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HLA-B27 SOP 5: Analysis of Data Acquired on the BD FACSCanto™ II Cytometer

Purpose

To analyze and review the data acquired on the BD FACSCanto[™] II flow cytometer.

Scope

This procedure applies to the clinical laboratory environment with the BD FACSCanto II flow cytometer for the purpose of detecting the HLA-B27 antigen 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 II workstation

Materials Required

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

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

Completed worklist or data files

Procedure

- 1. If BD FACSCanto[™] clinical software is closed, start the software and log in with the appropriate user name and password.
- 2. Wait for the cytometer to connect to the software.
- 3. To analyze data within a worklist (note: if samples have just finished running, this step might be unnecessary):
 - a. Select File > Open Worklist.
 - b. Navigate to the worklist containing data to be analyzed and click **Open**.
- 4. To analyze data from multiple days:
 - a. Select File > New Analysis Worklist.
 - b. Click Add Data Files from Directory.
 - c. Navigate to the folder containing the data files.



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- d. Click Open.
- 5. To analyze individual data files:
 - a. Select File > New Analysis Worklist.
 - b. Click Add Data File.
 - c. Navigate to the folder containing the data files and select the files to be analyzed.
 - d. Click Open.
- 6. Double-click in the Status column for the first sample to open the laboratory report.

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- 7. Inspect the plots for expected patterns. If the T-cell gate is not around the T-lymphocyte (CD3⁺) population, click the border of the gate and drag it to the T lymphocytes as shown above.
- 8. Look at the QC messages at the end of the report to ensure validity.



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9. Click the Review button, select Current User or Other User, and enter your password.



10. Click the right arrow to continue to the next sample.



- 11. Repeat steps 7 through 10 for each additional sample.
- 12. Once all samples have been analyzed, select File > Save to save changes to the worklist.
- 13. If using an analysis worklist, select File > Save As and enter a name for the analysis worklist.
- 14. Click Save.
- 15. Select File > Print all Lab Reports, if needed.

References

- BD FACSCanto[™] II Instructions for Use, document 23-12882-01.
- BD FACSCanto™ Clinical Software Reference Manual, document 23-14529-00.
- BD HLA-B27 Application Guide for BD FACSCanto Flow Cytometers, document 343366 Rev. A.
- BD[™] HLA-B27 Kit technical data sheet, document 23-2563-13, available at www.bdbiosciences.com.

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