

## Technical Data Sheet

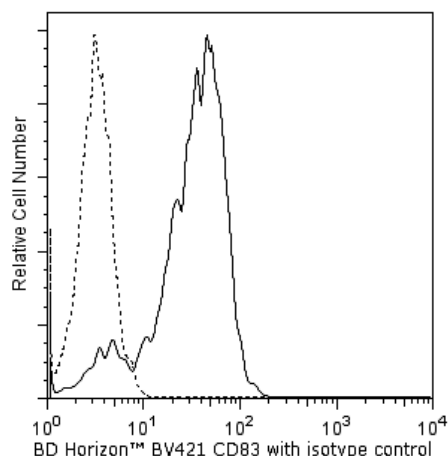
**BV421 Mouse Anti-Human CD83****Product Information**

<b>Material Number:</b>	<b>562630</b>
<b>Alternate Name:</b>	BL11; HB15; B-cell activation protein
<b>Size:</b>	50 tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	HB15e
<b>Immunogen:</b>	Human CD83 transfected COS cells
<b>Isotype:</b>	Mouse IgG1, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Storage Buffer:</b>	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.

The antibody was conjugated to BD Horizon™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



**Flow cytometric analysis of CD83 expression on cultured human dendritic cells.** Human peripheral blood monocytes were treated with 20 ng/mL of 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. The cells were then stained with either a BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; dashed line histogram) or with the BD Horizon™ BV421 Mouse Anti-Human CD83 antibody (Cat. No. 562630; solid line histogram). Flow cytometric histograms were derived from gated events based on the forward and side light-scatter characteristics of viable dendritic cells. Flow cytometry was performed using 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 BD Horizon™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 were removed.

**Application Notes****Application**

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
562438	BV421 Mouse IgG1, k Isotype Control	50 µg	X40
554656	Stain Buffer (FBS)	500 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  $1 \times 10^6$  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.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Please refer to [www.bdbiosciences.com/pharming/protocols](http://www.bdbiosciences.com/pharming/protocols) for technical protocols.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.

## References

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