Monoclonal Antibodies
Detecting Human Antigens

CD81 (JS-81)

Form         Catalog number
APC-H7        656647

Product availability varies by region. Contact BD Biosciences Customer Support or your local sales representative for information.

RESEARCH APPLICATIONS

Research applications include:
• Studies of B-cell proliferation
• Research on antibody deficiency
• Research on the hepatitis C virus receptor

DESCRIPTION

Specificity
The CD81 antibody recognizes a 26-kilodalton (kDa) member of the tetraspanin family (TM4SF). The CD81 antigen is also known as TAPA-1.

Antigen distribution
The CD81 antigen has a very broad cellular distribution, being expressed on cells of hematopoietic, neuroectodermal, and mesenchymal origin. In hematopoietic cells, the CD81 antigen is expressed on B and T lymphocytes, natural killer (NK) cells, thymocytes, eosinophils, germinal center follicular dendritic cells, and to a variable extent on monocytes. The CD81 antigen is not expressed on neutrophils, platelets, or erythrocytes.

The CD81 antibody has been shown to have anti-proliferative effects on different lymphoid cell lines, particularly those derived from large cell lymphomas. The CD81 antigen is involved in cell growth and signal transduction. Immunoprecipitation studies reveal that the CD81 antigen is a component of a multimolecular complex that can include the Leu13 molecule, and the CD19 and CD21 molecules in B cells.

Clone
The CD81 antibody, clone JS-81, is derived from the hybridization of P3/NS1/1-Ag4-1 mouse myeloma cells with spleen cells isolated from mice immunized with the Burkitt lymphoma cell line, Ramos.

Composition
The CD81 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>APC-H7</td>
<td>100</td>
<td>5</td>
<td>50</td>
<td>0.5</td>
<td>100</td>
<td>BSA</td>
<td>ProClin® 300</td>
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</tbody>
</table>

a. Volume required to stain 10^6 cells.

CAUTION Some APC-H7 conjugates show changes in their emission spectra with prolonged exposure to paraformaldehyde or light. 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 635 nm. Representative data analyzed with a BD FACSTM brand flow cytometer is shown in the following plot.

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 infection11,12 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.

Some reagents are bottled with ProClin 300, and contain 0.003% of a mixture of CMIT/MIT (3:1), CAS number 55965-84-9.

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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