

## Datasheet: MCA1582PE

<b>Description:</b>	MOUSE ANTI HUMAN CD83:RPE
<b>Specificity:</b>	CD83
<b>Other names:</b>	HB15
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	HB15e
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 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 - 1/5

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.

#### 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 conjugated to R. Phycoerythrin (RPE) - lyophilized

#### Reconstitution

Reconstitute with 1 ml distilled water

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
	RPE 561nm laser	546	578

<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	1% bovine serum albumin 5% sucrose
<b>Immunogen</b>	Cos cells transfected with HB15 cDNA.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q01151</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">9308</a>    CD83    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_323389
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD83 antibody, clone HB15e</b> 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 (<a href="#">Zhou et al. 1992</a>).</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 (<a href="#">Zhou et al. 1995</a>). 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 (<a href="#">Zhou et al. 1995</a>) and <a href="#">Zhou and Tedder 1995</a>).</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	1. 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.](#)
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.](#)
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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.](#)
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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.](#)
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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.](#)

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<b>Storage</b>	Prior to reconstitution store at +4°C. After 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.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1582PE">https://www.bio-rad-antibodies.com/SDS/MCA1582PE</a> 20487
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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'M437904:250320'

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