Technical Data Sheet

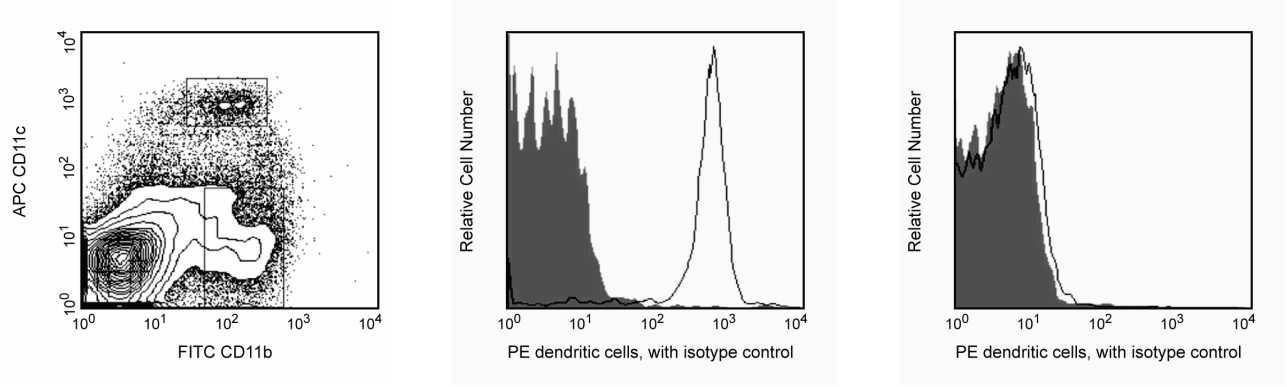
PE Rat Anti-Mouse Dendritic Cells

Product Information

Material Number:	**557578**
Alternate Name:	Dendritic Cell inhibitory Receptor-2 (DCIR2)
Size:	0.2 mg
Concentration:	0.2 mg/ml
Clone:	33D1
Immunogen:	Dendritic cells purified from mouse spleen and lymph node
Isotype:	Rat (SD) IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 33D1 antibody reacts with an antigen on most dendritic cells (DC) of spleen, lymph node, and Peyer's patch, but not liver, bone marrow, or epidermal dendritic cells; macrophages; other leukocytes; or erythroid cells. Within the spleen, the majority of 33D1+ DC are localized in the marginal zones. Thymic dendritic cells may express a low level of the 33D1 antigen. It has been reported that bone-marrow DC can be induced to express the 33D1 antigen by culture in the presence of GM-CSF, and the resulting 33D1+ DC are effective in in vitro (induction of MLR) and in vivo (anti-tumoral vaccination) assays for antigen presentation. However, the addition of IL-4 to GM-CSF in bone-marrow cultures resulted in loss of 33D1 expression and enhanced the MLR-stimulatory activity of the DC. It has also been reported that 33D1 expression is upregulated when liver-derived DC are cultured on collagen-coated plates in the presence of GM-CSF. In vivo functional 33D1+ DC are induced in the brains of mice chronically infected with Toxoplasma gondii, probably via the parasite's induction of GM-CSF.



Multicolor analysis of splenic dendritic cells. *C57BL/6 splenocytes were stained with either PE-conjugated mAb 33D1 (open histograms) or PE-conjugated rat IgG2b, κ isotype control mAb A95-1 (Cat. No. 553989, filled histograms) in the presence of Mouse BD Fc Block™ purified anti-mouse CD16/CD32 mAb 2.4G2 (Cat. No. 553141/553142). Dendritic cells were identified by staining with APC-conjugated anti-mouse CD11c mAb HL3 (Cat. No. 550261) and FITC-conjugated anti-mouse CD11b mAb M1/70 (Cat. No. 557396/553310). Non-viable leukocytes were excluded by staining with propidium iodide. Left panel displays the expression of CD11c and CD11b among the viable splenocytes, and the gates used for further analysis are shown. The CD11c+CD11b[intermediate] dendritic cell population expresses the 33D1 Dendritic Cell antigen (middle panel), whereas the CD11c-CD11b+ non-dendritic population is 33D1-negative (right panel). Flow cytometry was performed on a BD FACSCalibur™ flow cytometry 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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

For optimal staining of peripheral leukocytes, we recommend the use of Mouse BD Fc Block™ purified anti-mouse CD16/CD32 mAb 2.4G2 (Cat. No. 553141/553142).

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Suggested Companion Products

Catalog Number	Name	Size	Clone
553989	PE Rat IgG2b, κ Isotype Control	0.1 mg	A95-1
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
554656	Stain Buffer (FBS)	500 ml	(none)
557396	FITC Rat Anti-Mouse CD11b	0.1 mg	M1/70
550261	APC Hamster Anti-Mouse CD11c	0.1 mg	HL3

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. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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. An isotype control should be used at the same concentration as the antibody of interest.

References

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Dudziak D, Kamphorst AO, Nussenzweig MC, et al. Differential antigen processing by dendritic cell subsets in vivo. *Science.* 2007; 315(5808):107-111. (Clone-specific: Flow cytometry)

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