CD23 (EBVCS-5)

FORMS

<table>
<thead>
<tr>
<th>Form</th>
<th>Catalog number</th>
</tr>
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<tbody>
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<td>FITC</td>
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<tr>
<td>PE</td>
<td>341008</td>
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<tr>
<td>APC</td>
<td>340934</td>
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<tr>
<td>APC-R700</td>
<td>659116</td>
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DESCRIPTION

Specificity

The CD23 antibody recognizes a 45-kilodalton (kDa) type II membrane glycoprotein, which is a human B-lymphocyte differentiation antigen. The CD23 antigen is also known as the low affinity IgE receptor, Fc epsilon RII, and FcεRII.1–4

Antigen distribution

The CD23 antigen is present at low density on most normal B lymphocytes5 and at higher levels on activated B lymphocytes, Epstein-Barr virus (EBV)–transformed lymphoblasts, chronic lymphocytic leukemia (CLL) cells of B-lymphocyte origin, and tonsillar B lymphocytes.2 The human B-lymphoblastoid cell line, RPMI-8866, releases a 25-kDa species into the culture supernatant.5

The CD23 antigen density increases on the surface of B lymphocytes shortly after activation.7 Expression is induced by interleukin-4 (IL-4) and down-regulated by B-cell growth factor (BCGF).1,6 The antigen is lost after isotype switching to IgA, IgG, or IgE.3,6 The CD23 antigen is not present on immature bone marrow B lymphocytes or on T lymphocytes,3 but it has been reported on monocytes, hypodense eosinophils, and a subpopulation of platelets.8

Clone

The CD23 antibody, clone EBVCS-5 (Leu 20),4,9 is derived from the hybridization of Sp2/0 mouse myeloma cells with spleen cells isolated from BALB/c mice immunized with an in vitro transformed EBV cell line.10

Composition

The CD23 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)4</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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<tr>
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<td>12.5</td>
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<td>12.5</td>
<td>Gelatin</td>
<td>0.1% Sodium azide</td>
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<td>12.5</td>
<td>Gelatin</td>
<td>0.1% Sodium azide</td>
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</tbody>
</table>

Analyte Specific Reagent. Analytical and performance characteristics are not established.
CAUTION Some APC-R700 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.

NOTE As a consideration for instrument selection, the APC-R700 conjugate is read off the red laser using an appropriate longpass (LP) mirror and bandpass (BP) filter. (For your information, the technical information for this data sheet was generated on a BD FACS™ brand flow cytometer using a 640-nm red laser, a 685 LP mirror, and a 712/21 BP filter.)

Purity

FITC: ≤5% free fluorophore at bottling, as measured by size-exclusion chromatography (SEC)

PE, APC, APC-R700: ≤20% free fluorophore at bottling, as measured by SEC

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 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.

<table>
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<th>Amount provided (µg)</th>
<th>Total volume (mL)</th>
<th>Concentration (µg/mL)</th>
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</tr>
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</table>

a. Volume required to stain 10^6 cells.
b. BD Horizon™ APC-R700

REFERENCES


PATENTS AND TRADEMARKS

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