Technical Data Sheet

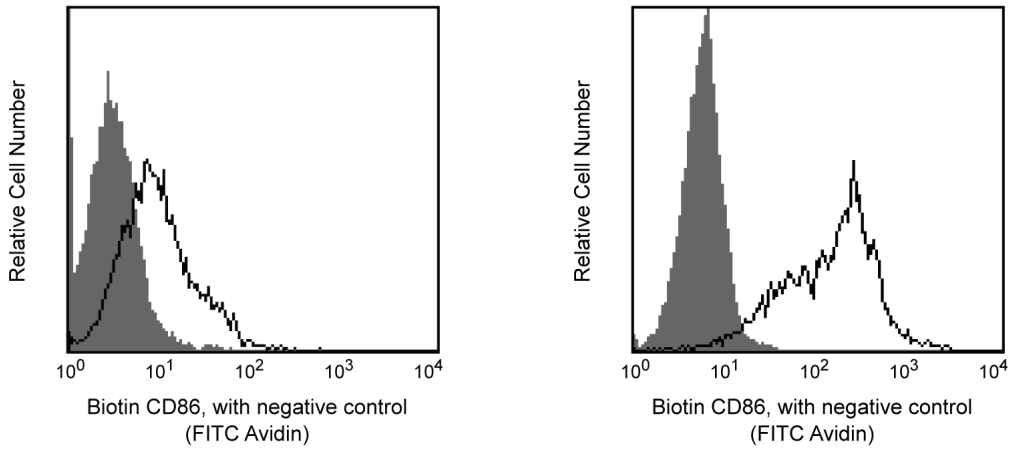
Biotin Rat Anti-Mouse CD86

Product Information

Material Number:	**553690**
Alternate Name:	B7-2
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	GL1
Immunogen:	Mouse (CBA/Ca) LPS-activated splenic B Cells
Isotype:	Rat (LOU) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

The GL1 antibody has been reported to react with the B7-2 (CD86) costimulatory molecule expressed on a broad spectrum of leukocytes, including B lymphocytes, T lymphocytes, thioglycollate-induced peritoneal macrophages, dendritic cells and 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 cell- and B cell-specific stimuli with a peak expression after 18-42 hours of culture. In contrast to most naive CD4+ T cells, memory CD4+ T cells express B7-2, both at the mRNA and protein level. CD86, a ligand for CD28 and CD152 (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 CD152 (CTLA-4). GL1 antibody reportedly blocks MLR and stimulation of T cells by natural antigen-presenting cells. In addition, a mixture of anti-B7-1 and anti B7-2 (GL1) mAbs reportedly inhibits the in vitro interaction of CTLA-4 with its ligand and the in vivo priming of cytotoxic T lymphocytes.



Fow cytometric analysis of CD86 expression of activated and resting mouse splenocytes. *Freshly isolated (Left Panel) or 72-hour LPS-stimulated BALB/c splenic luecocytes (Right Panel) were pretreated with Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) (Cat. No. 553141/553142). The cells were then either unstained (shaded histograms) or stained with Biotin Rat Anti-Mouse CD86 (Cat. No 553690); open histograms) followed by Avidin-FITC (Cat. No. 554057; shaded and open histograms). Flow cytometry was performed on a BD FACScan™ Flow Cytometry System. The fluorescence histograms were derived from gated events with the forward and side light-catter characteristics of viable resting (Left Panel) or activated (Right Panel) lymphocytes.*

Preparation and Storage

Store undiluted at 4°C.

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.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Reported

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Recommended Assay Procedure:

Immunofluorescent staining*:* The use of Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) (Cat. No. 553141/553142) may help to reduce non-specific binding of GL1 antibody to cells bearing Fcγ-receptors.

Immunohistochemistry: For IHC, we recommend the use of Purified Rat Anti-Mouse CD86 (Clone GL1, Cat. No. 550542) which has been formulated specifically for immunohistochemistry.

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)
553928	Biotin Rat IgG2a κ Isotype Control	0.25 mg	R35-95
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

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