

# BD Leucocount

## Residual White Blood Cell Enumeration Kit

The BD Leucocount assay enumerates residual white blood cells in leucoreduced blood products, using a single reagent and high-performance flow cytometry for increased laboratory productivity.

### Features

- Optimized for both red blood cells and platelet products
- Incorporates the robust absolute counting technology of BD Trucount tubes to eliminate the need for manual cell counts
- Consistent performance at clinically relevant levels of detection gives you the highest level of confidence in your process control

The BD Leucocount™ assay is a flow cytometric method for counting residual white blood cells (rWBCs) in platelet and red blood cell packs for transfusion. Leucoreduction of blood products, either by filtration or apheresis, requires a process control to monitor the amount of rWBCs (leucocytes) remaining in the pack. The BD Leucocount assay offers an efficient alternative to tedious and operator-dependent manual methods of enumeration.

### Reduces the risk of errors

BD Leucocount eliminates the need for a separate counting standard by combining the robust absolute counting technology of BD Trucount™ tubes with a reagent optimized to stain rWBCs in leucoreduced blood products. The BD Leucocount assay protocol uses a single reagent for both platelet and red blood cell samples, which reduces the risk of sample preparation errors and makes efficient use of reagent.

### Provides precision, linearity, and accuracy

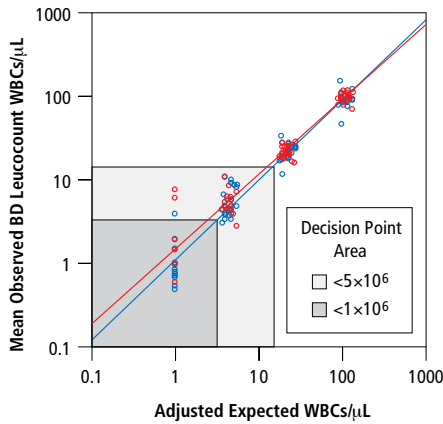
The BD Leucocount assay provides excellent precision, linearity, and accuracy at clinically relevant levels of detection, giving the highest level of confidence in the process control.

### Saves time at the bench

Achieve high throughput with the BD Leucocount assay. It's no longer necessary to spend hours at the microscope performing manual cell counts.

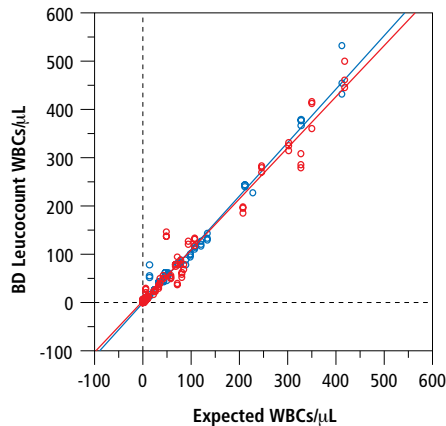


# BD Leucocount Reagent Kit



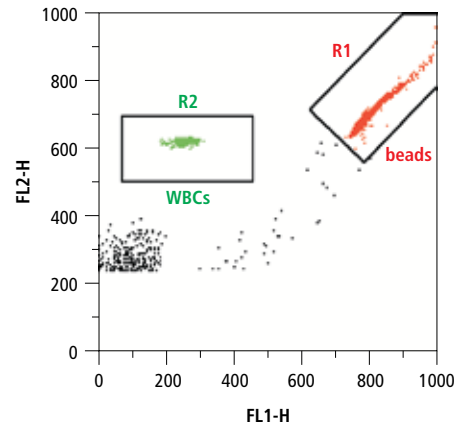
Mean Observed BD Leucocount WBCs/ $\mu$ L =  $2.607 + 0.871 \times$  Expected WBCs/ $\mu$ L;  $R^2 = 0.955$   
 Mean Observed BD Leucocount WBCs/ $\mu$ L =  $2.420 + 0.829 \times$  Expected WBCs/ $\mu$ L;  $R^2 = 0.931$

Linearity of the BD Leucocount kit in the analysis of RBC (red) and platelet (blue) samples.



BD Leucocount WBCs/ $\mu$ L =  $1.348 + 1.059 \times$  Expected WBCs/ $\mu$ L;  $R^2 = 0.970$   
 BD Leucocount WBCs/ $\mu$ L =  $0.390 + 1.110 \times$  Expected WBCs/ $\mu$ L;  $R^2 = 0.986$

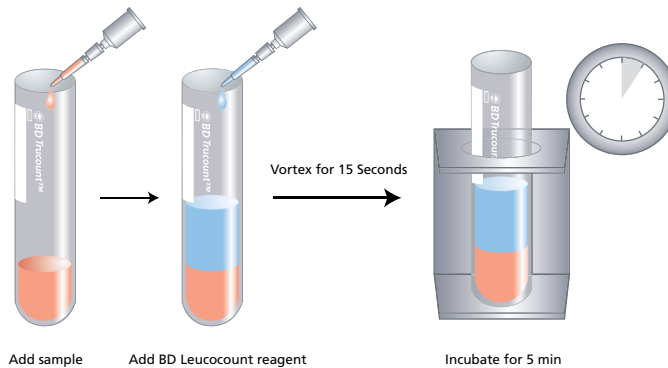
Regression of mean observed BD Leucocount rWBCs/ $\mu$ L versus expected WBCs/ $\mu$ L for RBC (red) and platelet packs (blue). Expected counts of 0 adjusted to 1 WBC/ $\mu$ L for presentation on logarithmic scale.



FL1 vs FL2 dot plot with data from a leucoreduced RBC unit. Region 1 (R1) contains the BD Trucount bead population. Region 2 (R2) contains the residual white blood cell (rWBC) population.

## The BD Leucocount assay saves you time and labor with its fast, simple procedure.

- Add 100  $\mu$ L of sample to a BD Trucount tube.
- Add 400  $\mu$ L of BD Leucocount reagent.
- Vortex for 15 seconds.
- Incubate the sample for 5 minutes, and then acquire and analyze with BD CellQuest™ software.



## The BD Leucocount assay is robust and stable because the reagent is optimized for both red cell and platelet products.

The reagent contains:

- Nucleic acid dye—Propidium iodide (PI) for staining all nucleated cells. The DNA/RNA-specific dye is excited at 488 nm and emits in the FL2 and FL3 channels. The brightly stained leucocytes detected in FL2 are easily distinguishable from any non-nucleated particles, such as erythrocytes and platelets.
- RNase—for enzymatic digestion of any RNA present in the sample that could otherwise be stained by PI and provide falsely elevated counts.
- Detergent—for permeabilizing the cell membrane, to permit entry of PI.
- Buffers—for providing a stable solution for stained samples, and for optimizing fluorescence and scatter properties.

| Description               | Size     | Cat. No. |
|---------------------------|----------|----------|
| BD Leucocount Reagent Kit | 50 Tests | 340523   |



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