

Technical Data Sheet

PE Mouse Anti-Mouse V β 5.1, 5.2 T-Cell Receptor

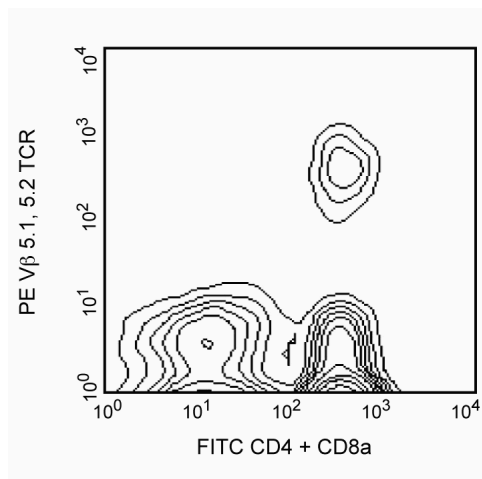
Product Information

Material Number:	553190
Size:	0.1 mg
Concentration:	0.2 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 $\leq 0.09\%$ sodium azide.

Description

The MR9-4 antibody reacts with the V β 5.1 and V β 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. V β 5.1 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 V β 5 TCR-expressing T cells by this determinant is dependent upon presentation by I-E. Plate-bound MR9-4 antibody activates V β 5.1 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 V β 5.1, 5.2 TCR on peripheral T lymphocytes. C57BL/6 lymph node cells were incubated simultaneously with PE-conjugated MR9-4 (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

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
550617	PE Mouse IgG1, κ Isotype Control	0.1 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/en/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharming/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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