Technical Data Sheet

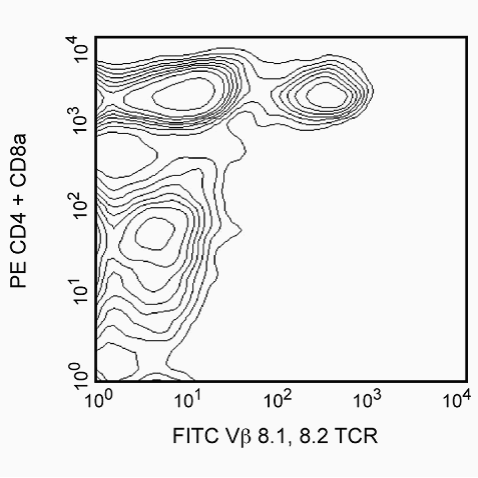
FITC Mouse Anti-Mouse Vβ 8.1, 8.2 TCR

Product Information

Material Number:	**553185**
Size:	0.25 mg
Concentration:	0.5 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 FITC-conjugated MR5-2, 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 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 FITC under optimum conditions, and unreacted FITC was 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
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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