Technical Data Sheet

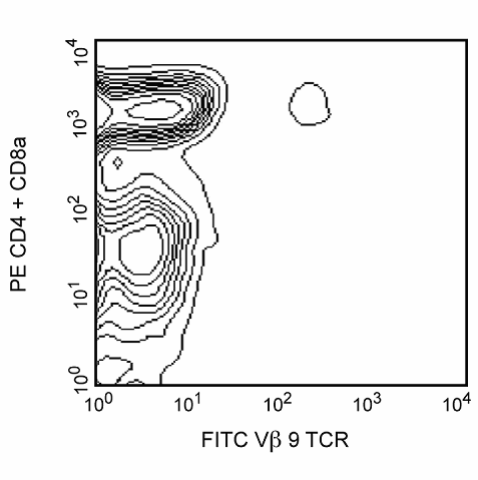
FITC Mouse Anti-Mouse Vβ9 TCR

Product Information

Material Number:	**553201**
Size:	0.25 mg
Concentration:	0.5 mg/ml
Clone:	MR10-2
Immunogen:	Mouse T-cell hybridoma 2BR18
Isotype:	Mouse (SWR) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MR10-2 antibody reacts with the Vβ9 T-cell Receptor (TCR) of mice having the *b* haplotype (e.g., A, BALB/c, CBA/Ca, C3H/He, C57BL) of the *Tcrb* gene complex. The Tcrb-V9 gene locus is deleted in mice having the *a* (*e.g.,* C57BR, C57L, SJL, SWR) or *c* (*e.g.*, RIII) haplotype. Vβ9-bearing T lymphocytes are clonally eliminated in mice expressing superantigen encoded by *Mtv-7 (Mls-1a, Mlsa)* provirus (*e.g.,* AKR, CBA/J, DBA/2), and activation or elimination of Vβ9 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 Vβ9 TCR-bearing T cells. Plate-bound MR10-2 antibody activates Vβ9 TCR-bearing T cells.



Two-color analysis of the expression of Vβ 9 TCR on peripheral lymphocytes. *C57BL/6 lymph node cells were incubated simultaneously with FITC-conjugated MR10-2, 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 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 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
550616	FITC Mouse IgG1, κ Isotype Control	0.25 mg	MOPC-31C

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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Utsunomiya Y, Kosaka H, Kanagawa O. Differential reactivity of V beta 9 T cells to minor lymphocyte stimulating antigen in vitro and in vivo. *Eur J Immunol.* 1991; 21(4):1007-1011.(Immunogen)