

Quantum™ MESF

Fluorescence Intensity Calibration



BEADS • ABOVE THE REST



Quantum™ MESF kits combine linearity validations with quantitative fluorescence determinations.

What is MESF?

MESF stands for Molecules of Equivalent Soluble Fluorochrome. Each microsphere population in a Quantum MESF kit is assigned an MESF value. The MESF unit corresponds to the fluorescence intensity of a given number of pure fluorochrome molecules in solution. For example, a Quantum FITC microsphere with an MESF value of 10,000 has the same fluorescence intensity as a solution containing 10,000 FITC molecules.

Linearity Calibrations

Each Quantum MESF kit contains either a series of four fluorescent microsphere populations labeled with varying amounts of Alexa Fluor® 488, APC, Cy™5, PE-Cy5, R-PE, or a series of five fluorescent microsphere populations labeled with varying amounts of FITC. In addition to the fluorescent standards, each kit includes a blank population. These unlabeled microspheres are used to measure the minimum detection threshold, or background noise level, of the instrument. Validating your instrument's linearity in a given fluorescent channel is as easy as comparing each population's channel value with its assigned MESF value and generating a regression line.

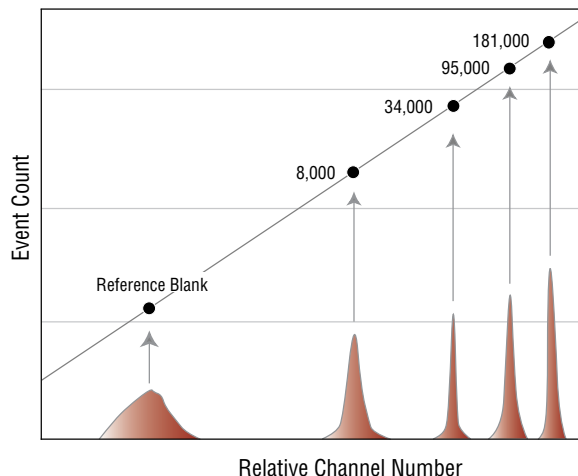
Spectral Matching

Quantum MESF microspheres are surface-labeled with the same fluorochrome you'll use to label cells. Because the fluorochromes are on the surface of the bead, they are free to interact with their environment just as the fluorochromes on a stained cell. The result is a standard that exhibits the same excitation and emission properties as

your stained samples, under a variety of different conditions. Okay, so how does this relate to your Quality Control? Unlike internally-dyed standards, the Quantum MESF beads can alert you to adverse conditions in your system, such as contaminants or changes in pH.

Quantitative Determinations

In addition to validating the linearity of a given fluorescent channel, Quantum MESF kits serve as quantitative tools. By plotting each population's fluorescence intensity versus its assigned MESF value, a standard MESF curve is generated and the MESF value of stained cell samples may be easily determined.



10µm streptavidin-coated BLI microspheres with biotinylated oligonucleotides attached

QUANTUM™ MESF

Cat. # Product Description

488	Quantum™ Alexa Fluor® 488 MESF Kit
823	Quantum™ APC MESF Kit
822	Quantum™ Cy™5 MESF Kit
555	Quantum™ FITC-5 MESF Kit
555p	Quantum™ FITC-5 MESF Kit (Premix)
828	Quantum™ PE-Cy™5 MESF Kit
827	Quantum™ R-PE MESF Kit

Alexa Fluor® is a registered trademark of Life Technologies Corporation.

Cy™, including Cy5, is a trademark of GE Healthcare Limited. This product is manufactured under license from Carnegie Mellon University under U.S. Patent Number 5,268,486 and related patents.

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QUICKCAL®

Free Flow Cytometry Data Analysis

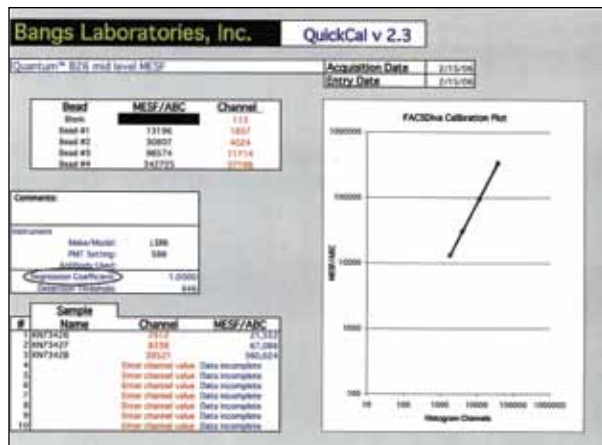
QuickCal® v. 2.3

QUICKCAL® v. 2.3 DATA ANALYSIS PROGRAM

What is QuickCal?

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/products/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.



Bangs Laboratories, Inc.

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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