Technical Data Sheet

FITC Rat Anti-Mouse Vα 8.3 TCR

Product Information

Material Number: 553376

Size: 0.25 mg

Concentration: 0.5 mg/ml

Clone: B21.14

Immunogen: Soluble αβ TCR from mouse cytotoxic T-cell clone CW3/1.1

Isotype: Rat (LOU) IgG1, κ

Reactivity: QC Testing: Mouse

Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The B21.14 antibody reacts with some members of the Vα 8 T-cell Receptor (TCR) subfamily of mice having the a, b, c, and d haplotypes of the Tcra gene complex (e.g., all strains tested). It recognizes an epitope in the CDR1 of Vα 8.3, but not Vα 8.2, TCR subfamily member, as does the KT50 mAb (Cat. No. 557096, for the biotinylated antibody). Site-directed mutagenesis has identified three amino acids which are necessary for antibody reactivity and which are unique to Vα 8.3 among the five functional Vα 8 TCR subfamily members. On a common H-2K[k] background and using the KT50 mAb, the frequency of Vα 8.3 TCR-bearing T lymphocytes has been demonstrated to be higher in Tcra[a/d] mice than in Tcra[a/b] mice. Furthermore, studies of congenic strains suggest that CD8+ Vα 8.3 TCR-bearing T lymphocytes undergo negative selection in mice expressing MHC class I antigens of the H-2[d] haplotype.

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.
### Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>553048</td>
<td>PE Rat Anti-Mouse CD4</td>
<td>0.1 mg</td>
<td>RM4-5</td>
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<tr>
<td>553032</td>
<td>PE Rat Anti-Mouse CD8a</td>
<td>0.1 mg</td>
<td>53-6.7</td>
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<tr>
<td>553924</td>
<td>FITC Rat IgG1, κ Isotype Control</td>
<td>0.25 mg</td>
<td>R3-34</td>
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</tbody>
</table>

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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


