

# Datasheet: MCA80F BATCH NUMBER 151136

Description:	MOUSE ANTI HUMAN CD1a:FITC
Specificity:	CD1a
Format:	FITC
<b>Product Type:</b>	Monoclonal Antibody
Clone:	NA1/34-HLK
Isotype:	lgG2a
Quantity:	0.1 mg

# **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	Reacts with: Dog,	Cynomolgus monkey		
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 conju	ugated to Fluorescein Isotl	niocyanate Isomer 1	l (FITC) - liquid.
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm	)
	FITC	490	525	
Preparation	Purified IgG prepared by affinity chromatography on Protein A.			
Buffer Solution	Phosphate buffer	ed saline		

Preservative Stabilisers	0.09% Sodium Azide
	1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Human thymocytes
External Database	UniDuct
Links	UniProt:  P06126 Related reagents
	Entrez Gene:  909 CD1A Related reagents
RRID	AB_321222
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the NS1/1 Ag4.1
	mouse myeloma cell line
Specificity	<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).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
References	1. McMichael, A.J. <i>et al.</i> (1979) A human thymocyte antigen defined by a hybrid myeloma
	monoclonal antibody. <u>Eur J Immunol. 9 (3): 205-10.</u> 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.
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	with surface markers on canine leukocytes. <u>Vet Immunol Immunopathol. 53 (3-4): 329-34.</u>
	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
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	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
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differentiation, function, and survival during tumoral progression and regression in an *in vivo* canine model of transmissible venereal tumor. <u>Cancer Immunol Immunother. 57:</u>

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<u>479-91</u>.

lymph nodes. Blood. 113: 1257-67.

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- 11. Cox, K. *et al.* (2005) Plasmacytoid dendritic cells (PDC) are the major DC subset innately producing cytokines in human lymph nodes. <u>J Leukoc Biol. 78: 1142-52.</u>
- 12. Mito, K. *et al.* (2010) IFN{gamma} markedly cooperates with intratumoral dendritic cell vaccine in dog tumor models. Cancer Res. 70: 7093-101.
- 13. Murray, S. *et al.* (2000) Diagnostic and therapeutic evaluation of an anti-Langerhans cell histiocytosis monoclonal antibody (NA1/34) in a new xenograft model. <u>J Invest</u> Dermatol. 114: 127-34.
- 14. Scheinecker, C. *et al.* (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. *et al.* (2007) Characterization of canine monocyte-derived dendritic cells with phenotypic and functional differentiation. <u>Can J Vet Res. 71: 165-74.</u>
- 16. Elia, A.R. *et al.* (2008) Human dendritic cells differentiated in hypoxia down-modulate antigen uptake and change their chemokine expression profile. <u>J Leukoc Biol. 84:</u> 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. <u>J Immunol. 182: 2888-97.</u>
- 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. <u>PLoS One. 6:</u> e21344.
- 19. Angel, C.E. *et al.* (2007) CD14+ antigen-presenting cells in human dermis are less mature than their CD1a+ counterparts. <u>Int Immunol. 19: 1271-9.</u>
- 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 <u>The Journal of Immunology. May</u> 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. <a href="https://linearchy.com/
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- 24. Tomić, S. *et al.* (2018) Functionalization-dependent effects of cellulose nanofibrils on tolerogenic mechanisms of human dendritic cells. Int J Nanomedicine. 13: 6941-60.

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
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA80F">https://www.bio-rad-antibodies.com/SDS/MCA80F</a> 10041
Regulatory	For research purposes only

# **Related Products**

### **Recommended Negative Controls**

MOUSE IgG2a NEGATIVE CONTROL:FITC (MCA929F)

## **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M368998:200529'

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