

# Datasheet: MCA596PE BATCH NUMBER 164621

Description:	MOUSE ANTI HUMAN CD14:RPE
Specificity:	CD14
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	UCHM1
Isotype:	IgG2a
Quantity:	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 <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			
Species Cross Reactivity	<b>N.B.</b> Antibody reactive reactivity is derived f	from testing within our la	Monkey, Fish, Trout ons may vary between species. Cro aboratories, peer-reviewed publications. Please refer to references indica	ons o
Product Form	Purified IgG conjuga	ited to R. Phycoerythrin	(RPE) - lyophilized	
Reconstitution	Reconstitute with 1 ml distilled water			
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)	
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Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	<ul><li>0.09% Sodium Azide</li><li>1% Bovine Serum Albumin</li><li>5% Sucrose</li></ul>	
Immunogen	Human Thymocytes followed by peripheral blood mononuclear cells.	
External Database Links	UniProt: P08571 Related reagents  Entrez Gene: 929 CD14 Related reagents	
RRID	AB_321316	
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells from the NS1-Ag4/1 mouse myeloma line.	
Specificity	Mouse anti Human CD14 antibody, clone UCHM1 recognizes a cell surface antigen of ~55 kDa, known as CD14. The CD14 molecule is found predominantly on monocytes and macrophages in flow cytometry, it is less strongly expressed on granulocytes, and is absent from stem cells and myeloid cells of very early differentiation states. In immunohistology the CD14 molecule is found to be present on Langerhans cells, follicular dendritic cells, histiocytes and high endothelial venules. Antibodies to the CD14 molecule are known to induce oxidative burst formation. In tonsil tissue sections UCHM1 gives positive staining reactions with monocytic cells, the interfollicular tissue macrophages seen under the capsule, and dendritic reticulum cells. Skin Langerhans cells are always negative (Hogg et al. 1984). UCHM1 also reacts with Kupffer cells and sinus lining cells on the liver.	
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.	
References	1. Linch, D.C. <i>et al.</i> (1984) Monoclonal antibodies differentiating between monocytic and nonmonocytic variants of AML. Blood. 63 (3): 566-73.	

- nonmonocytic variants of AML. <u>Blood. 63 (3): 566-73.</u>
- 2. Hogg, N. & Horton, M.A. (1987) Myeloid antigens: new and previously defined clusters in Leucocyte Typing III White Cell differentiation antigens. Edited by McMichael, A.J., et al.
- 3. Jonker, M. et al. (1989) Reactivity of mAb specific for human CD markers with Rhesus monkey leucocytes. Leucocyte Typing IV. Oxford University Press p 1058-63.
- 4. Hsu, T.L. et al. (2002) Modulation of dendritic cell differentiation and maturation by decoy receptor 3. J Immunol. 168: 4846-53.
- 5. Karlsson, H. et al. (2002) Innate immune responses of human neonatal cells to bacteria from the normal gastrointestinal flora. Infect Immun. 70: 6688-96.
- 6. Kämmerer, U. et al. (2003) Unique appearance of proliferating antigen-presenting cells expressing DC-SIGN (CD209) in the decidua of early human pregnancy. Am J Pathol. 162: 887-96.
- 7. Köller, M. et al. (2004) Phenotypic and functional deficiencies of monocyte-derived

- dendritic cells in systemic lupus erythematosus (SLE) patients. Int Immunol. 16: 1595-604.
- 8. Goddard, S. *et al.* (2004) Interleukin-10 secretion differentiates dendritic cells from human liver and skin. <u>Am J Pathol. 164: 511-9.</u>
- 9. Chang, Y.C. *et al.* (2004) Modulation of macrophage differentiation and activation by decoy receptor 3. <u>J Leukoc Biol. 75: 486-94.</u>
- 10. Lin, C.W. *et al.* (2005) CD94 1A transcripts characterize lymphoblastic lymphoma/leukemia of immature natural killer cell origin with distinct clinical features. Blood. 106: 3567-74.
- 11. Angel, C.E. *et al.* (2006) Cutting edge: CD1a+ antigen-presenting cells in human dermis respond rapidly to CCR7 ligands. <u>J Immunol. 176 (10): 5730-4.</u>
- 12. Fischer, U. and Koellner, B. (2007) Cross-reactivity of human leukocyte differentiation antigen monoclonal antibodies on carp and rainbow trout cells. <u>Vet Immunol Immunopathol</u>. 119: 142-55.
- 13. Bournazos, S. *et al.* (2008) Monocyte functional responsiveness after PSGL-1-mediated platelet adhesion is dependent on platelet activation status. <u>Arterioscler Thromb</u> Vasc Biol. 28: 1491-8.
- 14. Iking-Konert, C. *et al.* (2008) T lymphocytes in patients with primary vasculitis: expansion of CD8+ T cells with the propensity to activate polymorphonuclear neutrophils. Rheumatology (Oxford). 47: 609-16.
- 15. Angel, C.E. *et al.* (2009) Distinctive localization of antigen-presenting cells in human lymph nodes. Blood. 113: 1257-67.
- 16. Brook, F.A. *et al.* (2010) Derivation and characterisation of the human embryonic stem cell line, OxF1. *In Vitro* Cell Dev Biol Anim. 46: 173-7.
- 17. Hovden, A.O. *et al.* (2011) Maturation of monocyte derived dendritic cells with OK432 boosts IL-12p70 secretion and conveys strong T-cell responses. <u>BMC Immunol. 12:2.</u>
- 18. Din JN *et al.* (2013) Effect of  $\omega$ -3 fatty acid supplementation on endothelial function, endogenous fibrinolysis and platelet activation in male cigarette smokers. <u>Heart. 99 (3):</u> 168-74.
- 19. Bromberek, J.L. *et al.* (2016) Breed Distribution and Clinical Characteristics of B Cell Chronic Lymphocytic Leukemia in Dogs. <u>J Vet Intern Med. 30 (1): 215-22.</u>
- 20. Spiller, K.L. *et al.* (2016) Differential gene expression in human, murine, and cell line-derived macrophages upon polarization. <u>Exp Cell Res. 347 (1): 1-13.</u>
- 21. Kannegieter, N.M. *et al.* (2018) Analysis of NFATc1 amplification in T cells for pharmacodynamic monitoring of tacrolimus in kidney transplant recipients. <u>PLoS One. 13</u> (7): e0201113.
- 22. Wu, T.C. *et al.* (2018) IL1 Receptor Antagonist Controls Transcriptional Signature of Inflammation in Patients with Metastatic Breast Cancer. <u>Cancer Res. 78 (18): 5243-58.</u>
- 23. Hoang, P.T. *et al.* (2018) Subtype Diversification and Synaptic Specificity of Stem Cell-Derived Spinal Interneurons. <u>Neuron. 100 (1): 135-149.e7.</u>
- 24. Matsusaka, K. *et al.* (2022) Distinct roles in phagocytosis of the early and late increases of cell surface calreticulin induced by oxaliplatin <u>Biochem Biophys Rep. 29: 101222.</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.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA596PE">https://www.bio-rad-antibodies.com/SDS/MCA596PE</a> 20487
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 Tel: +1 800 265 7376

America

Fax: +1 919 878 3751

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

 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 'M417286:230307'

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