Technical Data Sheet

APC-R700 Mouse Anti-Human CD86

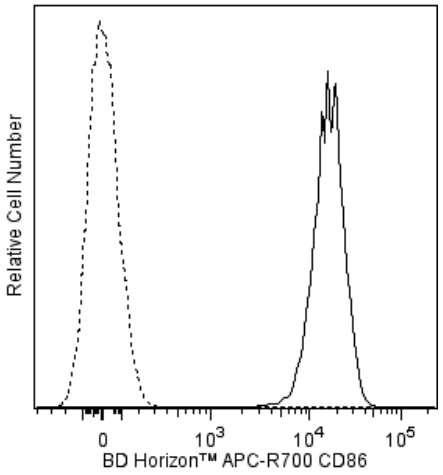
Product Information

Material Number:	**565149**
Alternate Name:	B7.2; B7-2; B-lymphocyte activation antigen B7-2; B70; BU63; CD28LG2; LAB72
Size:	100 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, protein stabilizer, glycerol 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) antibodies specifically recognize the same molecule, they react with different epitopes. CD86 is a ligand for CD28 and CTLA-4 and plays an important role in costimulation of T cells in primary immune response. The 2331 (FUN-1) antibody blocks the costimulatory activity of CD86 when tested in functional studies.

This antibody was conjugated to BD Horizon APC-R700, which has been developed exclusively by BD Biosciences as a better alternative to Alexa Fluor® 700. APC-R700 excites and emits at similar wavelengths to Alexa Fluor® 700 yet exhibits significantly improved brightness. This dye can be excited by the red laser and detected with the same filter set as Alexa Fluor® (eg, 730/45-nm filter).



Flow cytometric analysis of CD86 expression on Daudi cells. *Human Daudi B lymphoma cells (ATCC CCL-213) were stained with either BD Horizon™ APC-R700 Mouse IgG1, κ Isotype Control (Cat. No. 564974; dashed line histogram) or BD Horizon APC-R700 Mouse Anti-Human CD86 antibody (Cat. No. 565149; solid line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometric analysis was performed using a BD™ LSR 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 APC-R700 under optimum conditions, and unconjugated antibody and free BD Horizon APC-R700 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)
554657	Stain Buffer (BSA)	500 mL	(none)
564974	APC-R700 Mouse IgG1, κ Isotype Control	0.1 mg	X40

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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
7. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
8. An isotype control should be used at the same concentration as the antibody of interest.

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. (Clone-specific: Blocking, Enhancement, 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.* Oxford: Oxford University Press; 1995:703-705. (Clone-specific: Blocking, Flow cytometry, Immunoprecipitation)

Lin G-X, Yang X, Hollemweguer E, et al. Cross-reactivity of CD antibodies in eight animal species. In: Mason D, Andre P, Benussan A, et al, ed. *Leucocyte Typing VII: White Cell Differentiation Antigens.* New York: Oxford University Press; 2002:519-523. (Clone-specific: Flow cytometry)

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.* Oxford: 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: Flow cytometry, Fluorescence microscopy, Immunofluorescence, Immunohistochemistry, 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)

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