

Datasheet: MCA1582T

BATCH NUMBER 173146

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.](#)
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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.](#)
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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.](#)
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.](#)

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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	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
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

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

Recommended Negative Controls

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

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

'M437903:250320'

