Monoclonal Antibodies Detecting Human Antigens

CD20 (L27)

Form	Catalog number	Form	Catalog number
Pure	347670	APC	340941
FITC	347673	APC-Cy7	335794
PE	346595	APC-H7	641396
PerCP	347674	V450	642274
PerCP-Cy5.5	340955	V500-C	647463
PE-Cy7	335793		

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

RESEARCH APPLICATIONS

Research applications include:

- Study of B lymphocytes in peripheral blood
- Research on B-lymphocyte activation[1]
- Isolation of B lymphocytes from peripheral blood by cell sorting[2]
- Study of B-lymphocyte neoplasms[3]
- Research on CD20-mediated apoptosis[4]
- Study of rituximab interaction with cells[5]

DESCRIPTION

Specificity

The CD20 antibody recognizes a phosphoprotein with a molecular weight of 35 or 37 kilodaltons (kDa), depending on the degree of phosphorylation. The antigen is not glycosylated.[6]

Antigen distribution

The CD20 antigen is expressed on B lymphocytes synchronous with the expression of surface IgM.[6,7] The antigen is present on both resting and activated B lymphocytes but is lost before differentiation into plasma cells.[6] The CD20 antigen is found in both mantle-zone and germinal-center areas of secondary follicles of lymphoid tissue and can be expressed on follicular dendritic cells (FDCs) in germinal centers.[6] Low-level expression of the CD20 antigen has been detected on a subpopulation of T lymphocytes.[8]

Clone

The CD20 antibody, clone L27[9], is derived from the hybridization of Sp2/0 mouse myeloma cells with spleen cells from BALB/c mice immunized with the LB lymphoblastoid cell line.

Composition

The CD20 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.

Form	Number of tests	Volume per test (µL)[a]	Amount provided (µg)	Total volume (mL)	Concentration (µg/mL)	Stabilizer	Preservative
Pure	100	20	100	2.0	50	Gelatin	0.1% Sodium azide
FITC	100	20	100	2.0	50	Gelatin	0.1% Sodium azide
PE	50	20	25	1.0	25	Gelatin	0.1% Sodium azide
PerCP	100	20	50	2.0	25	Gelatin	0.1% Sodium azide

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

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Form	Number of tests	Volume per test (µL)[a]	Amount provided (µg)	Total volume (mL)	Concentration (µg/mL)	Stabilizer	Preservative
PerCP-Cy™5.5	50	20	10	1.0	10	Gelatin	0.1% Sodium azide
PE-Cy™7	100	5	50	0.5	100	Gelatin	0.1% Sodium azide
APC	100	5	20	0.5	40	Gelatin	0.1% Sodium azide
APC-Cy7	100	5	25	0.5	50	Gelatin	0.1% Sodium azide
APC-H7	100	5	50	0.5	100	Gelatin	0.1% Sodium azide
V450[b]	100	5	50	0.5	100	Gelatin	0.1% Sodium azide
V500-C[b]	100	5	50	0.5	100	BSA	ProClin® 950

a. Volume required to stain 10^6 cells.
b. BD Horizon™ V450, BD Horizon™ V500-C.

CAUTION Some APC-Cy7 conjugates, and to a lesser extent PE-Cy7 and 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.

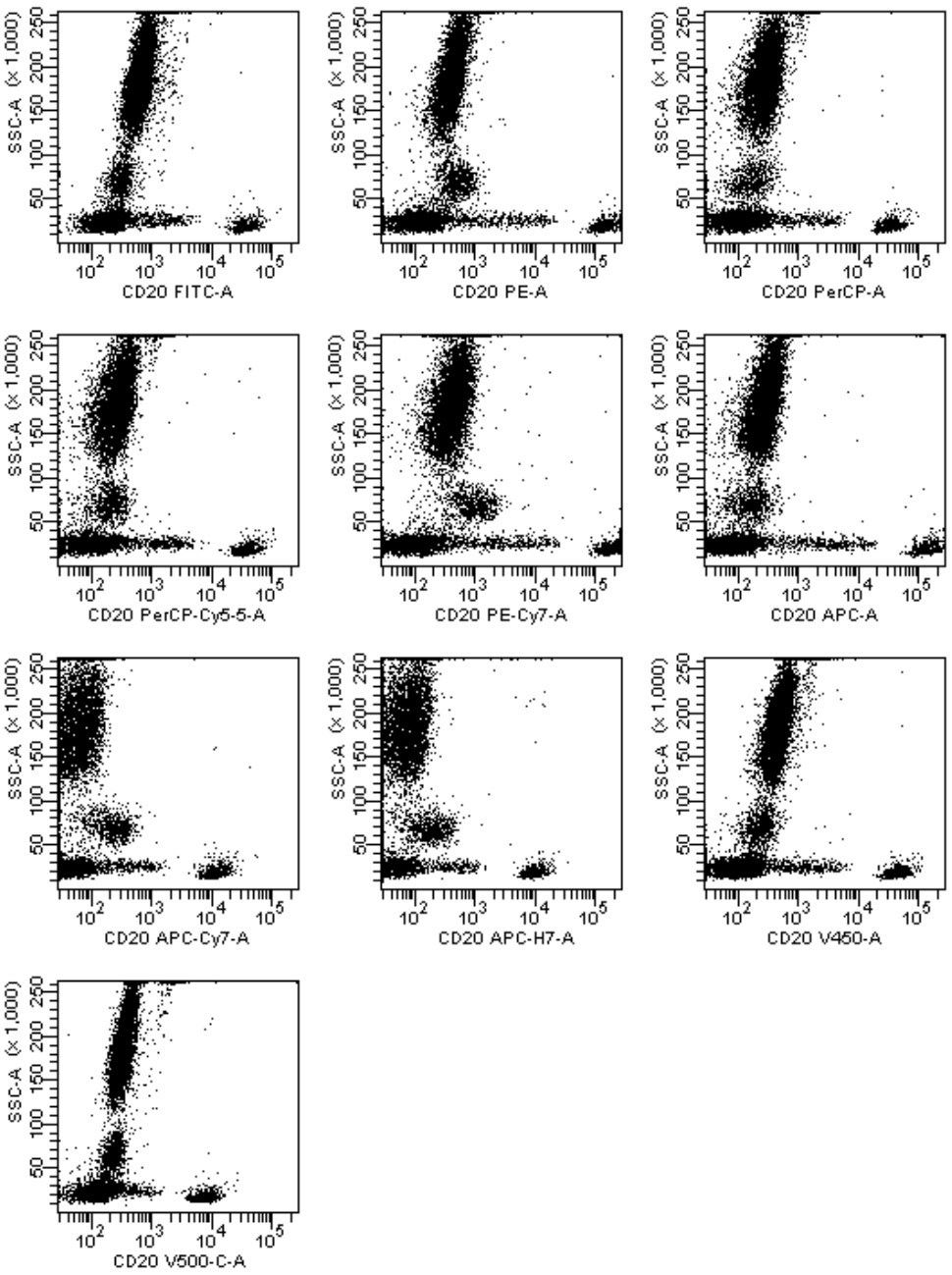
CAUTION Prolonged exposure of cells to paraformaldehyde can lead to increased autofluorescence in the violet channels. For overnight storage of stained cells, wash and resuspend in buffer without paraformaldehyde after 1 hour of fixation.

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, 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[10,11] 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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PATENTS AND TRADEMARKS

APC-Cy7: US Patent 5,714,386.

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