

## Technical Data Sheet

## Biotin Rat Anti-Mouse CD1d

## Product Information

<b>Material Number:</b>	553844
<b>Alternate Name:</b>	CD1.1, Ly-38
<b>Size:</b>	0.5 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	1B1
<b>Immunogen:</b>	Mouse Cd1.1 cDNA-transfected RMA-S mouse T lymphoma and mouse L929 cells
<b>Isotype:</b>	Rat (LEW) IgG2b, $\kappa$
<b>Reactivity:</b>	QC Testing: Mouse
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

## Description

The 1B1 antibody reacts with 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  $\beta 2m$ . 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.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

## 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.

## Application Notes

## Application

Flow cytometry	Routinely Tested
Immunofluorescence	Reported
Immunohistochemistry-frozen	Reported

## Recommended Assay Procedure:

Other reported applications include immunofluorescent staining of fixed and permeabilized adherent cell cultures. Use of biotinylated 1B1 antibody for immunohistochemical staining of acetone-fixed frozen sections has also been reported; however we have been unable to reproduce those results at BD Biosciences Pharmingen.

## Suggested Companion Products

Catalog Number	Name	Size	Clone
553987	Biotin Rat IgG2b, $\kappa$ Isotype Control	0.25 mg	A95-1
554061	PE Streptavidin	0.5 mg	(none)

## Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
- 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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Brossay L, Jullien D, Cardell S, et al. Mouse CD1 is mainly expressed on hemopoietic-derived cells. *J Immunol.* 1997; 159(3):1216-1224. (Immunogen: Immunohistochemistry)

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