Mouse Anti-Chicken TCRαβ/Vβ2

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Format</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>8250-01</td>
<td>Purified (UNLB)</td>
<td>0.5 mg</td>
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<tr>
<td>8250-02</td>
<td>Fluorescin (FITC)</td>
<td>0.5 mg</td>
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<tr>
<td>8250-08</td>
<td>Biotin (BIOT)</td>
<td>0.5 mg</td>
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<tr>
<td>8250-09</td>
<td>R-phycoerythrin (PE)</td>
<td>0.1 mg</td>
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<tr>
<td>8250-13</td>
<td>Spectral Red® (SPRD)</td>
<td>0.1 mg</td>
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</tbody>
</table>

**Overview**

**Clone**
TCR-3

**Isotype**
Mouse (BALB/c) IgG1κ

**Immunogen**
CD3⁺ TCR1⁻ TCR2⁻ Ia⁻ chicken blood mononuclear cells

**Specificity**
Chicken/Peacock/Guinea Fowl TCRαβ/Vβ2; Mr 48 & 40 kDa

**Alternate Name(s)**
T3/TCR complex, TCR alpha/beta

**Description**

The monoclonal antibody TCR-3 precipitates a CD3-associated heterodimer of Mr 88 kDa (two bands of Mr 48 kDa and 40 kDa upon reduction) on chicken peripheral blood T cells. Deglycosylation of the heterodimer yields two polypeptides of Mr 34 kDa and 31 kDa. In the chicken, two distinct subpopulations of αβ T cells appear in the thymus subsequent to the appearance of γδ T cells. These subpopulations, originally denoted as TCR-2 and TCR-3, arise sequentially in the thymus during ontogeny and are now known to represent two distinct Vβ families, Vβ1, and Vβ2, respectively. The TCR-3 monoclonal antibody reacts with approximately 9% of thymocytes, 15-25% of blood mononuclear cells, and 13% of splenocytes young adult chickens. Two-color immunofluorescence has revealed that the TCR-3⁺ thymocytes include CD4⁺CD8⁻, CD4⁻CD8⁺, CD4⁺CD8⁺, and CD4⁻CD8⁻ subpopulations. The TCR-3⁺ thymocytes can be separated into two subsets. One subset is characterized by relatively low levels of expression of the TCR-3/CD3 complex and most of the cells in this subset are CD4⁺CD8⁻. Cells in the other subset express TCR-3/CD3 in higher density and are either CD4⁺CD8⁻ or CD4⁻CD8⁺, corresponding to the more mature medullary subset of thymocytes. The TCR-3⁺ cells in the blood and spleen express relatively high levels of the TCR-3/CD3 complex and are “single positive” with CD4⁺CD8⁻ cells being four times more frequent that the CD4⁺CD8⁺ cells (~ 80% CD4⁺ vs ~ 20% CD8⁺).

**Applications**

FC – Quality tested ¹,3-⁷
IHC-FS – Reported in literature ¹,²
IP – Reported in literature ¹
Depletion – Reported in literature ¹

**Working Dilutions**

**Flow Cytometry**

- FITC and BIOT conjugates ≤ 1 μg/10⁶ cells
- PE conjugate ≤ 0.5 μg/10⁶ cells
- SPRD conjugate ≤ 0.2 μg/10⁶ cells

For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL

**Other Applications**

Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

*For Research Use Only. Not for Diagnostic or Therapeutic Use.*
Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. No preservatives or amine-containing buffer salts added. Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaNO₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaNO₃. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaNO₃ and a stabilizing agent. Store at 2-8°C. Do not freeze!
- The Spectral Red® (SPRD) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaNO₃ and a stabilizing agent. Store at 2-8°C. Do not freeze!
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific (M)SDS.

References

6. Zechmann M, Reese S, Göbel TW. Chicken CRTAM binds nectin-like 2 ligand and is upregulated on CD8⁺ αβ and γδ T lymphocytes with different kinetics. PLOS One. 2013;8(12):e81942. (FC)

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Spectral Red® is a PE/CY5 tandem conjugate.
Cy® is a registered trademark of GE Healthcare.