Biotin Rat Anti-Mouse Vβ 6 T-Cell Receptor

Product Information

Material Number: 553192
Alternate Name: TCR V beta 6; TCR Vβ6
Size: 0.25 mg
Concentration: 0.5 mg/ml
Clone: RR4-7
Immunogen: C57BL/6 Mouse Helper T-Cell Clone OI11
Isotype: Rat (F344) IgG2b, λ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The RR4-7 antibody specifically reacts with the Vβ 6 T-Cell Receptor (TCR) of mice having the a (e.g., C57BR, C57L, SIL) and b (e.g., A, BALB/c, CBA/Ca, C3H/He, C57BL, DBA/1) haplotypes of the Tcrb gene complex. The Tcrb-V6 gene locus is deleted in mice having the c (e.g., RI) haplotype. Vβ 6 TCR-bearing T lymphocytes are clonally eliminated in mice expressing superantigen encoded by Mtv-7 (Mls-I[a], Mls[a]) endogenous provirus (e.g., AKR, CBA/1, C58, DBA/2, NZB), or Mtv-43 endogenous provirus (e.g., MA/Myl). Exogenous MMTV-SW, as well as endogenous Mtv-44-encoded superantigen (e.g., NZW), also causes incomplete elimination of Vβ 6 TCR-expressing T cells. Plate-bound RR4-7 antibody activates Vβ 6 TCR-bearing T cells, soluble RR4-7 mAb blocks in vitro proliferation and cytolytic activities of Vβ 6 TCR-bearing T-cell clones, and injection of the antibody results in in vivo depletion of Vβ 6 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 biotin under optimum conditions, and unreacted biotin was removed. Store undiluted at 4°C.

Application Notes

Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Routinely Tested</th>
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<tbody>
<tr>
<td>Flow cytometry</td>
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</table>

Two-color analysis of the expression of Vβ 6 TCR on peripheral T lymphocytes. C57BL/6 lymph nodes cells were incubated simultaneously with Biotin Rat Anti-Mouse Vβ 6 T-Cell Receptor (Cat. No. 553192; right panel), PE Rat Anti-Mouse CD4 (Cat. No. 553048/553049), and PE Rat Anti-Mouse CD8a (Cat. No. 553032/553033) monoclonal antibodies, followed by Avidin FITC (Cat. No. 554057). The fluorescence contour plots were derived from gated events based on the forward and side light-scattering of viable lymphocytes. Flow cytometry was performed on a FACScan™.
### Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
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<td>A95-1</td>
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<td>PE Rat Anti-Mouse CD4</td>
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<td>553032</td>
<td>PE Rat Anti-Mouse CD8a</td>
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<td>554057</td>
<td>Avidin FITC</td>
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<td>PE Rat Anti-Mouse CD8a</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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

### References


