Anti–TCR-α/β−1 (WT31)

DESCRIPTION

Specificity
The Anti-TCR-α/β−1 antibody recognizes a conformational epitope formed by the T-cell receptor (TCR) for antigen and the CD3 epsilon chain.1,2 The α/β TCR is a disulfide-linked 80-kilodalton (kDa) heterodimer consisting of a 44-kDa α chain and a 37-kDa β chain.2,3.

Antigen distribution
The TCR-α/β−1 antigen is found on approximately 97% of normal peripheral blood T lymphocytes that express the CD3 antigen.4 The TCR-α/β−1 antigen is also expressed on 50% to 70% of thymocytes.4 A small subset of normal peripheral blood T lymphocytes (1% to 9%) and thymocytes (less than 2%) lacks reactivity or reacts weakly with Anti–TCR- α/β−1.4,6 This CD3+ TCR-α/β−1−subset predominantly expresses the γδ chains of the TCR complex.4,6.

NOTE The weak reactivity described is caused by Anti–TCR-α/β−1 (WT31) recognizing a conformational epitope that exists when γ or δ subunits are associated with the CD3 ε chain.1 In cases where a CD3ε− transfectant (or other system) is employed, the Anti–TCR-α/β−1 (WT31) antibody may fail to detect the presence of α/β subunits.

Mitogenicity
Anti–TCR-α/β−1 (WT31) is mitogenic for resting peripheral blood T lymphocytes from responding individuals.7–9

Clone
The Anti-TCR-α/β−1 antibody, clone WT31, is derived from the hybridization of Sp2/0-Ag14 mouse myeloma cells with spleen cells isolated from BALB/c mice immunized with human thymocytes.5.

Composition
The Anti-TCR-α/β−1 antibody is composed of mouse IgG1 heavy chains and kappa light chains.5

Product configuration
The following are supplied in phosphate buffered saline (PBS) containing a stabilizer and a preservative.

<table>
<thead>
<tr>
<th>Form</th>
<th>Number of tests</th>
<th>Volume per test (µL)a</th>
<th>Amount provided (µg)</th>
<th>Total volume (mL)</th>
<th>Concentration (µg/mL)</th>
<th>Stabilizer</th>
<th>Preservative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure</td>
<td>100</td>
<td>20</td>
<td>12.5</td>
<td>2.0</td>
<td>6.25</td>
<td>Gelatin</td>
<td>0.1% Sodium azide</td>
</tr>
<tr>
<td>FITC</td>
<td>100</td>
<td>20</td>
<td>100</td>
<td>2.0</td>
<td>50</td>
<td>Gelatin</td>
<td>0.1% Sodium azide</td>
</tr>
</tbody>
</table>

a. Volume required to stain 10^6 cells.

Analyte Specific Reagent. Analytical and performance characteristics are not established.
Purity

Pure: ≥85% pure at bottling, as measured by polyacrylamide gel electrophoresis (PAGE)
FITC: ≤5% free fluorophore at bottling, as measured by size-exclusion chromatography (SEC)

HANDLING AND STORAGE

Store vials at 2°C–8°C. Conjugated forms should not be frozen. Protect from exposure to light. Each reagent is stable until the expiration date shown on the bottle label when stored as directed.

WARNING

All biological specimens and materials coming in contact with them are considered biohazards. Handle as if capable of transmitting infection and dispose of with proper precautions in accordance with federal, state, and local regulations. Never pipette by mouth. Wear suitable protective clothing, eyewear, and gloves.

CHARACTERIZATION

To ensure consistently high-quality reagents, each lot of antibody is tested for conformance with characteristics of a standard reagent.

WARRANTY

Unless otherwise indicated in any applicable BD general conditions of sale for non-US customers, the following warranty applies to the purchase of these products.

REFERENCES


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