Technical Data Sheet

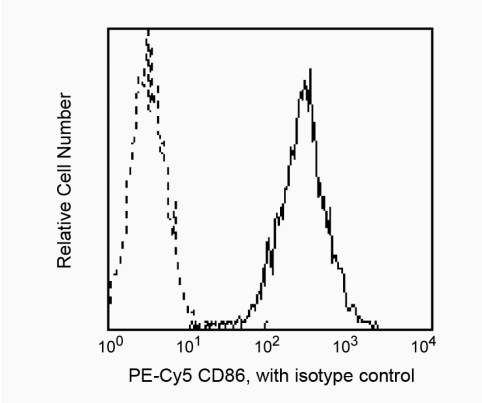
PE-Cy™5 Mouse Anti-Human CD86

Product Information

Material Number:	**555666**
Alternate Name:	B70/B7-2
Size:	100 tests
Vol. per Test:	20 µl
Clone:	IT2.2
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human
Workshop:	VI CD86.8
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

IT2.2 recognizes a 75 kDa cell surface protein, CD86 (B70/B7-2), expressed primarily on monocytes and activated B cells including lymphoid cells in germinal centers and Epstein-Barr virus transformed B-cell lines. CD86 is the second ligand for CD28 and CTLA-4 and may play an important role in costimulation of T cells in primary immune response. Competitive binding assays demonstrate that, while both IT2.2 and FUN-1 (anti-CD86, Cat. No. 555665) recognize the same molecule, they react with different epitopes. IT2.2 blocks costimulation activity of CD86 in functional studies and blocks binding of human CTLA-4-Ig fusion protein to B70 gene-transfected cells.



Profile of peripheral Daudi cells analyzed on a FACScan (BDIS, San Jose, CA).

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 PE-Cy5 (formerly known as BD Cy-Chrome™) under optimum conditions, and unconjugated antibody and free PE-Cy5 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
555744	PE-Cy™5 Mouse IgG2b κ Isotype Control	100 tests	27-35

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. PE-Cy5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the PE-Cy5 tandem fluorochrome, extra care must be taken when using dual-laser cytometers which may directly excite both PE and Cy5™.
3. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.268.5430	32.53.720.550	0120.8555.90	65.6861.0633	0800.771.7157

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

4. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
5. PE-Cy5 tandem fluorochromes have been reported to bind some classes of human macrophages and granulocytes via Fc receptors, and PE has been reported to bind to mouse B lymphocytes via Fc receptors. Preincubation of mouse leukocytes with Mouse BD Fc Block™ purified anti-mouse CD16/CD32 mAb 2.4G2 can reduce the non-specific binding of PE-Cy5-conjugated reagents to mouse B cells. However, PE-Cy5 conjugated reagents should not be used to stain splenocytes of SJL, NOD, and MRL mice as B lymphocytes and/or other leukocytes have been reported to non-specifically stain regardless of the use of Mouse BD Fc Block™ (the CD72c complex has been implicated for PE-Cy5 binding in these strains). Reagents conjugated to PE, PerCP, PerCP-Cy5.5, APC, and APC-Cy7 tandem fluorochrome can be used on leukocytes from these mouse strains.
6. PE-Cy5 is a tandem fluorochrome composed of R-phycoerythrin (PE), which is excited by the 488 nm light of an Argon ion laser and serves as an energy donor, coupled to the cyanine dye Cy5, which acts as an energy acceptor and fluoresces at 670 nm. BD Biosciences Pharmingen has maximized the fluorochrome energy transfer in PE-Cy5, thus maximizing its fluorescence emission intensity, minimizing residual emission from PE, and minimizing lot-to-lot variation.
7. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
8. 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.
9. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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, Zhou L, et al. 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. (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. (Biology)