APC Rat Anti-Mouse CD25

Product Information

**Material Number:** 557192

**Alternate Name:** Interleukin-2 receptor alpha chain; IL-2RA; IL-2Rα; Il2ra; IL-2R p55

**Size:** 0.1 mg

**Concentration:** 0.2 mg/ml

**Clone:** PC61

**Immunogen:** IL-2-dependent cytolytic mouse T-cell clone B6.1

**Isotype:** Rat (OFA) IgG1, λ

**Reactivity:** QC Testing: Mouse

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

**Description**

The PC61 monoclonal antibody specifically binds to CD25, the low-affinity IL-2 Receptor α chain (IL-2Rα, p55) expressed on activated T and B lymphocytes from all mouse strains tested. IL-2Rα by itself is not a signaling receptor. However, it can combine with IL-2 Receptor β (CD122) and γc (CD132) chains to form high-affinity, signaling receptor complexes for IL-2. Resting T and B lymphocytes and resting and activated NK cells do not express IL-2Rα. CD25 is transiently expressed at a low level during normal B-cell development in the bone marrow on the CD45R/B220low TdT- slg- Pre-B/Pre-B-II and CD45R/B220low TdT- slgM+ slgD- immature B stages, but not on the CD45R/B220low TdT+ slg- Pro-B/Pre-B-I stage nor on CD45R/B220high TdT- slgM+ slgD+ mature B cells. It is expressed at a higher level during a very early stage of T-cell development in fetal and adult thymus. Peripheral CD25+CD4+ lymphocytes called regulatory T (Treg) cells are involved in the maintenance of self-tolerance. It has also been reported that dendritic cells express CD25, recognized by mAb 7D4. The PC61 antibody recognizes an epitope of CD25 which is distinct from the IL-2 binding site and from those recognized by mAbs 3C7 and 7D4. The PC61 antibody recognizes an epitope of CD25 which is distinct from the IL-2 binding site and from those recognized by mAbs 3C7 and 7D4. It blocks binding of IL-2 to CD25, presumably by inducing a conformational change in CD25.

**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 to APC under optimum conditions, and unconjugated antibody and free APC were removed.

**Application Notes**

**Application**

| Flow cytometry | Routinely Tested |

**Recommended Assay Procedure**

The APC fluorochrome is excited by laser lines from 595 to 647 nm, and its emission is collected in a detector for fluorescence wavelengths between 640 and 680 nm. For detection of low-affinity CD25 expression, we recommend the use of the PE conjugate of PC61 antibody (Cat. No. 553866) or the biotin conjugate of the 7D4 antibody (Cat. No. 553069/553070) with a "bright" second-step reagent, such as Streptavidin-PE (Cat. No. 554061). Since applications vary, each investigator must determine dilutions appropriate for individual use.

**Suggested Companion Products**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
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<tbody>
<tr>
<td>550884</td>
<td>APC Rat IgG1, λ Isotype Control</td>
<td>0.1 mg</td>
<td>A110-1</td>
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<td>561048</td>
<td>APC Rat Anti-Mouse CD25</td>
<td>25 µg</td>
<td>PC61</td>
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<td>Stain Buffer (FBS)</td>
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<tr>
<td>554567</td>
<td>Stain Buffer (BSA)</td>
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<td>(none)</td>
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<tr>
<td>553866</td>
<td>PE Rat Anti-Mouse CD25</td>
<td>0.2 mg</td>
<td>PC61</td>
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<tr>
<td>553069</td>
<td>Biotin Rat Anti-Mouse CD25</td>
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<td>7D4</td>
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<tr>
<td>553070</td>
<td>Biotin Rat Anti-Mouse CD25</td>
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<td>7D4</td>
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<tr>
<td>554061</td>
<td>PE Streptavidin</td>
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</table>

**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. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.


References
Chen J, Ma A, Young F, Alt FW. IL-2 receptor alpha chain expression during early B lymphocyte differentiation. Int Immunol. 1994; 6(8):1265-1268. (Biology)