

## Technical Data Sheet

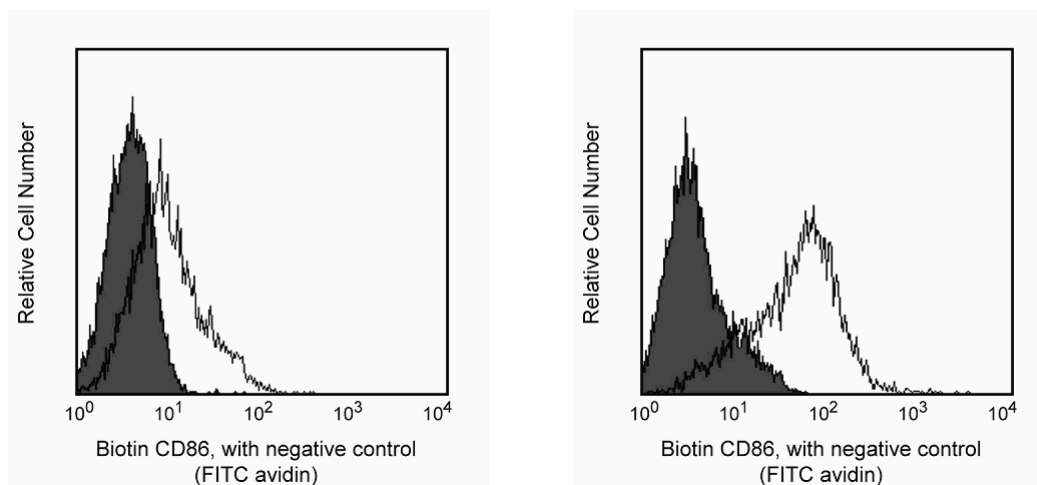
## Biotin Rat Anti-Mouse CD86

## Product Information

Material Number:	557426
Alternate Name:	B7-2
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	PO3
Immunogen:	BALB/c Mouse B Leukemia Cell Line BCL1
Isotype:	Rat (SD) IgG2b, $\kappa$
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The PO3 antibody reacts with the B7-2 (CD86) costimulatory molecule, which is expressed on a broad spectrum of leukocytes, including B lymphocytes, T lymphocytes, macrophages, dendritic cells, and Langerhans cells, plus astrocytes. CD86 is expressed at low levels by freshly explanted peripheral B and T cells, and its expression is substantially increased by a variety of T and B cell-specific stimuli with a peak expression after 18-42 hours of culture. In contrast to most naive CD4<sup>+</sup> T cells, memory CD4<sup>+</sup> T cells express B7-2, both at the mRNA and protein levels. CD86, a ligand for CD28 and CTLA-4, is one of the accessory molecules that plays an important role in T cell-B cell costimulatory interactions. It has been shown to be involved in immunoglobulin class switching and triggering of mouse NK cell-mediated cytotoxicity. CD80 (B7-1) is an alternate ligand for CD28 and CTLA-4. PO3 antibody blocks the in vitro stimulation of T-cell proliferation of T-cell proliferation by soluble anti-CD3e antibody (mAb 145-2C11, Cat. No. 553057) in the presence of CD86-expressing accessory cells. In vivo administration of PO3 mAb can inhibit much of the autoantibody production in (NZB x NZW) F1 mice; and in combination with an anti-CD80 mAb, it can prevent the development and progression of mouse systemic lupus erythematosus-like autoimmune disease.



**Upregulation of membrane CD86 (B7-2) on activated B lymphocytes.** Freshly isolated (left panel) or 72-hour LPS-stimulated (right panel) BALB/c splenocytes were pretreated with Mouse Fc Block™ (purified anti-mouse CD16/CD32 mAb 2.4G2, Cat. No. 553141/553142, both panels) and either unstained (shaded histograms) or stained with biotin-conjugated PO3 mAb (open histograms) followed by Avidin-FITC (Cat. No. 554057, shaded and open histograms). Flow cytometry was performed on a FACScan™ (BDIS, San Jose, CA). Resting lymphocytes (left panel) or activated blasts (right panel) were selected according to light-scatter profiles.

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

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## Application Notes

### Application

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
554057	Avidin FITC	0.5 mg	(none)
553987	Biotin Rat IgG2b, κ Isotype Control	0.25 mg	A95-1

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
3. 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.

## References

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