

Monoclonal Antibody CD83

PN IM2069 – Purified – Freeze-dried – 0.2 mg – Clone HB15a

For Research Use Only. Not for use in diagnostic procedures.

SPECIFICITY

The CD83 molecule, first described as HB15 molecule (1), is a transmembrane glycoprotein of 45 kDa, with an extracellular V-type Ig-like domain (1, 2).

CD83 has been acknowledged as a specific marker of various subsets of dendritic cells (DCs) (2, 3). It is selectively expressed by:

- those mature DCs located in T cell areas of lymphoid tissues, which are known as interdigitating dendritic cells (IDCs) (1, 4).
- epidermal DCs known as Langerhans cells (LCs) (1).
- a subset of peripheral blood DCs (0.16% of total mononuclear cells) whose phenotype is described in Ref.3.

CD83 antigen has also been detected on activated B cells within germinal centers (1). Although the role of CD83 is not yet established, its restricted expression on antigen presenting cells (APCs) such as DCs and B lymphocytes suggests that CD83 may be one of the accessory molecules involved in T lymphocyte activation induced by APCs (1).

The relatively selective reactivity of HB15a monoclonal antibody has significantly facilitated the analysis of DC populations, especially using flow cytometry, on peripheral blood DCs (5 – 10), cord blood (11) and cell culture of DCs derived from monocytes (12) or from CD34 progenitors (13).

The HB15a monoclonal antibody has been assigned to the CD83 cluster of differentiation during the 5th International Workshop on Human Leucocyte Differentiation Antigens in Boston, U.S.A., in 1993 (2).

REAGENT

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Clone	HB15a
Isotype	IgG2b (Kappa)
Species	Mouse
Immunogen	COS cells transfected with the HB15 cDNA
Hybridoma	Myeloma NS1 x Balb/c spleen cells
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Buffer	1 mg/mL bovine serum albumin in phosphate-buffered saline

APPLICATION

Studies of CD83 positive cells
Flow cytometry.

STATEMENT OF WARNINGS

- Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
- Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
- Do not use antibody beyond the expiration date on the label.
- Avoid microbial contamination of reagents or incorrect results might occur.
- Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.

No preservative has been added.

REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).

The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.

The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.

In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

PROCEDURE

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

SELECTED RESEARCH REFERENCES

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13. Caux, C., Vanbervliet, B., Massacrier, C., Dezutter-Dambuyant, C., de Saint-Vis, B., Jacquet, C., Yoneda, K., Imamura, S., Schmitt, D., Banchereau, J., "CD34⁺ hematopoietic progenitors from human cord blood differentiate along two independent dendritic cell pathways in response to GM-CSF+TNF α ", 1996, J. Exp. Med., 184, 695-706

PRODUCT AVAILABILITY

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