FITC Mouse Anti-Mouse Vβ 8 T-Cell Receptor

**Product Information**

- **Material Number:** 553861
- **Alternate Name:** TCR V beta 8; TCR V beta 8.1/8.2/8.3
- **Size:** 0.25 mg
- **Concentration:** 0.5 mg/ml
- **Clone:** F23.1
- **Immunogen:** BALB.C Mouse Lymph-Node and Spleen T Cells
- **Isotype:** Mouse (C57L) IgG2a, κ
- **Reactivity:** Mouse
- **Storage Buffer:** Aqueous buffered solution containing ≤0.09% sodium azide.

**Description**

The F23.1 antibody specifically reacts with the Vβ 8.1, Vβ 8.2, and Vβ 8.3 T-cell receptors (TCR) of mice having the b haplotype (e.g., A, AKR, BALB/c, CBA/Ca, CBA/J, C3H/He, C57BL, C58, DBA/1, DBA/2) of the Tcrb gene complex. The Tcrb-V8 subfamily gene loci are deleted in mice having the a (e.g., C57BR, C57L, SIL, SWR) or c (e.g., RIJH) haplotype. Vβ 8.1 TCR-bearing T lymphocytes are clonally eliminated in mice expressing superantigen coded by Mtv-7 (Mls-1a, Mlsa) provirus (e.g., AKR, CBA/C, C58, DBA/2), and activation or elimination of Vβ 8.1 TCR-expressing T cells by this determinant is partially dependent upon presentation by I-E. Mtv-43 and/or exogenous MMTV-SW superantigens also cause incomplete elimination of Vβ 8.1 TCR-bearing T cells. In addition to expression on conventional T lymphocytes, Vβ 8.2 is the predominant β chain of the TCR on NK-T cells. Staphylococcal enterotoxin B, in association with antigen-presenting cells expressing I-A and/or I-E, stimulates lymphocytes bearing Vβ 8 TCR and selectively eliminates those T cells in vivo. Soluble and plate-bound F23.1 antibody activates Vβ 8 TCR-bearing T cells, soluble antibody blocks cytolysis mediated by Vβ 8 TCR-bearing cytotoxic T lymphocytes, and in vivo treatment of neonatal mice can arrest intrathymic maturation of Vβ 8 TCR-bearing T cells.

**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 FITC under optimum conditions, and unreacted FITC was removed.

**Application Notes**

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

**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>553048</td>
<td>PE Rat Anti-Mouse CD4</td>
<td>0.1 mg</td>
<td>RM4-5</td>
</tr>
<tr>
<td>553032</td>
<td>PE Rat Anti-Mouse CD8a</td>
<td>0.1 mg</td>
<td>53-6.7</td>
</tr>
<tr>
<td>553456</td>
<td>FITC Mouse IgG2a, κ Isotype Control</td>
<td>0.25 mg</td>
<td>G155-178</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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<tr>
<td>553049</td>
<td>PE Rat Anti-Mouse CD4</td>
<td>0.2 mg</td>
<td>RM4-5</td>
</tr>
<tr>
<td>553033</td>
<td>PE Rat Anti-Mouse CD8a</td>
<td>0.2 mg</td>
<td>53-6.7</td>
</tr>
</tbody>
</table>

## 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


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)

Hugo P, Kappler JW, Godfrey DI, Marrack PC. Thymic epithelial cell lines that mediate positive selection can also induce thymocyte clonal deletion. *J Immunol.* 1994; 52(3):1022-1031. (Biology)


