

# Simply Cellular<sup>®</sup> Compensation Standards

## Antibody Binding Standards



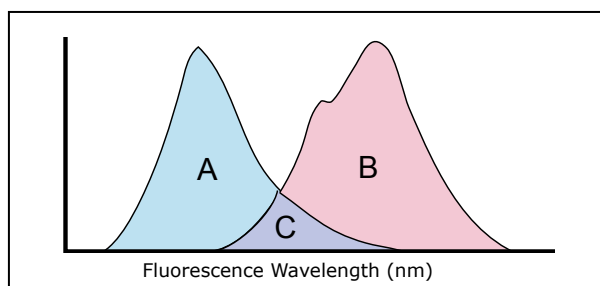
BEADS • ABOVE THE REST



### Reduce spectral overlap and enjoy properly compensated sample results with Simply Cellular Compensation Standards.

#### What is Spectral Overlap?

Flow cytometers are designed to have a primary detector for each fluorochrome label (e.g. FL1-FITC, FL2-PE, FL3-PE-Cy<sup>™</sup>5). Fluorescent signals emitted by fluorochromes can bleed or overlap into the secondary fluorescence detectors. In order to remove this overlap, the proper amount of signal must be subtracted from the secondary detector as a percentage of fluorescence intensity measured in the primary detector. This subtraction is performed by the electrical circuits prior to collecting sample data or by software when analyzing the list mode files. When the mean fluorescence of two populations of labeled standards are adjusted such that they have equal intensities in the secondary fluorescence detectors, then the data from the samples will be accurately compensated.



**Figure 1:** Fluorescence carryover (C) is the region of overlap of the two emission spectra (A,B).

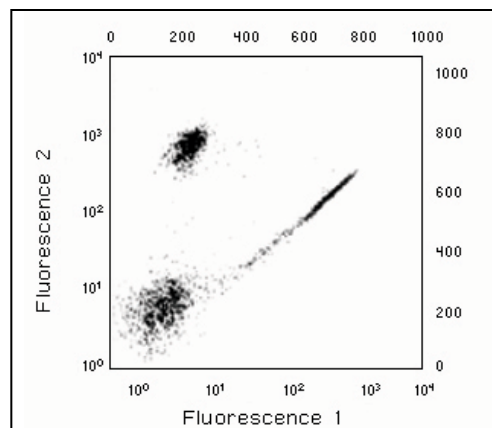
#### How Do They Work?

Simply Cellular Compensation Standards are for use in conjunction with hardware or software to remove spectral overlap from fluorochromes into secondary fluorescence detectors of a flow cytometer. Each Simply Cellular Compensation Standard is a mixture

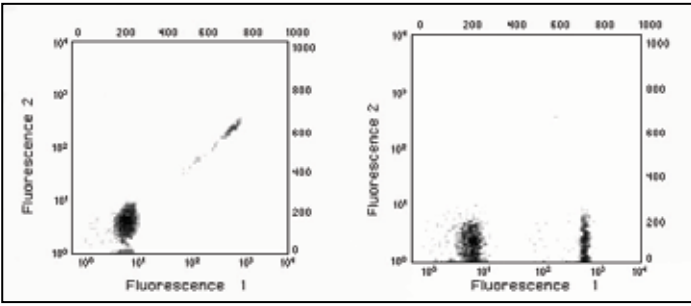
of two populations of microspheres that have the ability to bind mouse monoclonal antibodies at high and low capacities, respectively. The microspheres are supplied in a sterile-filtered, pH buffered PBS solution containing surfactant and preservatives. As the operator labels these standards with the same antibody used to label the cell samples, the standards will exhibit spectral properties that closely match the cells being analyzed. These matching properties permit accurate adjustment of color compensation across the intensity range of the analysis.

#### What Can I Expect?

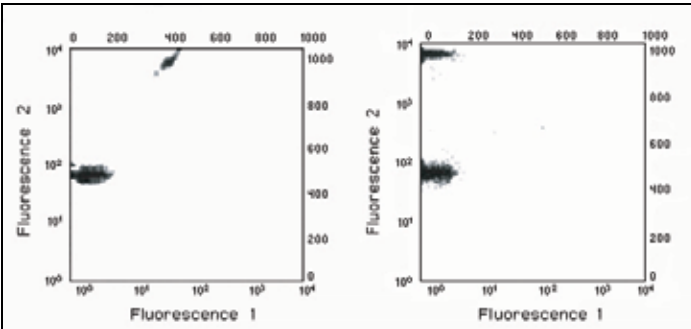
The following data (Figures 2-5) are examples of how the fluorescence signals of the cells will be compensated when the instrument is adjusted using labeled Simply Cellular anti-Mouse Compensation Standards.



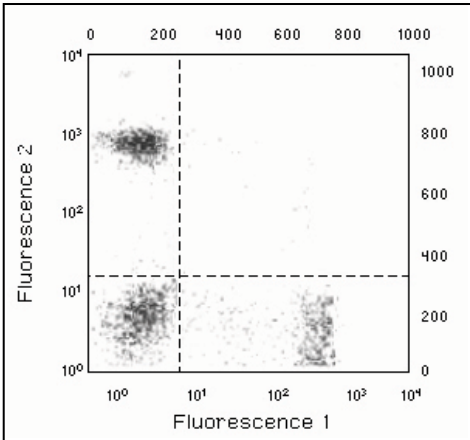
**Figure 2:** Uncompensated lymphocytes labeled with CD4-PE and CD8-FITC.



**Figure 3:** Uncompensated (left) and compensated (right) Simply Cellular® anti-Mouse Compensation Standards labeled with CD8-FITC.



**Figure 4:** Uncompensated (left) and compensated (right) Simply Cellular® anti-Mouse Compensation Standards labeled with CD4-PE.



**Figure 5:** Validation of FITC and PE compensated lymphocytes.

## SIMPLY CELLULAR® COMPENSATION STANDARDS

### Cat. # Product Description

550	Simply Cellular® Compensation Standard (anti-Mouse)
551	Simply Cellular® Compensation Standard (anti-Rat)
552	Simply Cellular® Compensation Standard (anti-Human)

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