

Mouse anti-Human CD83 Monoclonal Antibody | anti-CD83 antibody

MOUSE ANTI HUMAN CD83

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA12282	Mouse	Human	Flow Cytometry, Functional Assay, Immunohistochemistry, Immunohistochemistry, Immunoprecipitation, Immunofluorescence

PRODUCT SYNONYMS

CD83; Monoclonal Antibody; MOUSE ANTI HUMAN CD83; CD83 antibody|HB15e; anti-CD83 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Clone Number	HB15e
Specificity	CD83
Form/Format	Purified IgG, liquid. Phosphate buffered saline Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Concentration	IgG concentration 1.0mg/ml (varies by lot)
Applicable Applications for anti-CD83 antibody	FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), IHC (Immunohistochemistry), IP (Immunoprecipitation), IF (Immunofluorescence)
Application Notes	FC/FACS: 1/50-1/100 (IHC)-Frozen: 1/500-1/1000 (IHC)-Paraffin: Min Dilution: 1/50; Max Dilution: 1/50 (Pack Size: 20ug), 1/100 (Pack Size: 0.1mg, 0.2mg) FC/FACS: Use 10ul of the suggested working dilution to label 106cells in 100ul. Flow Cytometry: 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.Flow Cytometry
Species Cross-Reactivity	Cynomolgus monkey, Chimpanzee, Baboon, Rhesus Monkey, Tasmanian Devil, Sheep
Immunogen	Cos cells transfected with HB15 cDNA.
Preservative Stabilizers	0.09% Sodium Azide
Histology Positive Control Tissue	Human Tonsil
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line
Carrier Free	Yes
Preparation and Storage	Store at 4 degree C or at -20 degree C if preferred. This product should be stored undiluted. 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.



Application Data

Published customer image:Phycoerythrin conjugated Mouse anti Human CD83 antibody, clone HB15e used for the evaluation of CD83 expression on monocyte derived dendritic cells by flow cytometry.Phenotypic characterization of immunogenic and tolerogenic moDC populations by flow cytometry. Monocytes were negatively selected from PBMC using magnetic beads. Immature moDC were generated with IL-4 and GM-CSF for 6 days. 15d-PGJ2 (PGJ2 DC) and dexamethasone plus 1alpha,25-dihydroxyvitamin were added to generate tolerogenic moDC, respectively (PGJ2 DC and Dex/VD3 DC). To generate immunogenic moDC, immature moDC were stimulated for 24 h with LPS, polyI:C and a cytokine cocktail containing TNF-alpha, IL-1beta, IL-6 and PGE2, respectively. The phenotypes of the cells were analyzed by flow cytometry. Live cells were gated according to FSC/SSC. One representative experiment out of three is shown.From: Sprater F, Hovden A-O, Appel S (2012)Expression of ESE-3 Isoforms in Immunogenic and Tolerogenic Human Monocyte-Derived Dendritic Cells.PLoS ONE 7(11): e49577.



Application Data

Immunofluorescence staining of a human tonsil cryosection with Mouse anti Human CD83 antibody, clone HB15e , red in A and Mouse anti Human CD21 antibody, clone LB21 , green in B. The merged image is in C with nuclei counterstained blue using DAPI. High power



Application Data

Immunofluorescence staining of a human tonsil cryosection with Mouse anti Human CD83 antibody, clone HB15e , red in A and Mouse anti Human CD21 antibody, clone LB21 , green in B. The merged image is in C with nuclei counterstained blue using DAPI. Low power



Application Data

Immunoperoxidase staining of a human tonsil cryosection with Mouse anti Human CD83 antibody, clone HB15e followed by the Histar detection system . High power



Application Data

Immunoperoxidase staining of a human tonsil cryosection with Mouse anti Human CD83 antibody, clone HB15e followed by the Histar detection system . Medium power



Application Data

Immunoperoxidase staining of a human tonsil cryosection with Mouse anti Human CD83 antibody, clone HB15e followed by the Histar detection system . Low power

ADDITIONAL INFORMATION

Related Product Information for anti-CD83 antibody

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).

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.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/cd83-antibody-clone-hb15e-flow-cytometry-immunohistochemistry-immunohistochemistry-immunoprecipitation-immunofluorescence-elisa/12282>