

Datasheet: MCA1582T

BATCH NUMBER 164014

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 product 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 product 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, Sheep

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 (NaN ₃)
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>
RRID	AB_324789
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 10µl of the suggested working dilution to label 10⁶cells in 100µl

**Histology Positive
Control Tissue**

Human tonsil

References

1. Zhou, L.J. *et al.* (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.](#)
2. 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.](#)
3. Schlossman, S.F., *et al.* Eds. Engel, P. *et al.* (1995) 'CD83 Workshop report' in Leucocyte Typing V, White Cell Differentiation Antigens, Oxford University Press pp. 693-5.
4. Hesselink, D.A. *et al.* (2005) The effects of renal transplantation on circulating dendritic cells. [Clin Exp Immunol. 140: 384-93.](#)
5. 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.](#)
6. Ifergan, I. *et al.* (2008) The blood-brain barrier induces differentiation of migrating monocytes into Th17-polarizing dendritic cells. [Brain. 131: 785-99.](#)
7. Denniston, A.K. *et al.* (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.](#)
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. Van Vré, E.A. *et al.* (2011) Immunohistochemical characterisation of dendritic cells in human atherosclerotic lesions: possible pitfalls. [Pathology. 43 \(3\): 239-47.](#)
10. Silk, K.M. *et al.* (2012) Rapamycin conditioning of dendritic cells differentiated from human ES cells promotes a tolerogenic phenotype. [J Biomed Biotechnol. 2012: 172420.](#)
11. Sprater, F. *et al.* (2012) Expression of ESE-3 Isoforms in Immunogenic and Tolerogenic Human Monocyte-Derived Dendritic Cells [PLoS One. 7: e49577.](#)
12. 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.](#)
13. 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.](#)
14. 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.](#)
15. 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. 79 \(7\): 604-14.](#)
16. 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.](#)
17. Duan, Y.G. *et al.* (2016) Characterisation of dendritic cell subsets in chronically inflamed human epididymis. [Andrologia. 48 \(4\): 431-40.](#)
18. Pérez-caballero, R. *et al.* (2018) Comparative dynamics of peritoneal cell immunophenotypes in sheep during the early and late stages of the infection with *Fasciola hepatica* by flow cytometric analysis. [Parasit Vectors. 11 \(1\): 640.](#)

19. Arya, S. *et al.* (2019) Quantitative proteomic changes in LPS-activated monocyte-derived dendritic cells: A SWATH-MS study. [Sci Rep. 9 \(1\): 4343.](#)
20. Yildiz, M. *et al.* (2019) Histological and immunohistochemical studies of the proximal caecum and caecal tonsils of quail (*Coturnix coturnix japonica*). [Anat Histol Embryol. 48 \(5\): 476-85.](#)
21. Eren, U. *et al.* (2022) TLR2 and TLR4 molecules and antigen-presenting cell compositions in cecal tonsils of broiler chicks (*Gallus gallus domesticus*.) in the first two weeks of the post-hatch period. [Anat Histol Embryol. 51 \(1\): 125-35.](#)
22. Barbieri, S. *et al.* (2022) Does smoking habit affect dendritic cell expression in oral squamous cell carcinoma? [Braz Oral Res. 36: e044.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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/MCA1582T>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- 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 (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

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
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M414884:221214'

Printed on 21 Feb 2024

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)