Technical Data Sheet

PE Rat Anti-Mouse Vβ 7 T-Cell Receptor

Product Information

Material Number: 553216

Size: 0.1 mg

Concentration: 0.2 mg/ml

Clone: TR310

Immunogen: AKR/Cum Mouse spontaneous T Lymphoma Cell Line TK1

Isotype: Rat (F344) IgG2b, κ

Reactivity: QC Testing: Mouse

Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The TR310 monoclonal antibody specifically recognizes the Vβ 7 T-Cell Receptor (TCR) of strains having the a (e.g., C57BR, C57L, SJL), b (e.g., A, BALB/c, CBA/Ca, C3H/He, C57BL, DBA/1), and c (e.g., RIII) haplotypes of the Tcrb gene complex. Vβ 7 is among the predominant TCRs expressed by NK-T cells of C57BL/6 mice. Vβ 7 TCR-bearing T lymphocytes are clonally eliminated in mice expressing superantigens encoded by Mtv-7 (Mls-1[a], Mls[a]) endogenous proviruses (e.g., AKR, CBA/J, C58, DBA/2, NZB). Activation or elimination of Vβ 7 TCR-expressing T cells by these determinants is partially dependent upon presentation by I-E. Mtv-43 and/or exogenous MMTV-SW superantigens also cause incomplete elimination of Vβ 7 TCR-bearing T cells.

Preparation and Storage

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. 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>553046</td>
<td>FITC Rat Anti-Mouse CD4</td>
<td>0.1 mg</td>
<td>RM4-5</td>
</tr>
<tr>
<td>553030</td>
<td>FITC Rat Anti-Mouse CD8a</td>
<td>0.1 mg</td>
<td>53-6.7</td>
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Two-color analysis of the expression of Vβ 7 TCR on peripheral T lymphocytes. BALB/c lymph node cells were simultaneously stained with PE-conjugated TR310, FITC-conjugated RM4-5 (anti-CD4, Cat. No. 553046/553047), and FITC-conjugated 53-6.7 (anti-CD8a, Cat. No. 553030/553031) monoclonal antibodies. Flow cytometry was performed on a FACScan™ (BDIS, San Jose, CA).
Product Notices
1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
4. 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 Ms-like determinants encoded by mouse retroviruses. Curr Protoc Immunol. 2001; Appendix 1:Appendix 1F. (Biology)