Technical Data Sheet

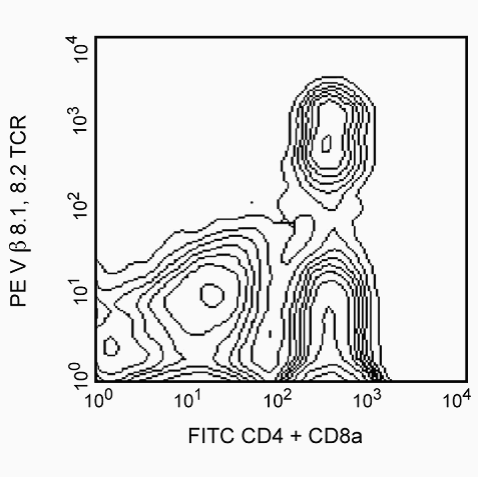
PE Mouse Anti-Mouse Vβ 8.1, 8.2 TCR

Product Information

Material Number:	**553186**
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	MR5-2
Immunogen:	C57BL/6 mouse helper T-cell clone OI6
Isotype:	Mouse (C57L) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MR5-2 antibody reacts with the Vβ 8.1 and Vβ 8.2 T-cell Receptors (TCR), but not the Vβ 8.3 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 encoded by the *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* (e.g., MA/MyJ), *Mtv-44 (e.g.,* NZW), 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*. Plate-bound MR5-2 antibody activates Vβ 8.1 or 8.2 TCR-bearing T lymphocytes.



Two-color analysis of the expression of Vβ 8.1, 8.2 TCR on peripheral T lymphocytes. *C57BL/6 lymph node cells were incubated simultaneously with PE-conjugated MR5-2, 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 BD FACScan™ flow cytometry system.*

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.

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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/pharmingen/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharmingen/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

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