

## Product Information

Contents: Phycoerythrin (PE) anti-mouse CD1d (CD1.1, Ly-38)

Catalog Number: 12-0011

Sizes: 50 ug, 100 ug, 200 ug

Formulation: Phosphate buffer pH 7.2,  
150 mM NaCl, 0.09% NaN<sub>3</sub>

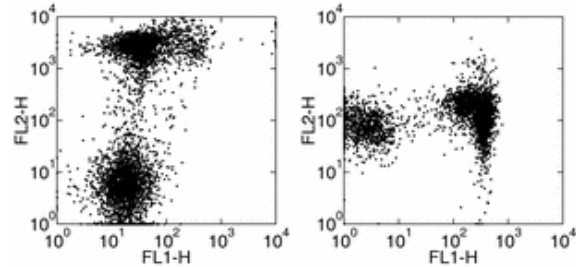
Storage Conditions: Store at 4°C.

DO NOT FREEZE.

LIGHT-SENSITIVE MATERIAL.

Clone: 1B1

Isotype: Rat IgG2b, κ



Two-color surface staining of mouse splenocytes with FITC anti-mouse CD1d (1B1) (left) and Biotin anti-mouse CD1d (1B1) followed by SA-PE (right) and PE and FITC anti-mouse CD45R/B220 (RA3-6B2) respectively. Total viable cells were used for analysis.

## Available Formats of This Product

Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
11-0011	FITC anti-mouse CD1d (CD1.1, Ly-38)	488	518	FC
12-0011	PE anti-mouse CD1d (CD1.1, Ly-38)	488	575	FC
13-0011	Biotin anti-mouse CD1d (CD1.1, Ly-38)	N/A	N/A	FC
14-0011	Affinity Purified anti-mouse CD1d (CD1.1, Ly-38)	N/A	N/A	FA FC IHC IP
16-0011	Functional Grade* Purified anti-mouse CD1d (CD1.1, Ly-38)	N/A	N/A	FA FC

\*Functional Grade™ (FG™): Azide-free, sterile-filtered, and endotoxin < 0.001 ng/μg.  
Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

## Description

The 1B1 monoclonal antibody reacts with mouse CD1d, a 48 kDa glycoprotein with structural homology to MHC class I molecules. While similar to MHC Class I, CD1d associates with β2-m, functionally CD1d is similar to MHC Class II. 1B1 detects CD1d at varying levels on mouse leukocytes. 1B1 detects β2-m associated CD1d.

## Usage

For research use only, not for diagnostic or therapeutic use. The 1B1 antibody has been reported for use in flow cytometric analysis.

## Applications Tested

The 1B1 antibody has been tested by flow cytometric analysis of mouse splenocyte suspensions. This can be used at less than or equal to 0.125 μg per million cells in a 100 μl total staining volume. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

## Related Products

- Cat. 11-0011 FITC anti-mouse CD1d (CD1.1, Ly-38) (clone 1B1)
- Cat. 13-0011 Biotin anti-mouse CD1d (CD1.1, Ly-38) (clone 1B1)
- Cat. 14-0011 Affinity Purified anti-mouse CD1d (CD1.1, Ly-38) (clone 1B1)
- Cat. 16-0011 Functional Grade Purified anti-mouse CD1d (CD1.1, Ly-38) (clone 1B1)
- Cat. 12-4031 Phycoerythrin (PE) Rat IgG2b Isotype Control (clone eB149/10H5)

## References

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Brossay L, D.Jullien, S. Cardell, B.C. Sydora, N. Burdin, R.L. Modlin, and M. Kronenberg. 1997. Mouse CD1 is mainly expressed on hemopoietic derived cells. *J. Immunol.* 159: 1216-1224.

Amano M., N. Baumgarth, M.D. Dick, L. Brossay, M. Kronenberg, L.A. Herzenberg, and S Strober. 1998. CD1 expression defines subsets of follicular and marginal zone B cells in the spleen:  $\beta$ 2-microglobulin-dependent and independent forms. *J. Immunol.* 161:1710-1717.

Sydora B.C., L. Brossay, A. Hagenbaugh, M. Kronenberg, and H. Cheroutre. 1996. TAP-independent selection of CD8+ intestinal intraepithelial lymphocytes. *J. Immunol.* 156: 4209-4216.

Roark J.H., S.-H. Park, J. Jayawardena, U. Kavita, M. Shannon, and A. Bendelac. 1998. CD1.1 expression by mouse antigen-presenting cells and marginal zone B cells. *J. Immunol.* 160: 3121-3127.

Kawano, T. J. Cui, Y. Koezuka, I. Toura, Y. Kaneko, K. Motoki, H. Ueno, R. Nakagawa, H. Sato, E. Kondo, H. Koseki, and M. Taniguchi. 1997. CD1d-restricted and TCR-mediated activation of Valpha14 NKT cells by glycosylceramides. *Science* 278:1626-1629.

Burdin N., L. Brossay, Y. Koezuka, S. T. Smiley, M. J. Grusby, M. Gui, M. Taniguchi, K. Hayakawa, M. Kronenberg. 1998. Selective Ability of Mouse CD1 to Present Glycolipids:  $\alpha$ -Galactosylceramide Specifically Stimulates Va14+ NK T Lymphocytes. *J. Immunol* 161: 271-81.