Monoclonal Antibodies Detecting Human Antigens

CD22 (S-HCL-1)

Form	Catalog number
FITC	347573
PE	347577
PerCP-Cy5.5	658329
APC	340933

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

RESEARCH APPLICATIONS

Research applications include:

- Characterization of leukemias and lymphomas[1-4]
- Analysis of B-lymphocyte development[5]

DESCRIPTION

Specificity

The CD22 antibody recognizes a 135-kilodalton (kDa) type I transmembrane glycoprotein in the immunoglobulin superfamily.[6,7] The CD22 antigen is also known as BL-CAM, Bgp135, and Siglec2.[7]

Antigen distribution

The CD22 antigen is expressed in the cytoplasm of all B lymphocytes and is present only on the cell surface of mature B lymphocytes.[5] In contrast with the CD10, CD19, and CD20 antigens, the CD22 antigen is still present on lymphoplasmacytoid cells but its expression is diminished on fully matured plasma cells.[8] The CD22 antigen is expressed in most B-cell leukemias, including hairy cell leukemia,[3,6] and nearly all B-cell lymphomas,[9] but not in T-cell leukemias or lymphomas.[2]

The CD22 antigen binds to sialylated glycoproteins, mediating cell adhesion.[10] The CD22 antigen modulates B-cell activation, presumably through its association with signaling molecules.[10,11]

Clone

The CD22 antibody, clone S-HCL-1,[6] is derived from the hybridization of NS-1 mouse myeloma cells with spleen cells isolated from CD-1 mice immunized with whole hairy cell leukemia cells and membrane preparations derived from them.[3]

Composition

The CD22 antibody is composed of mouse IgG_{2b} heavy chains and kappa light chains.

Product configuration

The following are supplied in phosphate buffered saline (PBS) containing a stabilizer and a preservative.

Form	Number of tests	Volume per test (µL)[a]	Amount provided (µg)	Total volume (mL)	Concentration (µg/mL)	Stabilizer	Preservative
FITC	100	20	25	2.0	12.5	Gelatin	0.1% Sodium azide
PE	100	20	25	2.0	12.5	Gelatin	0.1% Sodium azide
PerCP-Cy™5.5	50	20	3	1.0	3	Gelatin	0.1% Sodium azide
APC	100	5	12.5	0.5	25	Gelatin	0.1% Sodium azide

a. Volume required to stain 10^6 cells.

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

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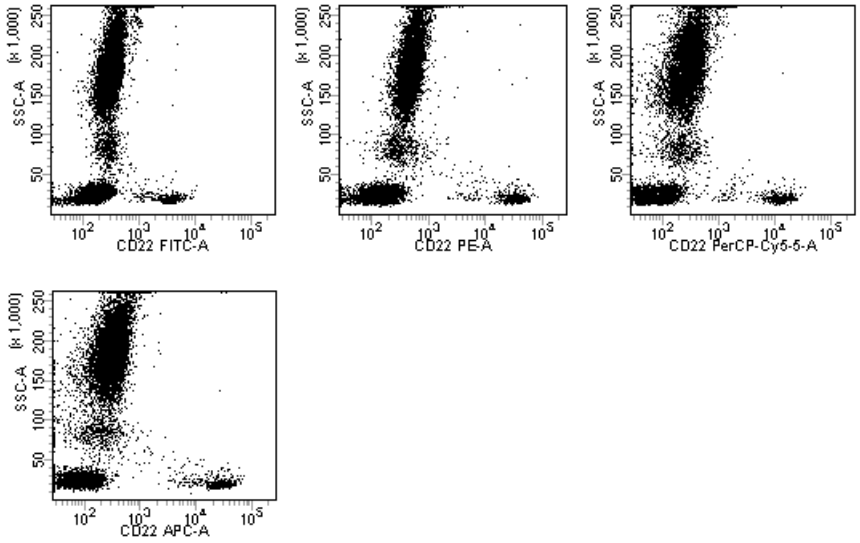
PROCEDURE

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 peripheral blood stained with the indicated conjugated antibody and gated on lymphocytes. Laser excitation was at 488 nm or 635 nm. Representative data analyzed with a BD FACS™ brand flow cytometer is shown in the following plots.



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[12,13] 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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PATENTS AND TRADEMARKS