Technical Data Sheet

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

Product Information

Material Number: 553190
Alternate Name: TCR Vβ5.1/5.2; Vβ5 T-cell receptor; T cell receptor beta 5
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 ≤0.09% sodium azide.

Description

The MR9-4 monoclonal antibody specifically recognizes the Vβ 5.1 and Vβ 5.2 T-cell Receptors of strains having the h 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., RII) 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, Mlsb), Mtv-3 (Mlsb), Mtv-8 (Mlsf), Mtv-9 (Etc-1, Mlsf), Mtv-11 (Mlsf), Mtv-13 (Mls-2a, Mlsb), 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.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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.

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.
## Suggested Companion Products

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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<td>PE Mouse IgG1, κ Isotype Control</td>
<td>0.1 mg</td>
<td>MOPC-31C</td>
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<td>553046</td>
<td>FITC Rat Anti-Mouse CD4</td>
<td>0.1 mg</td>
<td>RM4-5</td>
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<td>553030</td>
<td>FITC Rat Anti-Mouse CD8a</td>
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<td>53-6.7</td>
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<td>PE Mouse Anti-Mouse Vβ 5.1, 5.2 T-Cell Receptor</td>
<td>25 µg</td>
<td>MR9-4</td>
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<td>554657</td>
<td>Stain Buffer (BSA)</td>
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## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

## References


Hodes RJ, Abe R. Mouse endogenous superantigens: Ms and Ms-like determinants encoded by mouse retroviruses. *Curr Protoc Immunol.* 2001; Appendix 1:Appendix 1F. (Biology)


