**CD25 (2A3)**

**Monoclonal Antibodies Detracting Human Antigens**

- **Monoclonal Antibodies Detecting Human Antigens**

**Research Applications**

Research applications include:
- Studies of T-lymphocyte activation
- Enumeration of cells infected with human T-lymphocyte leukemia virus (HTLV) I and II
- Identification of T-cell subsets in human immunodeficiency virus (HIV)
- Research on regulatory T cells

**Description**

**Specificity**

The CD25 antibody recognizes a 55-kilodalton (kDa) type I integral membrane glycoprotein. The CD25 antigen is also known as the human low-affinity interleukin-2 receptor α chain (IL-2Rα) and the Tac antigen.

**Antigen Distribution**

The CD25 antigen is present on a subset of peripheral blood lymphocytes. Antigen density increases on phytohemagglutinin (PHA)-, concanavalin A (Con A)-, and CD3-activated T lymphocytes; T lymphocytes from mixed lymphocyte cultures; and HTLV-infected T-lymphocyte leukemia lines, for example, HUT-102. Recombinant IL-2 blocks the binding of CD25 to PHA-activated T lymphocytes. CD4+CD25+ regulatory T cells might directly regulate the function of responsive T cells.

**Clone**

The CD25 antibody, clone 2A3, is derived from the hybridization of NS-1 mouse myeloma cells with spleen cells isolated from BALB/c mice immunized with PHA-activated human T lymphocytes.

**Composition**

The CD25 antibody is composed of mouse IgG1 heavy chains and kappa light chains.

**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>10</td>
<td>2</td>
<td>5</td>
<td>Gelatin 0.1%</td>
<td>Sodium azide</td>
</tr>
<tr>
<td>FITC</td>
<td>100</td>
<td>20</td>
<td>20</td>
<td>2</td>
<td>10</td>
<td>Gelatin 0.1%</td>
<td>Sodium azide</td>
</tr>
<tr>
<td>PE</td>
<td>50</td>
<td>20</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>Gelatin 0.1%</td>
<td>Sodium azide</td>
</tr>
<tr>
<td>PE-Cy™</td>
<td>100</td>
<td>5</td>
<td>6.5</td>
<td>0.5</td>
<td>13.0</td>
<td>Gelatin 0.1%</td>
<td>Sodium azide</td>
</tr>
</tbody>
</table>

For Research Use Only. Not for use in diagnostic or therapeutic procedures.
**PROCEDURE**

Visit our website (bdbiosciences.com) or contact your local BD representative for the lyse/wash protocol for direct immunofluorescence.

**REPRESENTATIVE DATA**

Flow cytometric analysis was performed on whole blood stained with the indicated conjugated antibody. Laser excitation was at 488 nm, 635 nm, or 640 nm.

The APC-R700 conjugate is read off the red laser (640 nm) using a 685 longpass mirror with a 712/21 bandpass filter. Representative data analyzed with a BD FACS™ brand flow cytometer is shown in the following plots.

**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\(^{15,16}\) 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.

---

<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>APC</td>
<td>100</td>
<td>5</td>
<td>6</td>
<td>0.5</td>
<td>12</td>
<td>Gelatin</td>
<td>0.1% Sodium azide</td>
</tr>
<tr>
<td>APC-R700(^b)</td>
<td>100</td>
<td>5</td>
<td>6.25</td>
<td>0.5</td>
<td>12.5</td>
<td>BSA</td>
<td>ProClin® 300</td>
</tr>
</tbody>
</table>

\(^a\) Volume required to stain 10\(^6\) cells.
\(^b\) BD Horizon™ APC-R700.
Some reagents are bottled with ProClin 300, and contain 0.003% of a mixture of CMIT/MIT (3:1), CAS number 55965-84-9.

**Warning**

H317 May cause an allergic skin reaction.

Wear protective gloves/eye protection. Wear protective clothing. Avoid breathing mist/vapours/spray. If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. Dispose of contents/container in accordance with local/regional/national/international regulations.

**CHARACTERIZATION**

To ensure consistently high-quality reagents, each lot of antibody is tested for conformance with characteristics of a standard reagent. Representative flow cytometric data is included in this data sheet.

**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.

THE PRODUCTS SOLD HEREUNDER ARE WARRANTED ONLY TO CONFORM TO THE QUANTITY AND CONTENTS STATED ON THE LABEL OR IN THE PRODUCT LABELING AT THE TIME OF DELIVERY TO THE CUSTOMER. BD DISCLAIMS HEREBY ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE AND NONINFRINGEMENT. BD’S SOLE LIABILITY IS LIMITED TO EITHER REPLACEMENT OF THE PRODUCTS OR REFUND OF THE PURCHASE PRICE. BD IS NOT LIABLE FOR PROPERTY DAMAGE OR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING PERSONAL INJURY, OR ECONOMIC LOSS, CAUSED BY THE PRODUCT.

**REFERENCES**


PATENTS AND TRADEMARKS

Cy™ is a trademark of GE Healthcare. This product is subject to proprietary rights of GE Healthcare and Carnegie Mellon University, and is made and sold under license from GE Healthcare. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one, return this material, unopened, to BD Biosciences, 2350 Qume Drive, San Jose, CA 95131, and any money paid for the material will be refunded.

ProClin is a registered trademark of Rohm and Haas Company.

BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2015 BD