

Datasheet: MCA1582

BATCH NUMBER 149726

Description:	MOUSE ANTI HUMAN CD83
Specificity:	CD83
Other names:	HB15
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	HB15e
Isotype:	IgG1
Quantity:	0.2 mg

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 - 1/100
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
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
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Species Cross Reactivity	<p>Reacts with: Cynomolgus monkey, Chimpanzee, Baboon, Rhesus Monkey, Tasmanian Devil, Sheep</p> <p>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</p>
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further information.

Product Form	Purified IgG - liquid
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Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
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Buffer Solution	Phosphate buffered saline
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Preservative Stabilisers	0.09% Sodium Azide
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Carrier Free	Yes
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Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
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Immunogen	Cos cells transfected with HB15 cDNA.
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External Database Links	UniProt: Q01151 Related reagents Entrez Gene: 9308 CD83 Related reagents
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RRID	AB_321773
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Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
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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,</p>
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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 10ul of the suggested working dilution to label 10⁶cells in 100ul.

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. 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.](#)
4. 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.](#)
5. 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.
6. Yoshino, N. *et al.* (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of cynomolgus monkeys (*Macaca fascicularis*) 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. 79 \(7\): 604-14.](#)

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.](#)
20. Arya, S. *et al.* (2019) Quantitative proteomic changes in LPS-activated monocyte-derived dendritic cells: A SWATH-MS study. [Sci Rep. 9 \(1\): 4343.](#)
21. 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.](#)
22. 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.](#)
23. 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.](#)

Storage	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>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.</p>
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/MCA1582 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
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 (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South Tel: +1 800 265 7376

America 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
'M365506:200529'

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