

## Technical Data Sheet

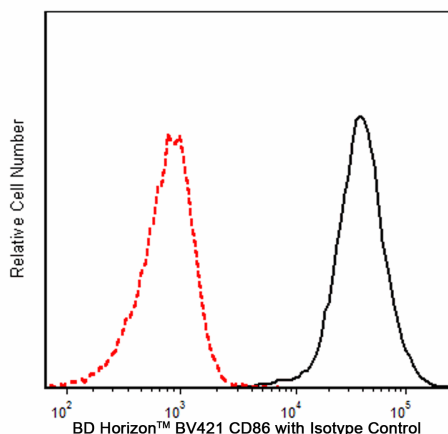
**BV421 Mouse Anti-Human CD86****Product Information**

<b>Material Number:</b>	<b>562433</b>
<b>Alternate Name:</b>	B7.2; B7-2; B-lymphocyte activation antigen B7-2; B70; BU63; CD28LG2; LAB72
<b>Size:</b>	25 tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	2331 (FUN-1)
<b>Immunogen:</b>	Human HBL-1 Cell Line
<b>Isotype:</b>	Mouse (BALB/c) IgG1, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Workshop:</b>	V B046, BP126
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

The 2331 (FUN-1) monoclonal antibody specifically recognizes a 75 kDa transmembrane cell surface protein, CD86 (B70/B7-2), expressed primarily on monocytes, dendritic cells and activated B cells. Competitive binding assays demonstrate that, while both 2331 (FUN-1) and IT2.2 (anti-CD86, Cat. No. 555663) antibodies specifically recognize the same molecule, they react with different epitopes. CD86 is the second ligand for CD28 and CTLA-4 and may play an important role in co-stimulation of T cells in primary immune response. The 2331 (FUN-1) antibody blocks the costimulatory activity of CD86 when tested in functional studies.

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 CD86 expression on Daudi cells.** Human Daudi cells (ATCC CCL-213) were stained with either BD Horizon™ BV421 Mouse anti-Human CD86 antibody (Cat. No. 562432/562433; solid line histogram) or with BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; dashed line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable cells. Flow cytometry was performed using a BD FACSCanto™ II Flow Cytometer 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

**Suggested Companion Products**

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
562438	BV421 Mouse IgG1, κ Isotype Control	50 µg	X40
562432	BV421 Mouse Anti-Human CD86	100 tests	2331 (FUN-1)

**BD Biosciences**

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit [bdbiosciences.com/contact](http://bdbiosciences.com/contact)

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD



## 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- $\mu$ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Brilliant Violet™ 421 is a trademark of Sirigen.
4. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. 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.
7. 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).
8. Please refer to [www.bdbiosciences.com/pharming/protocols](http://www.bdbiosciences.com/pharming/protocols) for technical protocols.

## References

Azuma H, Uno Y, Shigekiyo T, Saito S. Congenital plasminogen deficiency caused by a Ser572 to Pro mutation. *Blood*. 1993; 82(2):475-480. (Biology)  
Azuma M, Ito D, Yagita H, et al. B70 antigen is a second ligand for CTLA-4 and CD28. *Nature*. 1993; 366(6450):76-79. (Biology)  
Engel P, Gribben JG, Freeman GJ, et al. The B7-2 (B70) costimulatory molecule expressed by monocytes and activated B lymphocytes is the CD86 differentiation antigen. *Blood*. 1994; 84(5):1402-1407. (Biology)  
Engel P, Wagner N, Tedder TF. CD86 Workshop Report. In: Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leukocyte Typing V: White Cell Differentiation Antigens*. New York: Oxford University Press; 1995:703-705. (Biology)  
Nozawa Y, Wachi E, Tominaga K, Abe M, Wakasa H. A novel monoclonal antibody (FUN-1) identifies an activation antigen in cells of the B-cell lineage and Reed-Sternberg cells. *J Pathol*. 1993; 169(3):309-315. (Immunogen)  
Nozawa Y, Wakasa H, Abe M. Production and usefulness of monoclonal antibodies against B cells. *Fukushima J Med Sci*. 1999; 45(1):1-11. (Biology)  
Yang XF, Chen Z, Wormsley SB. Nashville: American Society of Hematology; 1994. (Biology)

## BD Biosciences

[bdbiosciences.com](http://bdbiosciences.com)

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit [bdbiosciences.com/contact](http://bdbiosciences.com/contact)

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD

