

Datasheet: MCA87A700T

### **BATCH NUMBER 0314**

Description:	MOUSE ANTI HUMAN CD45:Alexa Fluor® 700
Specificity:	CD45
Other names:	LCA
Format:	ALEXA FLUOR® 700
Product Type:	Monoclonal Antibody
Clone:	F10-89-4
Isotype:	lgG2a
Quantity:	25 TESTS/0.25ml

## **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 - 1/10

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	Reacts with: Horse	•			
Reactivity	<b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.				
Product Form	Purified IgG conjug	gated to Alexa Fluor® 70	0 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)		
	Alexa Fluor®700	702	723		
Preparation	Purified IgG prepar supernatant	red by affinity chromatog	raphy on Protein G from tissue culture		

0.09% Sodium Azide
1% Bovine Serum Albumin
IgG concentration 0.05 mg/ml
Human T lymphocytes.
UniProt:
P08575 Related reagents
Entrez Gene:
5788 PTPRC Related reagents
CD45
AB_1102054
Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS-1 myeloma cell line.
<b>Mouse anti Human CD45 antibody, clone F10-89-4</b> 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
Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood.
1. 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> 2. Quenby, S <i>et al.</i> (1999) Pre-implantation endometrial leukocytes in women with recurrent miscarriage. <u>Human Reprod. 14(9):2386-2391.</u> 3. 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>

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. <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. PLoS One. 7: e35577.
- 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.</u> 11 (1): e0147400.
- 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. <u>Vet Res Commun. 40 (1): 39-48.</u>
- 13. De Schauwer, C. *et al.* (2012) In search for cross-reactivity to immunophenotype equine mesenchymal stromal cells by multicolor flow cytometry. <u>Cytometry A. 81 (4):</u> 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. <u>Mol Oncol. 9 (4):</u> 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. 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. <u>PLoS One</u>. 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. <u>J Transl Med. 17 (1): 294.</u>
- 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

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee	12 months from date of despatch
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA87A700T">https://www.bio-rad-antibodies.com/SDS/MCA87A700T</a> 10041
Regulatory	For research purposes only

# **Related Products**

## **Recommended Negative Controls**

MOUSE IgG2a NEGATIVE CONTROL: Alexa Fluor® 700 (MCA929A700)

### **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

Tel: +44 (0)1865 852 700 Worldwide

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 'M369064:200529'

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