                      |                           |
|----------------------|---------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD45:RPE |
| <b>Specificity:</b>  | CD45                      |
| <b>Other names:</b>  | LCA                       |
| <b>Format:</b>       | RPE                       |
| <b>Product Type:</b> | Monoclonal Antibody       |
| <b>Clone:</b>        | F10-89-4                  |
| <b>Isotype:</b>      | IgG2a                     |
| <b>Quantity:</b>     | 100 TESTS                 |

## 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](http://www.bio-rad-antibodies.com/protocols).

|                | 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                                                                                                  |                      |                   |
| Species Cross Reactivity | Reacts with: Horse<br><b>N.B.</b> Antibody reactivity and working conditions may vary between species. |                      |                   |
| Product Form             | Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized                                        |                      |                   |
| Reconstitution           | Reconstitute with 1 ml distilled water                                                                 |                      |                   |
| Max Ex/Em                | Fluorophore                                                                                            | Excitation Max (nm)  | Emission Max (nm) |
|                          | RPE 488nm laser                                                                                        | 496                  | 578               |
| 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 |                   |
|                          | 5%                                                                                                     | Sucrose              |                   |
| Immunogen                | Human T lymphocytes.                                                                                   |                      |                   |

**External Database  
Links**

**UniProt:**

[P08575](#)   [Related reagents](#)

**Entrez Gene:**

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

**Synonyms**

CD45

**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 the leucocyte common antigen (LCA). CD45 is a complex molecule existing in a number of isoforms.

Antibodies recognising a common epitope on all of these isoforms are termed CD45 whilst those recognising 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  $10^6$  cells or 100ul whole blood

**References**

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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.](#)
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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- $\beta$ 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.](#)

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**Storage**

Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life**

12 months from date of reconstitution.

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**Health And Safety Information**

Material Safety Datasheet documentation #10075 available at:  
10075: <https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:RPE \(MCA929PE\)](#)

### Recommended Useful Reagents

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

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

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