

Datasheet: MCA80PE

Description:	MOUSE ANTI HUMAN CD1a:RPE
Specificity:	CD1a
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	NA1/34-HLK
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 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: Dog, Cynomolgus monkey N.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 ion exchange chromatography.		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1.0% Bovine Serum Albumin		
	5% Sucrose		
Immunogen	Human thymocytes		
External Database Links	UniProt:		

Entrez Gene:

[909](#) CD1A [Related reagents](#)

Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the NS1/1 Ag4.1 mouse myeloma cell line
Specificity	Mouse anti Human CD1a antibody, clone NA1/34-HLK recognizes the human CD1a cell surface glycoprotein, a ~49 kDa single pass type 1 transmembrane glycoprotein containing a single Ig-like domain, expressed in association with beta 2 microglobulin. CD1a is expressed strongly by cortical thymocytes, and also by Langerhans cells and interdigitating cells. CD1a is involved in the presentation of lipids and glycolipids to NK cells (Sloma <i>et al.</i> 2008).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	1. McMichael, A.J. <i>et al.</i> (1979) A human thymocyte antigen defined by a hybrid myeloma monoclonal antibody. Eur J Immunol. 9 (3): 205-10. 2. Poulter, L.W. <i>et al.</i> (1986) Discrimination of human macrophages and dendritic cells by means of monoclonal antibodies. Scand J Immunol. 24 (3): 351-7. 3. Galkowska, H. <i>et al.</i> (1996) Reactivity of antibodies directed against human antigens with surface markers on canine leukocytes. Vet Immunol Immunopathol. 53 (3-4): 329-34. 4. Yoshino, N. <i>et al.</i> (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of cynomolgus monkeys (<i>Macaca fascicularis</i>) by using anti-human cross-reactive antibodies. Exp Anim. 49 (2): 97-110. 5. Hirbod, T. <i>et al.</i> (2010) Abundant expression of HIV target cells and C-type lectin receptors in the foreskin tissue of young Kenyan men. Am J Pathol. 176: 2798-805. 6. Liu, C.C. <i>et al.</i> (2008) Transient downregulation of monocyte-derived dendritic-cell differentiation, function, and survival during tumoral progression and regression in an <i>in vivo</i> canine model of transmissible venereal tumor. Cancer Immunol Immunother. 57: 479-91. 7. Sugiura K <i>et al.</i> (2010) Effect of IL-12 on canine dendritic cell maturation following differentiation induced by granulocyte-macrophage CSF and IL-4. Vet Immunol Immunopathol. 137 (3-4): 322-6. 8. Angel, C.E. <i>et al.</i> (2006) Distinctive localization of antigen-presenting cells in human lymph nodes. Blood. 113: 1257-67. 9. Bosco, M.C. <i>et al.</i> (2011) Hypoxia modulates the gene expression profile of immunoregulatory receptors in human mature dendritic cells: identification of TREM-1 as a novel hypoxic marker in vitro and <i>in vivo</i>. Blood. 117: 2625-39. 10. Buettner, M. <i>et al.</i> (2005) Inverse correlation of maturity and antibacterial activity in human dendritic cells. J Immunol. 174: 4203-9. 11. Cox, K. <i>et al.</i> (2005) Plasmacytoid dendritic cells (PDC) are the major DC subset innately producing cytokines in human lymph nodes. J Leukoc Biol. 78: 1142-52. 12. Mito, K. <i>et al.</i> (2010) IFN{gamma} markedly cooperates with intratumoral dendritic cell vaccine in dog tumor models. Cancer Res. 70: 7093-101. 13. Murray, S. <i>et al.</i> (2000) Diagnostic and therapeutic evaluation of an anti-Langerhans cell histiocytosis monoclonal antibody (NA1/34) in a new xenograft model. J Invest Dermatol. 114: 127-34. 14. Scheinecker, C. <i>et al.</i> (1998) Initiation of the autologous mixed lymphocyte reaction requires the expression of costimulatory molecules B7-1 and B7-2 on human peripheral blood dendritic cells. J Immunol. 161: 3966-73. 15. Wang, Y.S. <i>et al.</i> (2007) Characterization of canine monocyte-derived dendritic cells with phenotypic and functional differentiation. Can J Vet Res. 71: 165-74. 16. Elia, A.R. <i>et al.</i> (2008) Human dendritic cells differentiated in hypoxia down-modulate antigen

- uptake and change their chemokine expression profile. [J Leukoc Biol. 84: 1472-82.](#)
17. Fanales-Belasio, E. *et al.* (2009) HIV-1 Tat addresses dendritic cells to induce a predominant Th1-type adaptive immune response that appears prevalent in the asymptomatic stage of infection. [J Immunol. 182: 2888-97.](#)
18. Kaldensjö, T. *et al.* (2011) Detection of intraepithelial and stromal Langerin and CCR5 positive cells in the human endometrium: potential targets for HIV infection. [PLoS One. 6: e21344.](#)
19. Angel, C.E. *et al.* (2007) CD14+ antigen-presenting cells in human dermis are less mature than their CD1a+ counterparts. [Int Immunol. 19: 1271-9.](#)
20. Angel, C.E. *et al.* (2007) Comprehensive analysis of MHC-II expression in healthy human skin. [Immunol Cell Biol. 85: 363-9.](#)
21. Baharom F. *et al.* (2016) Dendritic Cells and Monocytes with Distinct Inflammatory Responses Reside in Lung Mucosa of Healthy Humans [The Journal of Immunology. May 2 \[Epub ahead of print\]](#)
22. Bonnefont-Rebeix, C. *et al.* (2016) Characterization of a novel canine T-cell line established from a spontaneously occurring aggressive T-cell lymphoma with large granular cell morphology. [Immunobiology. 221 \(1\): 12-22.](#)
23. Zegarska, B. *et al.* (2017) Changes of Langerhans cells during skin ageing. [Postepy Dermatol Alergol. 34 \(3\): 260-7.](#)

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: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
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	Tel: +1 800 265 7376 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
----------------------------------	--	------------------	--	---------------	--

'M300703:170106'

Printed on 01 Aug 2018