Technical Data Sheet

Purified Rat Anti-Mouse CD1d

Product Information

Material Number: 553843
Alternate Name: CD1.1, Ly-38
Size: 0.5 mg
Concentration: 0.5 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 Tested: Mouse
Storage Buffer: Aqueous buffered solution containing ≤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 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.

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. Store undiluted at 4°C.

Application Notes

Application

| Flow cytometry | Routinely Tested |
| Immunoprecipitation | Reported |
| Blocking | Reported |

Recommended Assay Procedure:

Reported applications include immunoprecipitation, blocking of in vitro antigen-mediated stimulation of NK1+T cells, blocking of in vitro responses of some T cells to CD1d1, (possibly to β2m-associated form of CD1d, but not to β2m-independent CD1d4), and in vivo inhibition of TGF-β2 production. mAb 3C11 (Cat. No. 559871) has been reported to inhibit responses of some T cells to both β2m-associated and β2m-independent forms of CD1d.

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>553986</td>
<td>Purified Rat IgG2b, κ Isotype Control</td>
<td>0.5 mg</td>
<td>A95-1</td>
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<tr>
<td>554016</td>
<td>FITC Goat Anti-Rat Ig</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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Product Notices

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

BD Biosciences

For country-specific contact information, visit bdbiosciences.com/how_to_order/
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

References