

Technical Data Sheet

FITC Mouse Anti-Mouse Vβ 5.1, 5.2 T-Cell Receptor

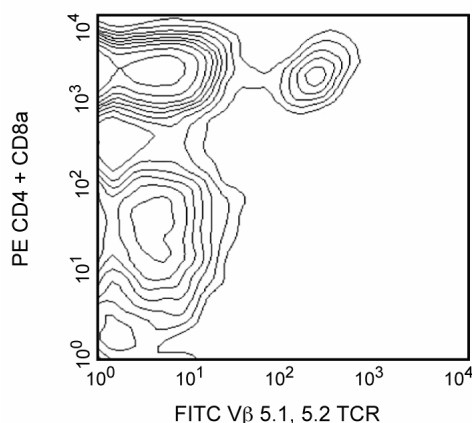
Product Information

Material Number:	553189
Size:	0.25 mg
Concentration:	0.5 mg/ml
Clone:	MR9-4
Immunogen:	Mouse T-Cell Hybridoma 2HB51.8
Isotype:	Mouse (SWR) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MR9-4 antibody reacts with the Vβ 5.1 and Vβ 5.2 T-cell Receptors of strains having the *b* haplotype (e.g., C57BL) of the *Tcrb* gene complex. These gene loci are deleted in mice having the *a* (e.g., C57BR, C57L, SJL, SWR) or *c* (e.g., RIII) *Tcrb* haplotype. Vβ5.1 and 5.2 TCR-bearing T lymphocytes are clonally eliminated, either completely or partially, in mice expressing I-E and superantigens encoded by the *Mtv-1* (*Mls-4a*, *Mlsc*), *Mtv-3* (*Mlsc*), *Mtv-8* (*Mlsf*), *Mtv-9* (*Etc-1*, *Mlsf*), *Mtv-11* (*Mlsf*), *Mtv-13* (*Mls-2a*, *Mlsc*), *Mtv-27*, *Mtv44*, and/or *Mtv-MAI* endogenous provirus (e.g., A, AKR, BALB/c, C3H/He, C58, CBA/Ca, CBA/J, DBA/2, NZB, NZW). Activation of Vβ5 TCR-expressing T cells by this determinant is dependent upon presentation by I-E. Plate-bound MR9-4 antibody activates Vβ5.1 or 5.2 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 5.1, 5.2 TCR on peripheral T lymphocytes. C57BL/6 lymph node cells were incubated simultaneously with FITC-conjugated MR9-4, 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
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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.

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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/pharming/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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