Technical Data Sheet

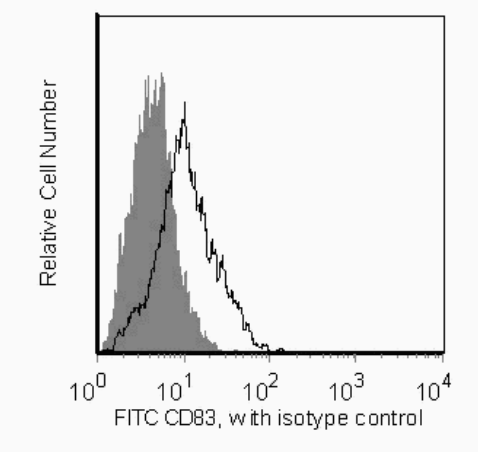
FITC Mouse Anti-Human CD83

Product Information

Material Number:	**560553**
Alternate Name:	BL11; HB15; B-cell activation protein
Size:	50 tests
Vol. per Test:	20 µl
Clone:	HB15e
Isotype:	Mouse IgG1, κ
Reactivity:	Human QC Testing: Rhesus or Cynomolgus
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The HB15e monoclonal antibody specifically binds to a 45 kDa type 1 transmembrane glycoprotein member of the Ig superfamily. CD83 is composed of a single V-type Ig extracellular domain with a C-terminal cytoplasmic tail. Cell surface CD83 is expressed mainly by follicular dendritic cells, circulating dendritic cells, interdigitating dendritic cells in lymphoid tissues, in vitro-generated dendritic cells and thymic dendritic cells. However, its expression is not restricted to dendritic cells. CD83 is also expressed on some germinal center B cells and some lymphoblastoid cell lines. Although its function is not known, it may play a role in cell-cell interaction during antigen presentation.



Flow cytometric analysis for CD83 in Rhesus macaque cultured dendritic cells. *Peripheral blood mononuclear cells (PBMC) from Rhesus macaque were treated with 20 ng/mL recombinant human IL-4 (Cat. No. 554605), 20 ng/mL recombinant human TNF (Cat. No. 554618) and 20 ng/mL recombinant human GM-CSF (Cat. No. 550068) for 7 days at 37°C. Cells were then stained with either a FITC Mouse IgG1, κ isotype control (shaded) or with the FITC Mouse Anti-Human CD83 antibody (unshaded). Histograms were derived from gated events based on light scattering characteristics for dendritic cells. Flow cytometry was performed on a BD™ LSR II flow cytometry system.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
556649	FITC Mouse IgG1, κ Isotype Control	50 tests	MOPC-21
555899	Lysing Buffer	100 ml	(none)
554605	Recombinant Human IL-4	5 µg	(none)
554618	Recombinant Human TNF	10 µg	(none)
550068	Recombinant Human GM-CSF	10 µg	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.

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3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Hart DN. Dendritic cells: unique leukocyte populations which control the primary immune response. *Blood.* 1997; 90(9):3245-3287. (Biology)

Kishimoto T, von dem Borne AEG, Goyert SM,et al., ed. *Leucocyte Typing VI: White Cell Differentiation Antigens.* London: Garland Publishing; 1997. (Biology)

Knapp W, Dorken B, Rieber EP, et al, ed. *Leucocyte Typing IV.* New York: Oxford University Press; 1989:1-1208. (Biology)

Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leukocyte Typing V: White Cell Differentiation Antigens.* New York: Oxford University Press; 1995. (Biology)

Summers KL, Daniel PB, O'Donnell JL, Hart DN. Dendritic cells in synovial fluid of chronic inflammatory arthritis lack CD80 surface expression. *Clin Exp Immunol.* 1995; 100(1):81-89. (Biology)

Weissman D, Li Y, Ananworanich J, et al. Three populations of cells with dendritic morphology exist in peripheral blood, only one of which is infectable with human immunodeficiency virus type 1. *Proc Natl Acad Sci U S A.* 1995; 92(3):826-830. (Biology)

Zhou LJ, Schwarting R, Smith HM, Tedder TF. 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.* 1992; 149(2):735-742. (Biology)

Zhou LJ, Tedder TF. Human blood dendritic cells selectively express CD83, a member of the immunoglobulin superfamily. *J Immunol.* 1995; 154(8):3821-3835. (Biology)

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