Technical Data Sheet

FITC Mouse Anti-Mouse Vβ 12 T-Cell Receptor

Product Information

Material Number: 553300
Size: 0.25 mg
Concentration: 0.5 mg/ml
Clone: MR11-1
Immunogen: Not Reported
Isotype: Mouse (SWR) IgG1, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MR11-1 monoclonal antibody specifically recognizes the Vβ 12 T-cell Receptor (TCR) of mice having the b haplotype (e.g., C57BL, C58, DBA/1) of the Tcrb gene complex. The Tcrb-V12 gene locus is deleted in mice having the a (e.g., C57BR, C57L, SJL, SWR) or c (e.g., RIJI) haplotype. Vβ 12 TCR-bearing T lymphocytes are clonally eliminated in mice expressing I-E and superantigens encoded by Mtv-8 (Mlsf, Dbv1l1.1), Mtv-9 (Eco-1, Mlsf, Dbv1l1.2) and/or Mtv-11 (Mlsf, Dbv1l1.3) proviruses (e.g., A, AKR, BALB/c, CBA/I, C3H, DBA/2). Activation of Vβ 12 TCR-expressing T cells by these determinants is dependent upon presentation by I-E. C57BL/6 spleen T cells expressing Vβ 12 TCR are among the predominant responders to MAIDS virus superantigen.

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 FITC under optimum conditions, and unreacted FITC was removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

| Flow cytometry | Routinely Tested |

Recommended Assay Procedure:

For flow cytometry of cell suspensions from peripheral lymphoid tissues, it is recommended that multicolor staining be performed to distinguish T lymphocytes from non-T cells.

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>550616</td>
<td>FITC Mouse IgG1, κ Isotype Control</td>
<td>0.25 mg</td>
<td>MOPC-31C</td>
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<tr>
<td>553048</td>
<td>PE Rat Anti-Mouse CD4</td>
<td>0.1 mg</td>
<td>RM4-5</td>
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Two color analysis of the expression of Vβ 12 TCR on peripheral lymphocytes. C57BL/6 lymph node cells were incubated simultaneously with FITC-conjugated MR11-1, PE-conjugated anti-mouse CD4 RM4-5 (Cat. No. 553046/553049), and PE-conjugated anti-mouse CD8a 53-6.7 (Cat. No. 553032/553033) monoclonal antibodies. Flow cytometry was performed on a BD FACScan™ flow cytometry system.
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.

References
Hodes RJ, Abe R. Mouse endogenous superantigens: Ms and Mls-like determinants encoded by mouse retroviruses. Curr Protoc Immunol. 2001; Appendix 1:Appendix 1F. (Biology)