

## Datasheet: MCA80PET

<b>Description:</b>	MOUSE ANTI HUMAN CD1a:RPE
<b>Specificity:</b>	CD1a
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	NA1/34-HLK
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	25 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: Dog, Cynomolgus monkey <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 conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute in 0.25 ml disilled 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		

<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide 1.0% Bovine Serum Albumin 5% Sucrose
<b>Immunogen</b>	Human thymocytes
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P06126</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">909</a> CD1A <a href="#">Related reagents</a>
<b>RRID</b>	AB_1101140
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the NS1/1 Ag4.1 mouse myeloma cell line
<b>Specificity</b>	<b>Mouse anti Human CD1a antibody, clone NA1/34-HLK</b> 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).
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Poulter, L.W. <i>et al.</i> (1986) Discrimination of human macrophages and dendritic cells by means of monoclonal antibodies. <a href="#">Scand J Immunol. 24 (3): 351-7.</a></li> <li>2. 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. <a href="#">J Immunol. 161: 3966-73.</a></li> <li>3. 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. <a href="#">J Invest Dermatol. 114: 127-34.</a></li> <li>4. Buettner, M. <i>et al.</i> (2005) Inverse correlation of maturity and antibacterial activity in human dendritic cells. <a href="#">J Immunol. 174: 4203-9.</a></li> <li>5. Cox, K. <i>et al.</i> (2005) Plasmacytoid dendritic cells (PDC) are the major DC subset innately producing cytokines in human lymph nodes. <a href="#">J Leukoc Biol. 78: 1142-52.</a></li> <li>6. Angel, C.E. <i>et al.</i> (2006) Distinctive localization of antigen-presenting cells in human lymph nodes. <a href="#">Blood. 113: 1257-67.</a></li> <li>7. Wang, Y.S. <i>et al.</i> (2007) Characterization of canine monocyte-derived dendritic cells with phenotypic and functional differentiation. <a href="#">Can J Vet Res. 71: 165-74.</a></li> <li>8. Angel, C.E. <i>et al.</i> (2007) Comprehensive analysis of MHC-II expression in healthy human skin. <a href="#">Immunol Cell Biol. 85: 363-9.</a></li> <li>9. Angel, C.E. <i>et al.</i> (2007) CD14+ antigen-presenting cells in human dermis are less</li> </ol>

- mature than their CD1a+ counterparts. [Int Immunol. 19: 1271-9.](#)
10. Elia, A.R. *et al.* (2008) Human dendritic cells differentiated in hypoxia down-modulate antigen uptake and change their chemokine expression profile. [J Leukoc Biol. 84: 1472-82.](#)
  11. Liu, C.C. *et al.* (2008) Transient downregulation of monocyte-derived dendritic-cell differentiation, function, and survival during tumoral progression and regression in an *in vivo* canine model of transmissible venereal tumor. [Cancer Immunol Immunother. 57: 479-91.](#)
  12. 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.](#)
  13. Sugiura K *et al.* (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.](#)
  14. Mito, K. *et al.* (2010) IFN $\gamma$  markedly cooperates with intratumoral dendritic cell vaccine in dog tumor models. [Cancer Res. 70: 7093-101.](#)
  15. Hirbod, T. *et al.* (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.](#)
  16. 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.](#)
  17. Bosco, M.C. *et al.* (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 *in vivo*. [Blood. 117: 2625-39.](#)
  18. Baharom, F. *et al.* (2016) Dendritic Cells and Monocytes with Distinct Inflammatory Responses Reside in Lung Mucosa of Healthy Humans. [J Immunol. 196 \(11\): 4498-509.](#)
  19. 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.](#)
  20. Zegarska, B. *et al.* (2017) Changes of Langerhans cells during skin ageing. [Postepy Dermatol Alergol. 34 \(3\): 260-7.](#)
  21. Tomić, S. *et al.* (2018) Functionalization-dependent effects of cellulose nanofibrils on tolerogenic mechanisms of human dendritic cells. [Int J Nanomedicine. 13: 6941-60.](#)
  22. Guilliams, M. *et al.* (2016) Unsupervised High-Dimensional Analysis Aligns Dendritic Cells across Tissues and Species. [Immunity. 45 \(3\): 669-84.](#)

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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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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA80PET>

**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**

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