

Datasheet: MCA87PET

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

# **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="https://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				
Species Cross Reactivity	Reacts with: Horse  N.B. Antibody reactivity and working conditions may vary between species.				
Product Form	Purified IgG conjugate	ed to R. Phycoerythrir	n (RPE) - lyophilized		
Reconstitution	Reconstitute in 0.25 n	nl disilled water			
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)		
	RPE 488nm laser	496	578		
Preparation	Purified IgG prepared	by affinity chromatog	raphy on Protein A		
Buffer Solution	Phosphate buffered s	aline			
Preservative	0.09% Sodium Azide				
Stabilisers	1% Bovine Serum	Albumin			
	5% Sucrose				
Immunogen	Human T lymphocyte	S.			

# 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 10 $\mathrm{ul}$  of the suggested working dilution to label  $10^6$  cells or 100 $\mathrm{ul}$  whole blood

#### 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. <u>Eur J Immunol.</u> 10 (10): 737-44.
- 2. Quenby, S *et al.* (1999) Pre-implantation endometrial leukocytes in women with recurrent miscarriage. <u>Human Reprod. 14(9):2386-2391.</u>
- 3. Hauser, P.V. *et al.* (2010) Stem cells derived from human amniotic fluid contribute to acute kidney injury recovery. <u>Am J Pathol. 177: 2011-21.</u>
- 4. Mallam, E. *et al.* (2010) Characterization of *in vitro* expanded bone marrow-derived mesenchymal stem cells from patients with multiple sclerosis. <u>Mult Scler. 16: 909-18.</u>
- 5. Marrinucci, D. *et al.* (2010) Cytomorphology of circulating colorectal tumor cells:a small case series. <u>J Oncol. 2010: 861341.</u>
- 6. Kazane, S.A. *et al.* (2012) Site-specific DNA-antibody conjugates for specific and sensitive immuno-PCR. <u>Proc Natl Acad Sci U S A. 109: 3731-6.</u>
- 7. Paul, G. *et al.* (2012) The adult human brain harbors multipotent perivascular mesenchymal stem cells. <u>PLoS One. 7: e35577.</u>
- 8. Sadarangani, A. *et al.* (2015) GLI2 inhibition abrogates human leukemia stem cell dormancy. <u>J Transl Med. 13: 98.</u>
- 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. <u>J Gerontol A Biol Sci Med Sci. pii: glv190.</u>
- 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. <u>PLoS One. 11 (1): e0147400.</u>
- 11. Spaas, J.H. *et al.* (2013) Culture and characterisation of equine peripheral blood mesenchymal stromal cells. <u>Vet J. 195 (1): 107-13.</u>

- 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. <u>Stem Cells Int. 2016</u>: 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-β1. <u>Stem Cell Rev. Jun 09 [Epub ahead of print].</u>
- 18. GarikipatiV, N.S. *et al.* (2018) Isolation and characterization of mesenchymal stem cells from human fetus heart. <u>PLoS One. 13 (2): e0192244.</u>

#### **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.

Shelf Life	12 months from date of reconstitution.
Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf</a>
Regulatory	For research purposes only

### Related Products

# **Recommended Negative Controls**

MOUSE IgG2a NEGATIVE CONTROL: RPE (MCA929PE)

#### Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

North & South America

North & South Tel: +1 800 265 7376

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

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

Fax: +1 919 878 3751

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

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

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

'M306402:170607'

Printed on 17 May 2018