

# BD Multitest 6-Color TBNK Reagent

## Features

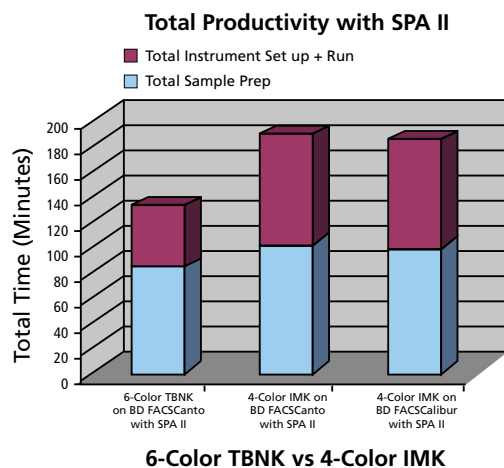
Now available without BD Trucount tubes

Lymphocyte enumeration of mature T, B, and NK cells (IVD)

Works with BD FACSCanto clinical software v2.4 for automated instrument setup, QC, acquisition, and analysis

Fully automated lyse/no-wash sample preparation with the family of BD FACS Sample Prep Assistants (SPA)

Automated sample acquisition with BD FACS Loader



**Figure 1.** When BD Multitest 6-color TBNK reagent with BD Trucount tubes run on the BD FACSCanto\* system was compared to the BD Multitest IMK kit with BD Trucount tubes run on a BD FACSCalibur flow cytometer\*, productivity increased, with an average total time saving of 28%.

A comprehensive, reliable, cost effective, and easy-to-use solution for multicolor flow cytometric immunophenotyping is now available without BD Trucount™ tubes.

BD Multitest™ 6-color TBNK reagent for flow cytometry enumerates mature T, B, and NK lymphocyte populations as well as CD4<sup>+</sup> and CD8<sup>+</sup> T-cell subsets in whole blood. The reagents follow the CDC-recommended CD45 fluorescence and side scatter lymphocyte gating strategy.

## Reliable and easy to use

BD Multitest 6-color TBNK reagent employs a no-wash formula that simplifies sample preparation and reduces tube handling. Processing fewer tubes in less time decreases potential exposure to biohazardous material for laboratory personnel. Each reagent includes a cocktail of multiple fluorescently-labeled monoclonal antibodies, premixed at the appropriate titer to ensure quality staining.

Sample preparation is easy. Simply:

1. Add whole blood to a 12 x 75-mm BD Falcon™ polystyrene tube or equivalent.
2. Add BD Multitest 6-color TBNK reagent, vortex, and incubate.
3. Add BD FACSTM Lysing Solution and incubate.
4. Acquire and analyze with BD FACSCanto™ clinical software.

## A comprehensive solution

The BD Multitest 6-color TBNK reagent is one portion of BD Biosciences comprehensive solution for immunophenotyping that includes automated sample preparation, reagents, BD Trucount tubes, flow cytometry instruments, automated sample acquisition, and a suite of powerful software packages, all backed by a world-class service and support organization with extensive flow cytometry experience.

## Increase productivity

Multicolor analysis provides more answers from a single tube, and decreases costs by reducing the number of tubes and reagents required.

Productivity can be further enhanced with BD Multitest 6-color TBNK reagent when used with BD Trucount tubes, the BD FACSCanto family of flow cytometers\*, BD FACSTM Sample Prep Assistants (SPA), and the BD FACSTM Loader. When BD Multitest 6-color TBNK reagent with BD Trucount tubes run on the BD FACSCanto system was compared to the BD Multitest™ IMK Kit with BD Trucount tubes run on a BD FACSCalibur™ flow cytometer, productivity increased, with an average total time saving of 28% as illustrated at the left.

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

## BD Multitest 6-Color TBNK Reagent

### Equivalent Performance to BD Multitest 6-color TBNK with BD Trucount Tubes

#### Accuracy with vs without BD Trucount tubes

BD FACSCanto Clinical Software v2.4 vs v2.2 on a BD FACSCanto II flow cytometer\*

Lymphocyte subset percentages were determined using BD Multitest 6-color TBNK reagent without BD Trucount tubes and analyzed on the BD FACSCanto II flow cytometer using BD FACSCanto clinical software v2.4. The results were compared with results from the same reagent with BD Trucount tubes and analyzed on the BD FACSCanto II flow cytometer using BD FACSCanto clinical software v2.2.

Whole blood samples were tested internally at BD Biosciences. Regression statistics are reported in Table 1.

**Table 1. Regression analysis for subset percentages**

(BD FACSCanto clinical software 2.4 vs v2.2 with BD FACSCanto II flow cytometer)

Lymphocyte Subset	n	Unit	r2	Slope	Intercept	Range
CD3 <sup>+</sup> CD4 <sup>+</sup>	52	%	0.994	0.996	-0.001	1–61
CD3 <sup>+</sup> CD8 <sup>+</sup>	52	%	0.993	1.006	0.310	11–68
Total CD3 <sup>+</sup>	52	%	0.982	1.012	-0.919	36–87
CD3 <sup>+</sup> CD19 <sup>+</sup>	52	%	0.985	0.985	0.039	0–35
CD3 <sup>+</sup> (CD16+CD56) <sup>+</sup>	52	%	0.986	1.034	-0.485	5–40

### Precision without BD Trucount tubes

BD FACSCanto II flow cytometer

Estimates of precision were determined at one site, BD Biosciences, using two commercially available process controls (CD-Chex Plus and CD-Chex Plus CD4 Low) run in duplicate at two different levels of analyte concentration. Samples were run on three different instruments with three different operators (one operator and one instrument per day). Two separate runs were analyzed during each of the 21 days of testing for a total of 42 runs. Calibration with BD FACSTM 7-color setup beads was performed before each run for a total of 42 runs. One reagent lot, one calibrator lot, and one lot each of the process controls were used for the duration of the study. Standard deviations (SDs) are provided for subset percentages for repeatability and within-device precision in Table 2.

**Table 2. Repeatability and within-device precision of subset percentages.**  
(BD FACSCanto II flow cytometer)

Lymphocyte Subset (%)	CDL <sup>a</sup> SD		CDC <sup>b</sup> SD	
	Within Run	Within Device	Within Run	Within Device
CD3 <sup>+</sup> CD4 <sup>+</sup>	0.47	0.47	0.76	0.80
CD3 <sup>+</sup> CD8 <sup>+</sup>	1.10	1.18	0.75	0.76
Total CD3 <sup>+</sup>	1.32	1.32	0.82	0.87
CD3 <sup>+</sup> CD19 <sup>+</sup>	1.07	1.09	0.57	0.60
CD3 <sup>+</sup> (CD16+CD56) <sup>+</sup>	0.78	0.80	0.57	0.58

a. CDL = CD-Chex® Plus CD4 Low control

b. CDC = CD-Chex Plus control

### BD Multitest 6-Color TBNK Reagent Fluorochromes

Six-color reagent: FITC/PE/PerCP-Cy™5.5/PE-Cy™7/APC/APC-Cy7

#### Ordering Information

Description	Reg	Size	Cat.No.
BD Multitest 6-Color TBNK CD3/CD16+CD56/CD45/CD4/CD19/CD8 reagent	IVD	50 tests	644611

Note: To run the new reagent on the BD FACSCanto system, BD FACSCanto clinical software v2.4 is required. Also, a SPA II file update is required to run the new reagent on the BD FACS Sample Prep Assistant II. The SPA II file update will be included in the BD FACSCanto clinical software upgrade bundle.

#### Related Products

Description	Cat.No.
SW Upgrade v2.4 for BD FACSCanto instrument	646602
SW Upgrade v2.4 for BD FACSCanto II instrument	646603



\*Class I (1) laser product.

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