

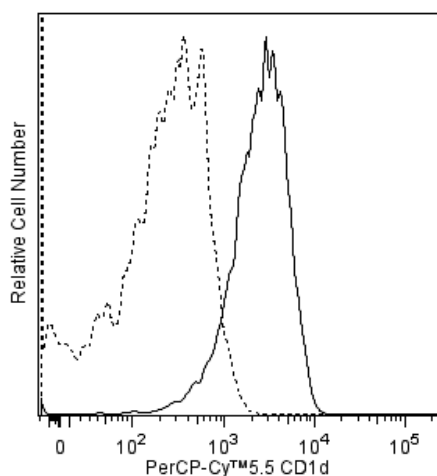
Technical Data Sheet

PerCP-Cy™5.5 Rat Anti-Mouse CD1d**Product Information**

Material Number:	562713
Alternate Name:	Cd1d1; Cd1.1; Cd1a; Cd1d; Ly-38
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	1B1
Immunogen:	Mouse Cd1.1 cDNA-transfected RMA-S mouse T lymphoma and mouse L929 cells
Isotype:	Rat (LEW) IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 1B1 monoclonal antibody specifically binds to mouse CD1d, a 48-kDa glycoprotein with structural homology to the major histocompatibility complex (MHC) class I molecules. The structure, expression, and functions of CD1 antigens are complex and have been reviewed. mAb 1B1 detects CD1d at varying levels on most types of bone marrow and peripheral leukocytes and on epithelial, dendritic, and lymphoid cells in the thymus. It appears to recognize CD1d only in association with β2m. CD1d has been reported to be expressed by gastrointestinal tract epithelium and in the cytoplasm of hepatocytes as detected via immunohistochemical staining of frozen sections with mAb 3C11 (Cat. No. 559871, for the purified antibody), suggesting a possible role for CD1d in mucosal immunity. However, CD1d expression was not detectable, via flow cytometry, on intestinal epithelial cells in studies using the anti-CD1d mAbs 3C11, 1B1, and 9C7. The 1B1 antibody competes with mAb 3C11 in binding to mouse splenocytes.



Flow cytometric analysis of CD1d expression on mouse thymocytes. Thymocytes from BALB/c mice were stained with either PerCP-Cy™5.5 Rat IgG2b, κ Isotype Control (Cat. No. 550764, dashed line histogram) or with the PerCP-Cy™5.5 Rat Anti-Mouse CD1d antibody (Cat. No. 562713, solid line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable thymocytes. Flow cytometry 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 PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

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)
550764	PerCP-Cy™5.5 Rat IgG2b, κ Isotype Control	0.1 mg	A95-1

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.

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2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
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. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
6. 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.
7. PerCP-Cy5.5-labelled antibodies can be used with FITC- and R-PE-labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
8. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
9. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
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