

Datasheet: MCA1582PE

BATCH NUMBER 166609

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

	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

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) 1% bovine serum albumin 5% sucrose
Immunogen	Cos cells transfected with HB15 cDNA.
External Database Links	UniProt: Q01151 Related reagents Entrez Gene: 9308 CD83 Related reagents
RRID	AB_323389
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	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. 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). 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).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
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.](#)
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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.](#)
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 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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22. Barbieri, S. *et al.* (2022) Does smoking habit affect dendritic cell expression in oral squamous cell carcinoma? [Braz Oral Res. 36: e044.](#)

Storage	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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA1582PE
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

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

Recommended Useful Reagents

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

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

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M426550:240201'

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