Monoclonal Antibodies Detecting Human Antigens

CD2 (S5.2)

Research applications include:
- Enumeration of CD2+ cells in peripheral blood
- Analysis of natural killer (NK) lymphocyte subsets
- Study of dendritic cells

DESCRIPTION

Specificity
The CD2 antibody recognizes a human lymphocyte antigen, 45 to 50 kilodaltons (kDa), which also forms the binding site for sheep erythrocytes.

Antigen distribution
The CD2 antigen is present on approximately 75% of normal peripheral blood lymphocytes and 95% to 99% of thymocytes. It is also found on a subset of monocytes (approximately one-third) that might be precursors to dendritic cells. The CD2 antibody reacts with essentially all T lymphocytes and with a subset of NK lymphocytes. CD2 and CD58 have been shown to be co-receptors. The interaction of CD2 antigen and CD58 antigen facilitates antigen recognition by T lymphocytes.

Clone
The CD2 antibody, clone S5.2, is derived from hybridization of Sp2/0 mouse myeloma cells with spleen cells from BALB/c mice immunized with T lymphocytes activated by mixed lymphocyte culture.

Composition
The CD2 antibody is composed of mouse IgG2a heavy chains and kappa light chains.

Product configuration
The following reagents 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)</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>2.5</td>
<td>2</td>
<td>12.5</td>
<td>Gelatin</td>
<td>0.1% Sodium azide</td>
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<tr>
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<tr>
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<tr>
<td>V450b</td>
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<td>Gelatin</td>
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</tbody>
</table>

CAUTION Prolonged exposure of cells to paraformaldehyde can lead to increased autofluorescence in the violet channels. For overnight storage of stained cells, wash and resuspend in buffer without paraformaldehyde after 1 hour of fixation.

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 405 nm, 488 nm, and 635 nm. Representative data analyzed with a BD FACSTM brand flow cytometer is shown in the following figure.

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 infection10,11 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


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