

Technical Data Sheet

PE Mouse Anti-Mouse V β 8 T-Cell Receptor

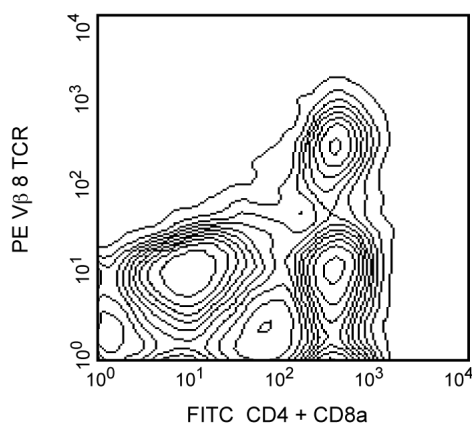
Product Information

Material Number:	553862
Size:	0.1 mg
Concentration:	0.2 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 $\leq 0.09\%$ sodium azide.

Description

The F23.1 antibody reacts with the V β 8.1, V β 8.2, and V β 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. V β 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 V β 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 V β 8.1 TCR-bearing T cells. In addition to expression on conventional T lymphocytes, V β 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 V β 8 TCR and selectively eliminates those T cells in vivo. Soluble and plate-bound F23.1 antibody activates V β 8 TCR-bearing T cells, soluble antibody blocks cytotoxicity mediated by V β 8 TCR-bearing cytotoxic T lymphocytes, and in vivo treatment of neonatal mice can arrest intrathymic maturation of V β 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 V β 8 TCR on peripheral lymphocytes. C57BL/6 lymph node cells were incubated simultaneously with PE-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).

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 by gel filtration chromatography.

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

Application Notes

Application

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
553046	FITC Rat Anti-Mouse CD4	0.1 mg	RM4-5
553030	FITC Rat Anti-Mouse CD8a	0.1 mg	53-6.7
553457	PE Mouse IgG2a, κ Isotype Control	0.1 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/pharming/en/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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