

# Monoclonal Antibodies Detecting Human Antigens

## CD19 (SJ25C1)

Form	Catalog number	Form	Catalog number
FITC	340409	APC-R700	659121
PE	340364	APC-Cy7	348794
PerCP	340421	APC-H7	641395
PerCP-Cy5.5	340951	AmCyan	339190
PE-Cy7	341093	V450	644491
APC	340437		

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-lymphocyte proliferation and activation<sup>1,2</sup>
- Enumeration of B-lymphocytes in peripheral blood<sup>3</sup>
- Research on B-lymphocyte neoplasms<sup>4</sup>
- Investigation into B-cell differentiation in bone marrow<sup>5</sup>
- Examination of B-lymphocyte apoptosis<sup>6</sup>

### DESCRIPTION

#### Specificity

The CD19 antibody recognizes a 90-kilodalton (kDa) antigen that is present on human B lymphocytes.<sup>7,8</sup>

#### Antigen distribution

The CD19 antigen is present on approximately 7% to 23% of human peripheral blood lymphocytes<sup>9</sup> and on splenocytes.<sup>10</sup> CD19 is reactive with the B-lymphocyte areas of normal tonsil and lymph nodes.<sup>3</sup> The CD19 antigen is present on human B lymphocytes at all stages of maturation.<sup>3</sup> CD19 does not react with resting or activated T lymphocytes, granulocytes, or monocytes.<sup>5</sup>

#### Clone

The CD19 antibody, clone SJ25C1,<sup>8</sup> is derived from the hybridization of Sp2/0 mouse myeloma cells with spleen cells isolated from BALB/c mice immunized with NALM1 and NALM16 cells.

#### Composition

The CD19 antibody is composed of mouse IgG<sub>1</sub> 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) <sup>a</sup>	Amount provided (μg)	Total volume (mL)	Concentration (μg/mL)	Stabilizer	Preservative
FITC	50	20	6	1	6	Gelatin	0.1% Sodium azide
PE	50	20	12.5	1	12.5	Gelatin	0.1% Sodium azide
PerCP	50	20	12.5	1	12.5	Gelatin	0.1% Sodium azide
PerCP-Cy <sup>TM</sup> 5.5	50	20	5	1	5	Gelatin	0.1% Sodium azide
PE-Cy <sup>TM</sup> 7	100	5	12.5	0.5	25	Gelatin	0.1% Sodium azide
APC	100	5	25	0.5	50	Gelatin	0.1% Sodium azide
APC-R700 <sup>b</sup>	100	5	6.25	0.5	12.5	BSA	ProClin <sup>TM</sup> 300

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

**Becton, Dickinson and Company**  
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 San Jose, CA 95131 USA



Form	Number of tests	Volume per test (µL) <sup>a</sup>	Amount provided (µg)	Total volume (mL)	Concentration (µg/mL)	Stabilizer	Preservative
APC-Cy7	100	5	25	0.5	50	Gelatin	0.1% Sodium azide
APC-H7	100	5	25	0.5	50	Gelatin	0.1% Sodium azide
AmCyan	100	5	12.5	0.5	25	BSA	0.1% Sodium azide
V450 <sup>b</sup>	100	5	12.5	0.5	25	Gelatin	0.1% Sodium azide

a. Volume required to stain  $10^6$  cells.

b. BD Horizon™ APC-R700, BD Horizon™ V450.

**CAUTION** Some APC-Cy7 conjugates, and to a lesser extent PE-Cy7, APC-H7, and 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.

**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.

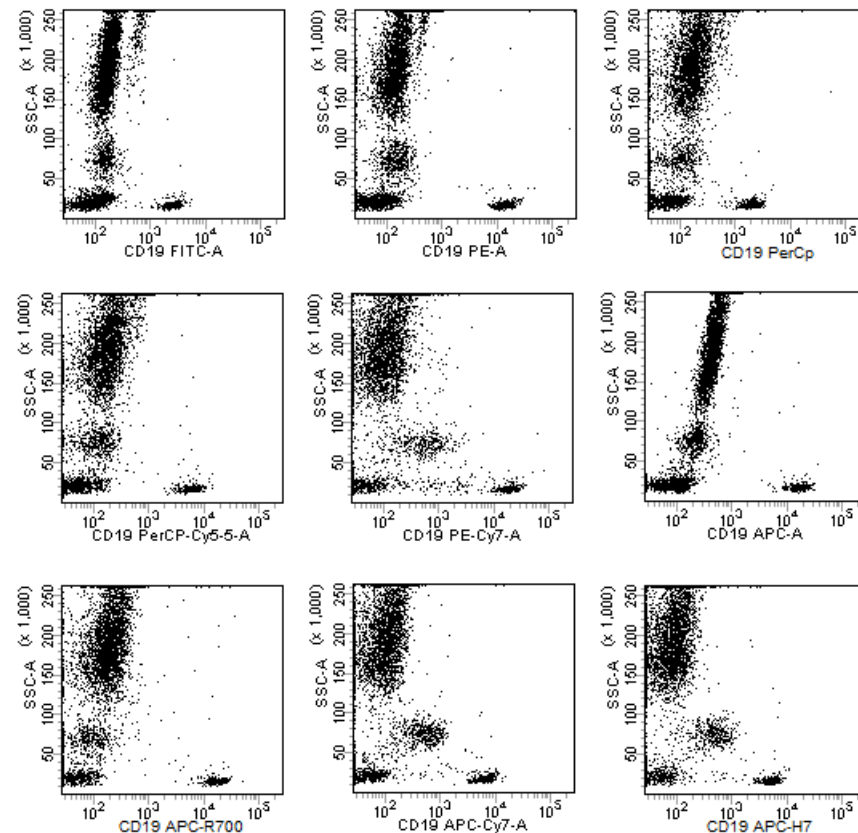
## PROCEDURE

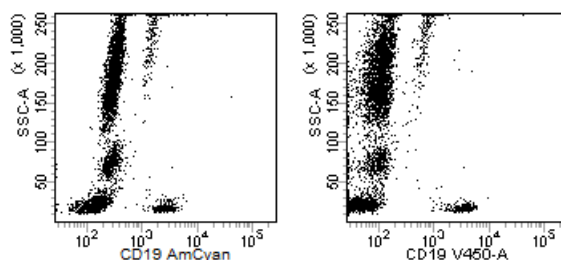
Visit our website ([bdbiosciences.com](http://bdbiosciences.com)) or contact your local BD representative for the lyse/wash protocol for direct immunofluorescence.

## REPRESENTATIVE DATA

Flow cytometric analysis was performed on whole blood stained with the indicated conjugated antibody. Laser excitation was at 405 nm, 488 nm, 635 nm, or 640 nm.

The APC-R700 conjugate is read off the red laser (640 nm) using a 685 longpass mirror with a 712/21 bandpass filter. Representative data analyzed with a BD FACST™ 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<sup>11,12</sup> 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.



### Warning

H317 May cause an allergic skin reaction.

Wear protective gloves/eye protection. Wear protective clothing. Avoid breathing mist/vapours/spray. If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 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.

THE PRODUCTS SOLD HEREUNDER ARE WARRANTED ONLY TO CONFORM TO THE QUANTITY AND CONTENTS STATED ON THE LABEL OR IN THE PRODUCT LABELING AT THE TIME OF DELIVERY TO THE CUSTOMER. BD DISCLAIMS HEREBY ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE AND NONINFRINGEMENT. BD'S SOLE LIABILITY IS LIMITED TO EITHER REPLACEMENT OF THE PRODUCTS OR REFUND OF THE PURCHASE PRICE. BD IS NOT LIABLE FOR PROPERTY DAMAGE OR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING PERSONAL INJURY, OR ECONOMIC LOSS, CAUSED BY THE PRODUCT.

## REFERENCES

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