

# **Antibody Binding Standards**

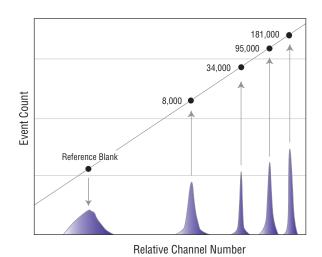
# Our Quantum™ Simply Cellular® kits offer a straightforward approach to Antibody Binding Capacity determinations.

#### What is ABC?

ABC stands for Antibody Binding Capacity. The ABC is the number of monoclonal antibodies a sample will bind, and correlates to the number of antigens expressed on the cell surface. Each microsphere population in the Quantum™ Simply Cellular® kit is assigned a different ABC value, reflecting its ability to bind a known amount of antibody. For example, a Quantum™ Simply Cellular® microsphere with an ABC value of 28,000 has the ability to bind 28,000 monoclonal antibodies.

#### **How Do They Work?**

Each Quantum™ Simply Cellular® kit contains a series of four microsphere populations labeled with varying amounts of anti-Mouse IgG, anti-Human IgG, or anti-Rat IgG. The IgG conjugated to the beads' surface is specific for the Fc portion of the IgG antibodies. In addition to the antibody-labeled standards, each



10µm streptavidin-coated BLI microspheres with biotinylated oligonucleotides attached.

kit includes a blank population. These unlabeled microspheres are used to measure the minimum detection threshold, or background noise level, of the instrument. The Quantum™ Simply Cellular® microspheres are stained just like your cell samples, and with the same antibody. Each of the different populations of microspheres will bind a known amount of your monoclonal antibody. By plotting each population's fluorescence intensity versus its assigned ABC value, a standard ABC curve is generated and the ABC value of stained cell samples may be easily determined.

## **Spectral Matching**

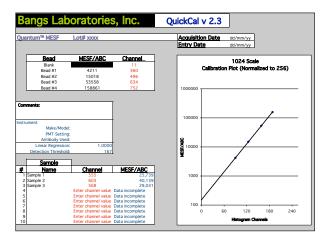
The same antibody is used to stain both the Quantum™ Simply Cellular® microspheres and your cell samples. The result is a standard that exhibits the same excitation and emission properties as your stained samples, under a variety of different conditions. We call this being "environmentally responsive." Okay, so how does this relate to your experimental results? The environmentally responsive nature of the microsphere compensates for minor changes in your system, such as slight variations in pH, and produces consistent results each time.



#### QUICKCAL® V. 2.3 DATA ANALYSIS PROGRAM

QuickCal® v. 2.3 utilizes pre-programmed spreadsheet templates to generate standard curves from your Quantum™ MESF kits or Quantum™ Simply Cellular® kits and to calculate sample MESF or ABC values.

Access the FREE QuickCal® v. 2.3 quantitative analysis program by logging into our website at www.bangslabs.com/quickcal and entering the Access Number provided with your standards.



QuickCal® performs regression analysis to analyze instrument performance and make MESF assignments to stained samples.

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Bangs Laboratories manufactures magnetic, polymeric and silica 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.

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