Technical Data Sheet

PE Rat Anti-Mouse CD1d

Product Information

Material Number: 553846
Alternate Name: Cd1d1; Cd1.1; Cd1a; Cd1d; Ly-38
Size: 0.1 mg
Concentration: 0.2 mg/ml
Clone: 1B1
Immunogen: Mouse Cd1.1 cDNA-transfected RMA-S mouse T lymphoma and L929 cells
Isotype: Rat (LEW) IgG2b, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 1B1 monoclonal antibody specifically binds to mouse CD1d, a 48-kDa glycoprotein with structural homology to 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 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.

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 |

Flow cytometric analysis of CD1d expression on mouse thymocytes. Thymocytes from BALB/c mice were stained with either PE Rat IgG2b, κ Isotype Control (Cat. No. 553989, dashed line histogram) or with the PE Rat Anti-Mouse CD1d antibody (Cat. No. 553846, solid line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable thymocytes.
**Suggested Companion Products**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>553989</td>
<td>PE Rat IgG2b, κ Isotype Control</td>
<td>0.1 mg</td>
<td>A95-1</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
<td>500 mL</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
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**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

**References**


