

Datasheet: MCA80GA

BATCH NUMBER 156517

Description:	MOUSE ANTI HUMAN CD1a
Specificity:	CD1a
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	NA1/34-HLK
Isotype:	IgG2a
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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/50 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

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/positive controls.

Target Species

Human

Species Cross Reactivity

Reacts with: Dog, Cynomolgus monkey

N.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 - liquid

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture

supernatant

Buffer Solution Phosphate buffered saline

Preservative Stabilisers 0.09% Sodium Azide

Carrier Free Yes

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen Human thymocytes

External Database Links

UniProt:
[P06126](#) [Related reagents](#)

Entrez Gene:
[909](#) CD1A [Related reagents](#)

RRID AB_324090

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 *et al.* 2008).

Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

Histology Positive Control Tissue Skin

References

1. McMichael, A.J. *et al.* (1979) A human thymocyte antigen defined by a hybrid myeloma monoclonal antibody. [Eur J Immunol. 9 \(3\): 205-10.](#)
2. Poulter, L.W. *et al.* (1986) Discrimination of human macrophages and dendritic cells by means of monoclonal antibodies. [Scand J Immunol. 24 \(3\): 351-7.](#)
3. Galkowska, H. *et al.* (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. *et al.* (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of cynomolgus monkeys (*Macaca fascicularis*) by using anti-human cross-reactive antibodies. [Exp Anim. 49 \(2\): 97-110.](#)
5. 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.](#)

6. 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.](#)
7. 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.](#)
8. Angel, C.E. *et al.* (2006) Distinctive localization of antigen-presenting cells in human lymph nodes. [Blood. 113: 1257-67.](#)
9. 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.](#)
10. Buettner, M. *et al.* (2005) Inverse correlation of maturity and antibacterial activity in human dendritic cells. [J Immunol. 174: 4203-9.](#)
11. Cox, K. *et al.* (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. *et al.* (2010) IFN γ 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. [J Invest 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. [Can J Vet Res. 71: 165-74.](#)
16. 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.](#)
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.](#)

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. 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 #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA80GA>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (STAR77...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

North & South Tel: +1 800 265 7376

America 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

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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