

Compensation Standards

Fluorescence Carryover Correction



BEADS • ABOVE THE REST



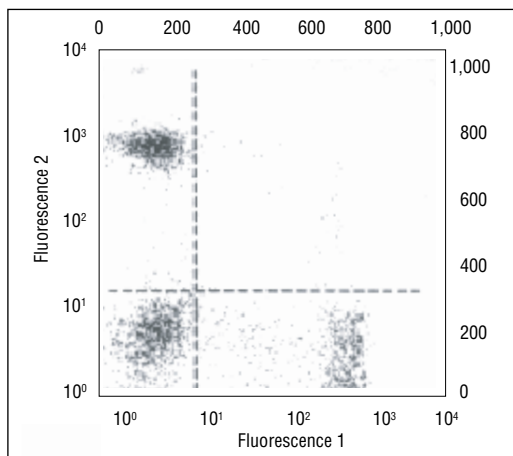
Daily compensation with Bangs' Compensation Standards eliminates carryover to ensure accurate results.

COLOR COMPENSATION

What is compensation?

In multicolor analyses, fluorescence compensation corrects for spectral overlap of fluorochrome emissions (carryover) which cannot be separated by optical fibers or dichroic mirrors alone. Compensation is performed by electronically subtracting the proportion of fluorescence signal equal to the carryover that should not be detected by a particular PMT.

For example, the emission spectrum of FITC is quite broad and continues past 600nm, while PE has an emission peak around 580nm, with a significant contribution below 560nm. In the absence of proper compensation, the signals from each fluorochrome overlap and are detected in unintended channels.



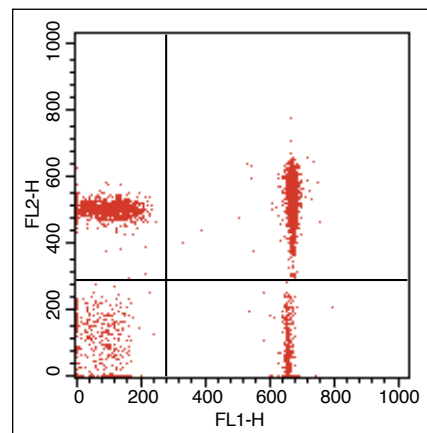
Cells demonstrating proper fluorescence compensation

Proper fluorescence compensation requires a reference material labeled with the same fluorochromes as the stained cell sample. Such standards are used to determine the correct percentage of fluorescence signal to be subtracted from the other channels. To that end, Bangs offers a number of standards for color compensation.

FITC/PE COMPENSATION STANDARD

Pre-labeled Compensation Kit

Bangs' FITC/PE Compensation Standard provides an easy, cost effective means of setting compensation. The kit is composed of four microsphere populations: one labeled with FITC, one with PE, one with both FITC and PE, and a population of AutoFluor™ microspheres. The AutoFluor microspheres exhibit autofluorescence similar to that of unstained lymphocytes, and act as a "blank" for compensation purposes. See Product Data Sheet 820 for further details.



FITC/PE-labeled compensation standard

SIMPLY CELLULAR® COMPENSATION STANDARDS

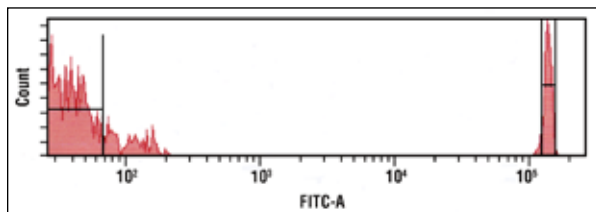
Anti-Mouse IgG, anti-Rat IgG, and anti-Human IgG Compensation Kits

The Simply Cellular Compensation Standard is a mixture of two Simply Cellular microsphere populations capable of binding high and low levels of the monoclonal IgG antibody used in your assay. Simply stain the Simply Cellular Compensation Standard just as you would stain your cells. The resulting microspheres will appear “positive” in two different fluorescence intensities. The Simply Cellular Compensation Standard is ideal for setting the compensation for less common fluorochromes or expanded panels. See Product Data Sheets 850–852 for more details.

VIABILITY DYE COMPENSATION STANDARD

Reactive Dye Compensation Kit

Viability Dye Compensation Standards are suitable for labeling with LIVE/DEAD® stains or similarly-reactive dyes to generate compensation standards for flow cytometric analyses. For further information, see Product Data Sheet 853.



Unlabeled and FITC-labeled Viability Dye Compensation Standards

Note: Beads are not suitable for labeling with DNA stains such as propidium iodide, DAPI, or SYTOX®, and users should contact Bangs Laboratories for discussion if uncertain as to the compatibility of a specific dye or stain.

FLOW CYTOMETRY PROTEIN A AND PROTEIN G ANTIBODY BINDING BEADS

Antibody Binding Compensation Kit

Our single population Protein A and Protein G microspheres are suitable for binding a range of antibodies, and may be used as reference beads for flow cytometry. Protein G is a strong binder of goat and rabbit antibodies, and Protein A binds hamster antibodies. An unlabeled population or even our Certified Blank™ may be used with the labeled population for compensation purposes. See Product Data Sheet 854 for additional information.

COMPENSATION STANDARDS

Cat. # Product Description

820	FITC/PE Compensation Standard
550	Simply Cellular® Compensation Standard (anti-Mouse IgG)
551	Simply Cellular® Compensation Standard (anti-Rat IgG)
552	Simply Cellular® Compensation Standard (anti-Human IgG)
450	Viability Dye Compensation Standard, 4µm
451	Viability Dye Compensation Standard, 8µm
553	Flow Cytometry Protein A Antibody Binding Beads
554	Flow Cytometry Protein G Antibody Binding Beads
890	Certified Blank™ Fluorescence Reference Standard

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Bangs Laboratories supplies a large variety of uniform polymeric, silica, and magnetic microsphere products setting the standards for diagnostic, research, and flow cytometry applications. No matter the project, we have a product that serves or we'll work to custom-design a solution to fit. And that's not the half of it.

We also stand behind our products. Regardless of the size of your question or the size of your company, we offer tech support, absolutely free.

Sound interesting? Give us a call.



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