DATA SHEET

T CELL (NL) AUTOCLASSIFICATION

ASSAY COMPATIBILITY

CATALOG NUMBER: AI000-I NL

ASSAY NAME: T Cell RTF Assay (NL)

ASSAY DESCRIPTION: Full T Cell panel with non-lyse buffer for peripheral blood mononuclear cell (PBMCs) samples.

PANEL DESCRIPTION

MARKER	FLUOROPHORE	CLONE
CD45	AF488	HI30
CD3	PE/Cy7	UCHTOI
CD4	PE	RPAT4
CD8	PE/Dazzle 594	RPAT8
Viability	DiYO-3	N/A
Count beads	N/A	N/A

The Accellix Platform automates your entire GMP cell phenotyping process from sample preparation to data acquisition and analysis, in order to generate rapid results directly in the manufacturing suite. Central to our enabling technology are standard and custom assays. These assays allow for sample preparation in a stable, single-use microfluidic cartridge using unitized and dried reagents that are stable at ambient temperatures. The dried reagent also has control beads, enabling cell counting and in-run QC for every assay. Each assay incorporates an Accellix cartridge with a unique QR code, simplifying the workflow and reducing the chances for human error. The autoclassification software (algorithm-based analysis) automatically analyzes the compensated flow cytometry data using multi-parametric analysis and provides real-time results on the Accellix instrument screen at the conclusion of each run.

DESCRIPTION AND INTENDED USE

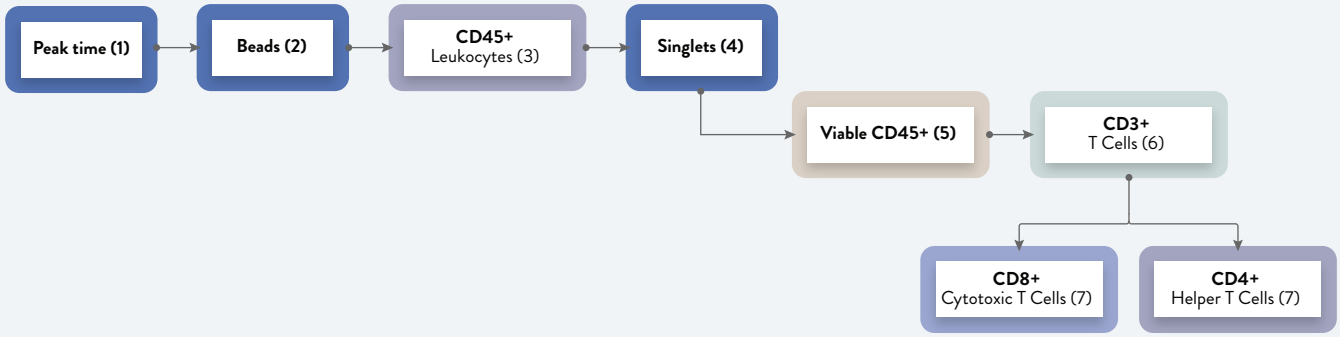
The Accellix T Cell (NL) autoclassification data analysis software complements the T Cell RTF Assay (NL) to automatically classify and enumerate T Cell subsets using multi-parametric analysis, dynamically setting gates for each cell subset in each run. The assay and software are intended for both fresh and frozen peripheral blood mononuclear cell (PBMC) samples. The Accellix instrument tabulates the autoclassification results on-screen immediately after completion of the assay run and reports the results in a digital PDF file along with traceability information such as operator, Accellix assay lot, and software version. In addition, graphical results are generated for rapid and clear visual review of the data as well as providing an indication of how the software performed. To allow flexibility for oversight by subject matter experts, Flow Cytometry Standard (FCS) files are generated and exported along with the automated results.

KEY BENEFITS

+ **Autoclassification improves reproducibility by removing subjectivity from manual gate placement.**
+ **Automating analysis greatly shortens time to results in comparison to manual gating by applying objective logic for gate placement and classification of cells over manual analysis, reducing potential errors in data interpretation.**
+ **Automated results are generated immediately after each run, enabling users to quickly make informed decisions.**
+ **Assay reportables are configurable and include warning flags for flow disturbances and low event counts.**

Accellix

AUTOMATED ANALYSIS: PERIPHERAL BLOOD MONONUCLEAR CELLS



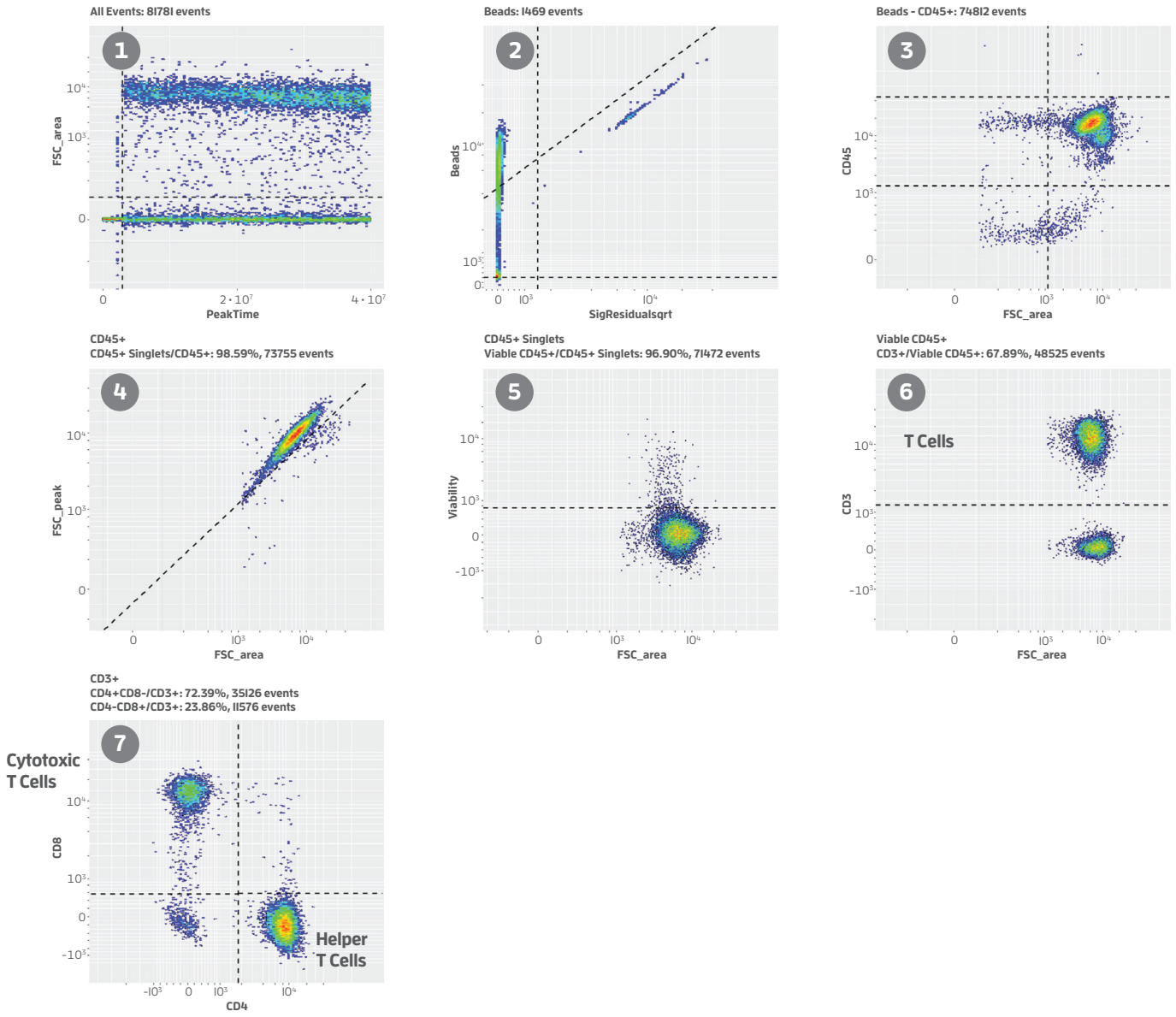


Figure 1 - Gating hierarchy and plots of representative T Cell RTF Assay (NL) (Cat. No. A1000-1 NL) run with peripheral blood mononuclear cells (PBMCs) sample on the Accellix Platform. Assay-specific autoclassification software classified and enumerated cell subsets. From left to right, top to bottom: time gate (plot 1) to exclude flow disturbances, identification and exclusion of assay beads used for ratiometric cell counting (plot 2), CD45+ leukocytes (plot 3), singlets (plot 4), viable cells (plot 5), identification of CD3+ T Cells (plot 6), CD3+ cells are further gated to identify CD4+ helper T Cells and CD8+ cytotoxic T Cells (plot 7).