



1P-677-T100

Monoclonal Antibody to CD83 Phycoerythrin (PE) conjugated (100 tests)

Clone:	HB15e
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody HB15e recognizes CD83, a 40-45 kDa type I glycoprotein expressed on mature dendritic cells. HLDA IV.; WS Code T 85
Regulatory Status:	RUO
Immunogen:	Human CD83-transfected Cos cells
Species Reactivity:	Human, Non-Human Primates
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD83 is a 40-45 kDa heavily glycosylated type I cell surface glycoprotein of immunoglobulin family. It is expressed on the surface of mature dendritic cells, Langerhans cells in the skin, and interdigitating reticulum cells in the lymphoid tissues. Low expression of CD83 has been reported in activated T and B cells. Cytoplasmic expression of CD83 can be detected also in monocytes and macrophages. CD83 is involved in modulation of antigen presentation. Soluble CD83 has immunoregulatory functions, it is able to down-regulate dendritic cell maturation and stimulation of T cells. In the developing immune system, release of soluble CD83 from dendritic cells upon stimulation by gram-positive or gram-negative bacteria has anti-allergic effect. Herpes simplex virus, on the other hand, causes CD83 degradation in mature dendritic cells.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
- *Loré K, Sönnernborg A, Broström C, Goh LE, Perrin L, McDade H, Stellbrink HJ, Gazzard B, Weber R, Napolitano LA, van Kooyk Y, Andersson J: Accumulation of DC-SIGN+CD40+ dendritic cells with reduced CD80 and CD86 expression in lymphoid tissue during acute HIV-1 infection. *AIDS*. 2002 Mar 29;16(5):683-92.
- *Cao W, Lee SH, Lu J: CD83 is preformed inside monocytes, macrophages and dendritic cells, but it is only stably expressed on activated dendritic cells. *Biochem J*. 2005 Jan 1;385(Pt 1):85-93.
- *Klein E, Koch S, Borm B, Neumann J, Herzog V, Koch N, Bieber T: CD83 localization in a recycling compartment of immature human monocyte-derived dendritic cells. *Int Immunol*. 2005 Apr;17(4):477-87.
- *Lundell AC, Andersson K, Josefsson E, Steinkasserer A, Rudin A: Soluble CD14 and CD83 from human neonatal antigen-presenting cells are inducible by commensal bacteria and suppress allergen-induced human neonatal Th2 differentiation. *Infect Immun*. 2007 Aug;75(8):4097-104.
- *Kummer M, Turza NM, Muhl-Zurbes P, Lechmann M, Boutell C, Coffin RS, Everett RD, Steinkasserer A, Prechtel AT: Herpes simplex virus type 1 induces CD83 degradation in mature dendritic cells with immediate-early kinetics via the cellular proteasome. *J Virol*. 2007 Jun;81(12):6326-38.
- *Wang Y, Dennehy PH, Keyserling HL, Tang K, Gentsch JR, Glass RI, Jiang B: Rotavirus infection alters peripheral T-cell homeostasis in children with acute diarrhea. *J Virol*. 2007 Apr;81(8):3904-12.
- *Gerlini G, Mariotti G, Chiarugi A, Di Gennaro P, Caporale R, Parenti A, Cavone L, Tun-Kyi A, Prignano F, Saccardi R, Borgognoni L, Pimpinelli N: Induction of CD83+CD14+ nondendritic antigen-presenting cells by exposure of monocytes to IFN-alpha. *J Immunol*. 2008 Sep 1;181(5):2999-3008.
- *Holmström K, Pedersen AW, Claesson MH, Zocca MB, Jensen SS: Identification of a microRNA signature in dendritic cell vaccines for cancer immunotherapy. *Hum Immunol*. 2010 Jan;71(1):67-73.
- *And many other.

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