Technical Data Sheet

BV711 Mouse Anti-Human CD86

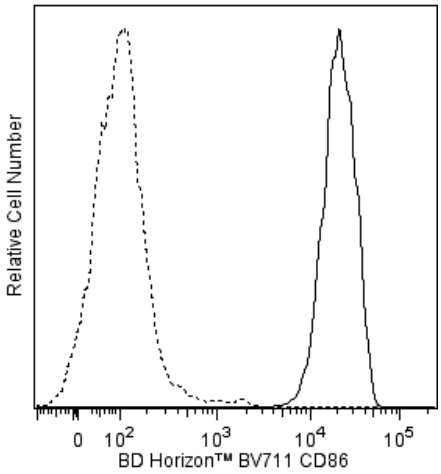
Product Information

Material Number:	**563158**
Alternate Name:	B7.2; B7-2; B-lymphocyte activation antigen B7-2; B70; BU63; CD28LG2; LAB72
Size:	50 tests
Vol. per Test:	5 µl
Clone:	2331 (FUN-1)
Immunogen:	Human HBL-1 Cell Line
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon
Workshop:	V B046, BP126
Storage Buffer:	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™ BV711 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. This dye is a tandem fluorochrome of BD Horizon™ BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 711-nm. BD Horizon™ BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy™5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.



Flow cytometric analysis of CD86 expression on Daudi cells. *Human Daudi B lymphoma cells (ATCC CRL-213) were stained with the BD Horizon™ BV711 Mouse Anti-Human CD86 antibody (Cat. No. 563158; solid line histogram) or with BD Horizon™ BV711 Mouse IgG1, κ Isotype Control (Cat. No. 563044; dashed line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable cells. Flow cytometric analysis was performed using a BD LSRFortessa™ Cell Analyzer 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™ BV711 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV711 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
563044	BV711 Mouse IgG1, k Isotype Control	50 µg	X40
555899	Lysing Buffer	100 ml	(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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/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.
7. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
8. Cy is a trademark of Amersham Biosciences Limited.
9. Brilliant Violet™ 711 is a trademark of Sirigen.
10. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.

References

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: Blocking, Flow cytometry, Functional assay, Inhibition)

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. (Clone-specific)

Nozawa Y, Abe M, Wakasa H. Three mAb, FUN-1, FB1, and FB21, that recognize B-cell antigens in frozen or paraffin-embedded tissue sections. In: Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leukocyte Typing V: White Cell Differentiation Antigens.* New York: Oxford University Press; 1995:705-706. (Clone-specific: Immunohistochemistry)

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: Immunofluorescence, Immunoprecipitation)

Nozawa Y, Wakasa H, Abe M. Production and usefulness of monoclonal antibodies against B cells. *Fukushima J Med Sci.* 1999; 45(1):1-11. (Clone-specific)

Yang XF, Chen Z, Wormsley SB. Nashville: American Society of Hematology; 1994. (Clone-specific)

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