Monoclonal Antibodies Detecting Human Antigens

Anti–P-glycoprotein (15D3)

Research applications include studies of:
- Multidrug resistant (MDR) cells in human cancers

DESCRIPTION

Specificity
The Anti–P-glycoprotein (P-gp) antibody recognizes a 170-kilodalton (kDa) protein from MDR cells.

Antigen distribution
The P-glycoprotein antibody is a transmembrane protein that acts as an ATP-dependent efflux pump for a large variety of drugs. This efflux activity has been suggested to lead to resistance to the drugs used in chemotherapy. P-glycoprotein is present in many normal cell types including secretory cells, and might protect them from naturally occurring xenobiotics.

Clone
The Anti–P-glycoprotein (P-gp) antibody, clone 15D3, is generated from the fusion of Sp2/0 myeloma cells with spleen cells from BALB/c mice immunized with a BA3T3 fibroblast line (BATV.2) transfected with the human MDR1 gene.

Composition
The Anti–P-glycoprotein (P-gp) antibody is composed of mouse IgG1 heavy chains and kappa light chains.

Product configuration
The following is 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)</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>PE</td>
<td>50</td>
<td>20</td>
<td>25</td>
<td>1.0</td>
<td>25</td>
<td>Gelatin</td>
<td>0.1% Sodium azide</td>
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</tbody>
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a. Volume required to stain 10^6 cells.

PROCEDURE

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

Method for Direct Immunofluorescence
Add 20 µL of reagent to 50 µL of whole blood. Mix thoroughly and incubate for 15 to 30 minutes in the dark at room temperature (20°C–25°C). Lyse the erythrocytes with 1 mL BD FACSTM™ lysing solution for 10 minutes. Wash with 1X PBS with 0.1% sodium azide, add 0.5 mL of 1% paraformaldehyde, mix thoroughly, and analyze. If samples are not to be analyzed immediately, mix thoroughly just prior to analysis.

CAUTION All excess Anti–P-glycoprotein antibody must be washed out prior to intracellular staining to avoid nonspecific internal staining.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.
REPRESENTATIVE DATA
Flow cytometric analysis was performed on 8226/S, 8226 DOX6, and 8226 DOX40 cell lines.\textsuperscript{10} Laser excitation was at 488 nm.

Figure 1  Cell lines analyzed with a BD FACS™ brand flow cytometer

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\textsuperscript{11,12} 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. 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.

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REFERENCES


