

January, 2016

## Lymphocyte Enumeration SOP 5: Acquisition of Stained Whole Blood Samples on the BD FACSCanto™ Cytometer

### Purpose

To acquire data on the BD FACSCanto™ or BD FACSCanto™ II flow cytometer using stained whole blood samples.

### Scope

This procedure applies to the clinical laboratory environment with the BD FACSCanto or BD FACSCanto II flow cytometer for the purpose of lymphocyte enumeration using whole blood specimens. We recommend that all personnel who operate the instrument be sufficiently trained to fully perform and implement this guideline.

### Equipment Required

BD FACSCanto or BD FACSCanto II flow cytometer and workstation  
Vortex

### Materials Required

Biohazard safety manual  
Biohazard sharps waste container  
Personal protective equipment (PPE)

- Protective gloves
- Protective eyewear
- Closed-toe shoes
- Lab coat

Prepared immunofluorescent labeled samples for acquisition

### Procedure

Before beginning this procedure, start the flow cytometer according to *Lymphocyte Enumeration SOP 1: BD FACSCanto™ Cytometer Startup Procedure*.

#### Creating a new worklist

1. Enter *Control* into the **Sample Name** field.
2. Enter the lot ID for the control sample and today's date in the **Sample ID** field.
3. Enter the name of the control (*Multicheck* or *CD4 Low*) in the **Case Number** field.
4. In the **Panel** column, select the appropriate panel from the list.
5. In the **Carousel** column, select the appropriate carousel number.
6. Repeat steps 1 through 5 for any remaining control tubes.



January, 2016

## Lymphocyte Enumeration SOP 5: Acquisition of Stained Whole Blood Samples on the BD FACSCanto™ Cytometer

7. Enter the patient information as required for your facility.
  - **Sample ID** is a required field which can be manually entered or read from a barcode reader.
  - The **Sample Name** and **Case Number** fields are optional.
8. In the **Panel** column, select the appropriate panel from the list for the patient sample.
9. Continue entering the remaining samples into the worklist.

### Importing a worklist from BD FACS™ SPA software

1. From the **File** menu, go to **Import SPA Worklist**.
2. Navigate to the folder containing the previously saved SPA worklist.
3. Select the worklist and click **OK**.
4. Verify that the worklist contains all expected information.

### Acquiring data

1. Vortex each tube for two seconds before loading the carousel on the BD FACSCanto or BD FACSCanto II cytometer.
2. Install the appropriate carousel onto the cytometer.
3. Close the loader doors or install the loader cover.
4. Click **Run** in BD FACSCanto™ clinical software.
5. In the dialog that opens, enter today's date and your initials or run number. Select a location to save the worklist, and click **Save**.

The samples will be acquired according to the specifications in the software.
6. Once the worklist is complete, a dialog opens. Click **OK** and continue to data analysis.

### References

*BD FACSCanto™ II Instructions for Use*, document 23-12882-01.

*BD FACSCanto™ Clinical Software Reference Manual*, document 23-14529-00.

BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2016 BD

