

# BD Pharmingen™ BrdU Flow Kits

## Cell Cycle Analysis on the BD Accuri™ C6 Flow Cytometer

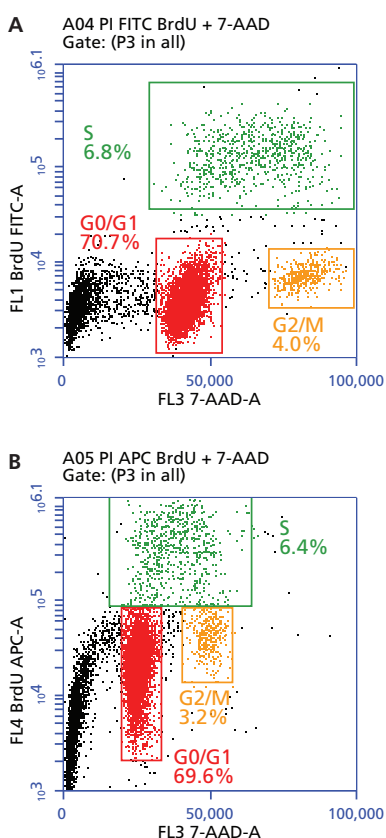
### Features

High-resolution technique for cell cycle measurements

Compatible with cell surface or intracellular staining (cyclins, cytokines, etc.)

Available in FITC and APC formats for added flexibility

Designed for compatibility with the easy-to-use BD Accuri™ C6 flow cytometer



**Figure 1.** Identifying cell cycle phases with the BrdU flow kits.

Human peripheral blood mononuclear cells (PBMCs) were stimulated, expanded, restimulated, and labeled with 20  $\mu$ M of BrdU during the final hour. After harvesting and staining the cells according to the BrdU flow kit protocol, samples were acquired and analyzed on the BD Accuri C6 for both kit formats. Cell cycle phases are clearly distinguished in plots showing (A) 7-AAD vs BrdU FITC and (B) 7-AAD vs BrdU APC.

### Ordering Information

Description	Number of Tests	Cat. No.
FITC BrdU Flow Kit	50 tests	559619
	4 x 50 tests	557891
APC BrdU Flow Kit	50 tests	552598
	4 x 50 tests	557892

Bromodeoxyuridine (BrdU) is an analog of the DNA precursor thymidine. When cells are incubated in the presence of BrdU, the molecule is incorporated into newly synthesized DNA by cells entering and progressing through the S phase of the cell cycle. It can then be detected with antibodies against BrdU.

BD Pharmingen™ BrdU Flow Kits allow researchers to measure cell cycle using immunofluorescent staining and flow cytometry. Cells are labeled with BrdU and stained with fluorescent antibodies conjugated to either FITC or APC. To determine the amount of total DNA, samples can also be stained with the dye 7-amino-actinomycin D (7-AAD). With this combination, two-color flow cytometry can determine the cell cycle phase ( $G_0/G_1$ , S, or  $G_2/M$ ) of cells that are actively synthesizing DNA.

Prolonged exposure of samples to BrdU allows researchers to identify and analyze actively cycling (as opposed to non-cycling) cell subpopulations. Pulse-labeling cells with BrdU at various time points can also provide data on cell cycle kinetics.

The BD Accuri C6 personal flow cytometer brings cell cycle analysis to your benchtop. The system is easy to use, simple to maintain, and affordable. The BD Accuri C6 is equipped with a blue laser, a red laser, two light scatter detectors, and four fluorescence detectors. Compact design, fixed alignment, and pre-optimized detector settings result in a system that is simple to use, and a non-pressurized fluidics system enables kinetic measurements in real time. For walkaway convenience, the optional BD CSampler™ accessory offers automated sampling from 24-tube racks or multiwell plates.

The BrdU flow kits are compatible with the BD Accuri C6 flow cytometer system for cell cycle endpoint or kinetic analysis. Because the kits contain no strong DNA denaturing agents, both FITC and APC formats allow researchers to stain with additional antibodies to either cell surface or intracellular proteins.

### Contents per 50-test kit

Reagent	Quantity
BrdU (10 mg/mL)	5 x 0.5-mL vials
DNase	5 x 300- $\mu$ L vials
Fluorochrome-conjugated anti-BrdU antibody	1 x 65- $\mu$ L vial
BD Cytofix/Cytoperm™ buffer	1 x 25-mL bottle
BD Perm/Wash™ buffer (10X)	2 x 25-mL bottles
BD Cytofix/Cytoperm™ Plus permeabilization buffer	1 x 10-mL bottle
7-AAD	1 x 1-mL vial

Visit [bdbiosciences.com](http://bdbiosciences.com) for more information.



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