

Datasheet: MCA1582GA

BATCH NUMBER 158899

Description:	MOUSE ANTI HUMAN CD83	
Specificity:	CD83	
Other names:	HB15	
Format:	Purified	
Product Type:	Monoclonal Antibody	
Clone:	HB15e	
Isotype:	lgG1	
Quantity:	0.1 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.

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Species Cross
Reactivity

Target Species

Human

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
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Cos cells transfected with HB15 cDNA.
External Database Links	UniProt: Q01151 Related reagents Entrez Gene: 9308 CD83 Related reagents
RRID	AB_323517
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 (<u>Zhou et al.1995</u>) and <u>Zhou and Tedder 1995</u>).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶cells in 100ul.

Histology Positive Control Tissue

Human Tonsil

References

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- 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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- 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.
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- 9. Ifergan, I. *et al.* (2008) The blood-brain barrier induces differentiation of migrating monocytes into Th17-polarizing dendritic cells. <u>Brain. 131: 785-99.</u>
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- 11. Köller, M. *et al.* (2004) Phenotypic and functional deficiencies of monocyte-derived dendritic cells in systemic lupus erythematosus (SLE) patients. <u>Int Immunol. 16: 1595-604.</u>
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- 13. Shikotra, A. *et al.* (2012) Increased expression of immunoreactive thymic stromal lymphopoietin in patients with severe asthma. <u>J Allergy Clin Immunol.</u> 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.
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- 16. 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.

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- 19. Van Vré, E.A. *et al.* (2011) Immunohistochemical characterisation of dendritic cells in human atherosclerotic lesions: possible pitfalls. Pathology. 43 (3): 239-47.
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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/MCA1582GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)

Goat Anti Mouse IgG IgA IgM (STAR87...)

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...) <u>FITC</u>

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
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M390600:210923'

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