Technical Data Sheet

# FITC Mouse Anti-Mouse Vβ 8 T-Cell Receptor

## Product Information

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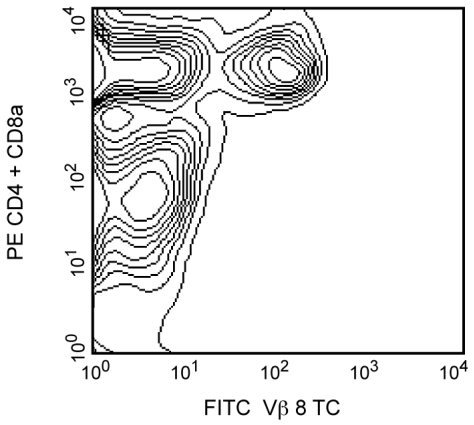
| **Material Number:** | **553861** |
| **Size:** | 0.25 mg |
| **Concentration:** | 0.5 mg/ml |
| **Clone:** | F23.1 |
| **Immunogen:** | BALB.B Mouse Lymph-Node and Spleen T Cells |
| **Isotype:** | Mouse (C57L) IgG2a, κ |
| **Reactivity:** | QC Testing: Mouse |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

The F23.1 antibody 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, SJL, SWR) or c (*e.g.,* RIII) 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/J, 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.

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.




***Two-color analysis of the expression of Vβ 8 TCR on peripheral lymphocytes.*** *C57BL/6 lymph node cells were incubated simultaneously with FITC-conjugated F23.1, PE-conjugated RM4-5 (anti-CD4, Cat. No. 553048/553049), and PE-conjugated 53-6.7 (anti-CD8a, Cat. No. 553032/553033) monoclonal antibodies. Flow cytometry was performed on a FACScan™ (BDIS, San Jose, CA).*

## Preparation and Storage

The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

## Application Notes

**Application**

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| Flow cytometry | Routinely Tested |

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**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

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 553048 | PE Rat Anti-Mouse CD4 | 0.1 mg | RM4-5 |
| 553032 | PE Rat Anti-Mouse CD8a | 0.1 mg | 53-6.7 |
| 553456 | FITC Mouse IgG2a, κ Isotype Control | 0.25 mg | G155-178 |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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


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