

Datasheet: MCA1582T

Description:	MOUSE ANTI HUMAN CD83
Specificity:	CD83
Other names:	HB15
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	HB15e
Isotype:	IgG1
Quantity:	20 µg

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	▪			1/500 - 1/1000
Immunohistology - Paraffin (1)	▪			1/50
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 negative/positive controls.

(1) This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase.

Target Species	Human
Species Cross Reactivity	Reacts with: Cynomolgus monkey, Chimpanzee, Baboon, Rhesus Monkey, Tasmanian Devil N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G 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	Cos cells transfected with HB15 cDNA.
External Database Links	<p>UniProt: Q01151 Related reagents</p> <p>Entrez Gene: 9308 CD83 Related reagents</p>
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	<p>Mouse anti Human CD83 antibody, clone HB15e recognizes the human CD83 cell surface antigen, a 40-45 kDa glycoprotein expressed by peripheral blood dendritic cells. Peripheral lymphocytes can be induced to express very low levels of CD83 after culture in agents such as Con A or PHA.</p> <p>In immunohistology CD83 is shown to be expressed strongly by interfollicular interdigitating reticulum cells and more weakly by cells within germinal centres. CD83 is also expressed by Langerhan's cells in the skin. The CD83 antigen is a 186-amino-acid single-chain glycoprotein. This molecule is a member of the immunoglobulin superfamily and is composed of an extracellular V-type Ig-like single domain, a transmembrane region, and a short, 40-amino-acid cytoplasmic tail. CD83 antigen undergoes extensive post-translational glycosylation, since the determined Mr is twice the predicted size of the core protein (Zhou et al. 1992).</p> <p>However, CD83+ cells have a unique cell surface immuno-phenotype that does not correlate with that of T cells, B cells, NK cells, or cells of the myelomonocytic lineage (Zhou et al. 1995). CD83+ cells co-express the highest levels of MHC class II molecules, when compared with other leucocyte lineages. They also co-express T cell markers (CD2, CD5), B cell markers (CD40, CD78), myeloid cell markers (CD13, CD33, CD36), cytokine receptors as well as other cell surface molecules (Zhou et al. 1995) and (Zhou and Tedder 1995).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
Histology Positive Control Tissue	Human Tonsil
References	<ol style="list-style-type: none"> Zhou, L.J. <i>et al.</i> (1992) A novel cell-surface molecule expressed by human interdigitating reticulum cells, Langerhans cells, and activated lymphocytes is a new member of the Ig superfamily. J Immunol. 149 (2): 735-42. Zhou, L.J. & Tedder, T.F. (1995) Human blood dendritic cells selectively express CD83, a member of the immunoglobulin superfamily. J Immunol. 154 (8): 3821-35. Zhou, L.J. & Tedder, T.F. (1995) A distinct pattern of cytokine gene expression by human CD83+ blood dendritic cells. Blood. 86 (9): 3295-301. Denniston, A.K. <i>et al.</i> (2011) Endogenous Cortisol and TGF-β in Human Aqueous Humor Contribute to Ocular Immune Privilege by Regulating Dendritic Cell Function. J Immunol. 186:305-11. Schlossman, S.F., <i>et al.</i> Eds. Engel, P. <i>et al.</i> (1995) 'CD83 Workshop report' in Leucocyte Typing V, White Cell Differentiation Antigens, Oxford University Press pp. 693-5. 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.

7. Hesselink, D.A. *et al.* (2005) The effects of renal transplantation on circulating dendritic cells. [Clin Exp Immunol. 140: 384-93.](#)
8. Hovden, A.O. *et al.* (2011) Maturation of monocyte derived dendritic cells with OK432 boosts IL-12p70 secretion and conveys strong T-cell responses. [BMC Immunol. ; 12:2.](#)
9. Ifergan, I. *et al.* (2008) The blood-brain barrier induces differentiation of migrating monocytes into Th17-polarizing dendritic cells. [Brain. 131: 785-99.](#)
10. Walker, J.G. *et al.* (2007) Characterisation of a dendritic cell subset in synovial tissue which strongly expresses Jak/STAT transcription factors from patients with rheumatoid arthritis. [Ann Rheum Dis. 66: 992-9.](#)
11. 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.](#)
12. Denniston, A.K. *et al.* (2012) Aqueous humor suppression of dendritic cell function helps maintain immune regulation in the eye during human uveitis. [Invest Ophthalmol Vis Sci. 53 \(2\): 888-96.](#)
13. Shikotra, A. *et al.* (2012) Increased expression of immunoreactive thymic stromal lymphopoietin in patients with severe asthma. [J Allergy Clin Immunol. 129: 104-11.e1-9.](#)
14. Sprater, F. *et al.* (2012) Expression of ESE-3 Isoforms in Immunogenic and Tolerogenic Human Monocyte-Derived Dendritic Cells [PLoS One. 7: e49577.](#)
15. Howson, L.J. *et al.* (2014) Identification of dendritic cells, B cell and T cell subsets in Tasmanian devil lymphoid tissue; evidence for poor immune cell infiltration into devil facial tumors. [Anat Rec \(Hoboken\). 297: 925-38.](#)
16. Eren U *et al.* (2016) The several elements of intestinal innate immune system at the beginning of the life of broiler chicks. [Microsc Res Tech. Apr 26. \[Epub ahead of print\]](#)
17. Wang, P. *et al.* (2016) Distribution and expression profiles of dendritic cell subpopulations in human bladder cancer. [Int J Clin Exp Pathol 9\(7\):7180-7.](#)
18. Van Vré, E.A. *et al.* (2011) Immunohistochemical characterisation of dendritic cells in human atherosclerotic lesions: possible pitfalls. [Pathology. 43 \(3\): 239-47.](#)
19. Duan, Y.G. *et al.* (2016) Characterisation of dendritic cell subsets in chronically inflamed human epididymis. [Andrologia. 48 \(4\): 431-40.](#)

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.
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Shelf Life	18 months from date of despatch.
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Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Human Anti Mouse IgG1 (HCA036...) [HRP](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#),
[DyLight@649](#), [DyLight@680](#), [DyLight@800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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
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Printed on 01 Aug 2018

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