**CD79a (HM47)**

**Monoclonal Antibodies Detecting Human Antigens**

**Form** | **Catalog number**
--- | ---
PE | 340579
PerCP-Cy5.5 | 341643
APC | 340578

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

**RESEARCH APPLICATIONS**

Research applications include:
- Characterization of B-lymphocyte neoplasms\(^1,2\)
- Analysis of B-lymphocyte differentiation in bone marrow\(^3\)

**DESCRIPTION**

**Specificity**

The CD79a antibody recognizes the cytoplasmic domain of a 47-kilodalton (kDa) membrane glycoprotein present on B lymphocytes.\(^4\)

**Antigen distribution**

The CD79a antigen, also referred to as mb-1, is expressed on B cells at various stages of differentiation, from the pre-B cell stage, probably before expression of cytoplasmic \(\mu\) chain, to the plasma cell stage, where it is detected only in the cytoplasm.\(^4,5\) The CD79a antigen associates with the CD79b antigen to form part of the B-cell receptor complex. It has been suggested that the CD79a antigen can play a role in mediating the transport of IgM to the cell surface.\(^3,5\)

**Clone**

The CD79a antibody, clone HM47,\(^4\) is derived from the hybridization of Sp2/0 mouse myeloma cells with spleen cells from BALB/c mice immunized with a synthetic peptide conjugated to thyroglobulin. The peptide has the sequence representing amino acids 202–216 inclusive as deduced from the human mb-1 cDNA sequence.

**Composition**

The CD79a antibody is composed of mouse IgG\(_1\) 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 (µL)(^a)</th>
<th>Amount provided (µg)</th>
<th>Total volume (mL)</th>
<th>Concentration (µg/mL)</th>
<th>Stabilizer</th>
<th>Preservative</th>
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</thead>
<tbody>
<tr>
<td>PE</td>
<td>50</td>
<td>20</td>
<td>1.6</td>
<td>1.0</td>
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<td>Gelatin 0.1% Sodium azide</td>
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<tr>
<td>PerCP-Cy5.5</td>
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<td>Gelatin 0.1% Sodium azide</td>
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<tr>
<td>APC</td>
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<td>5</td>
<td>1.5</td>
<td>0.5</td>
<td>3.0</td>
<td>Gelatin 0.1% Sodium azide</td>
</tr>
</tbody>
</table>

\(a\). Volume required to stain 10\(^6\) cells.

**PROCEDURE**

See the BD FACSTM Permeabilizing Solution 2 technical data sheet (Catalog No. 340973 or 347692), available on our website (bdbiosciences.com) or from your local BD representative, for the abbreviated intracellular staining procedure. Alternatively, see the BD IntraSureTM technical data sheet (Catalog No. 641776), also available on our website (bdbiosciences.com) or from your local BD representative, for the procedure for staining, fixing, and permeabilizing cells.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.
REPRESENTATIVE DATA

Flow cytometric analysis was performed on normal whole blood and a blood sample from a chronic lymphocytic leukemia (CLL) patient that was stained with the PE conjugate. Laser excitation was at 488 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 infection6,7 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

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