Technical Data Sheet
Purified Rat Anti-Mouse CD3 Molecular Complex

Product Information
Material Number: 555273
Size: 0.5 mg
Concentration: 0.5 mg/ml
Clone: 17A2
Immunogen: γδ TCR-positive T-T hybridoma D1
Isotype: Rat (SD) IgG2b, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description
The 17A2 antibody reacts with the T-cell receptor-associated CD3 complex, which is expressed on many thymocytes and mature T lymphocytes. Plate-bound mAb 17A2 has been reported to induce IL-2 production by T cells in the absence of accessory cells. Binding of 17A2 antibody to T cells can be blocked by the anti-CD3e mAb 145-2C11, suggesting that 17A2 antibody recognizes an epitope of the CD3 epsilon chain. In vivo treatment with 17A2 mAb has been reported to partially deplete T lymphocytes and temporarily down-modulates CD3 expression on 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.

Preparation and Storage
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at 4°C.

CD3 expression in spleen and thymus. BALB/c splenocytes were simultaneously stained with purified mAb 17A2 (bottom left panel) and PE-conjugated anti-mouse CD19 mAb 1D3 (top left & bottom left panels), followed by FITC-conjugated anti-rat IgG2b mAb G15-337 (Cat. No. 553884) (top left & bottom left panels). BALB/c thymocytes were also stained with 17A2 mAb (bottom right panel), followed by FITC-conjugated anti-rat IgG2b (top right & bottom right panels). Flow cytometry was performed on a BD FACSCan™ flow cytometry system.
Recommended Assay Procedure:

Precautions: Polyclonal goat anti-rat Ig (Cat. No. 554016) has been reported to have weak reactivity to to this rat IgG2b mAb. Therefore, the use of FITC-conjugated anti-rat IgG2b mAb G15-337 (Cat. No. 553884) is recommended as a second step for flow cytometry.

Note: The hamster anti-mouse CD3ε mAb 145-2C11 (Cat. No. 553057) has been reported to induce greater functional responses than 17A2 antibody in assays which depend on presentation of the monoclonal antibody by Fc receptor-positive macrophages.

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>553884</td>
<td>FITC Anti-Rat IgG2b</td>
<td>0.5 mg</td>
<td>G15-337</td>
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<tr>
<td>557399</td>
<td>PE Rat Anti-Mouse CD19</td>
<td>0.1 mg</td>
<td>1D3</td>
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<tr>
<td>553057</td>
<td>Purified NA/LE Hamster Anti-Mouse CD3ε</td>
<td>0.5 mg</td>
<td>145-2C11</td>
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<tr>
<td>553986</td>
<td>Purified Rat IgG2b, Kappa Isotype Standard</td>
<td>0.5 mg</td>
<td>A95-1</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Caution: Sodium azide yields highly toxic hydrozonic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

