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## TECHNICAL DATA SHEET 508

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# FLOW CHECK™ *Microspheres*

Flow Check beads have been designed to assist flow cytometry users in checking the suitability of their instruments and their procedures. The particles are made from a polystyrene base and supplied as an aqueous suspension. All components are packaged in convenient 10 ml flip top dropper bottles. To reach a count rate of 1000 per second, a dilution is required. The actual concentration of particles per bottle is found on the label. With 10,000 total events per run, a single bottle of Flow Check particles can be used at least 200 times. Each shipment of the Flow Check particles will have the data from a flow cytometry run presented on a C/A. When protected from light and stored at 4°C the particles will be stable for one year.

Dyed Particle	Excitation Max. (nm)	Emission Max. (nm)
BB	365	435
YG	445	500

### Flow Check YG 6.0µ Kit Catalog #23512

The particles in this kit allow comparison of various levels of green fluorescence on uniform polystyrene beads. A full intensity bead, two intermediate intensity beads and a blank bead are provided to assist in checking instrument stability in the appropriate ranges. Each component is packaged with  $2 \times 10^6$  particles per ml. The CV's of these particles are narrow throughout the range but are best with the higher intensity particles. These particles are the largest beads we manufacture that will yield reasonable size control. Larger size particles are available, but the CV of the diameter and fluorescent signal are increased.

### Flow Check YG 2.0µ Kit Catalog #23513

The particles in this kit allow comparison of various levels of green fluorescence on uniform polystyrene beads. A full intensity bead, two intermediate intensity beads and a blank bead are provided to assist in checking instrument stability in the appropriate ranges. Each component is packaged with  $1 \times 10^7$  particles per ml. The CV's of these particles are narrow throughout the range but are best with the higher intensity particles. These beads offer the best size and fluorescent CV control of all of our microspheres.

### Flow Check BB/YG Compensation Kit Catalog #23515

This kit contains two types of 0.5µ particles designed for checking the suitability of systems using both UV excitable dyes with blue emission and dyes with a green emission. The small size has been chosen to coincide with the use of Hoechst dyes for the detection of bacteria. While the green beads (which mimic FITC fluorescent signals) are similarly sized they can be separated when using blue or green detection parameters. The components are packaged as a suspension of  $1 \times 10^9$  particles per ml.

### Flow Check YG Size Range Calibration Kit Catalog #23514

Design: This kit contains four high intensity microparticles which have been tested under flow cytometry conditions for uniformity of size and fluorescent signal. The beads are separated based on their size. The kit contains 0.5µ, 1.0µ, 2.0µ and 6.0µ YG particles. The YG dye is intended to mimic the spectral properties of FITC without the leaching common to those products. Each 10ml bottle contains various amounts of particles per ml.

### Components of Catalog #23514

Nominal Size	Bottle Concentration (particles/ml)
0.5µ	$1 \times 10^9$
1.0µ	$1 \times 10^8$
2.0µ	$1 \times 10^7$
6.0µ	$2 \times 10^6$

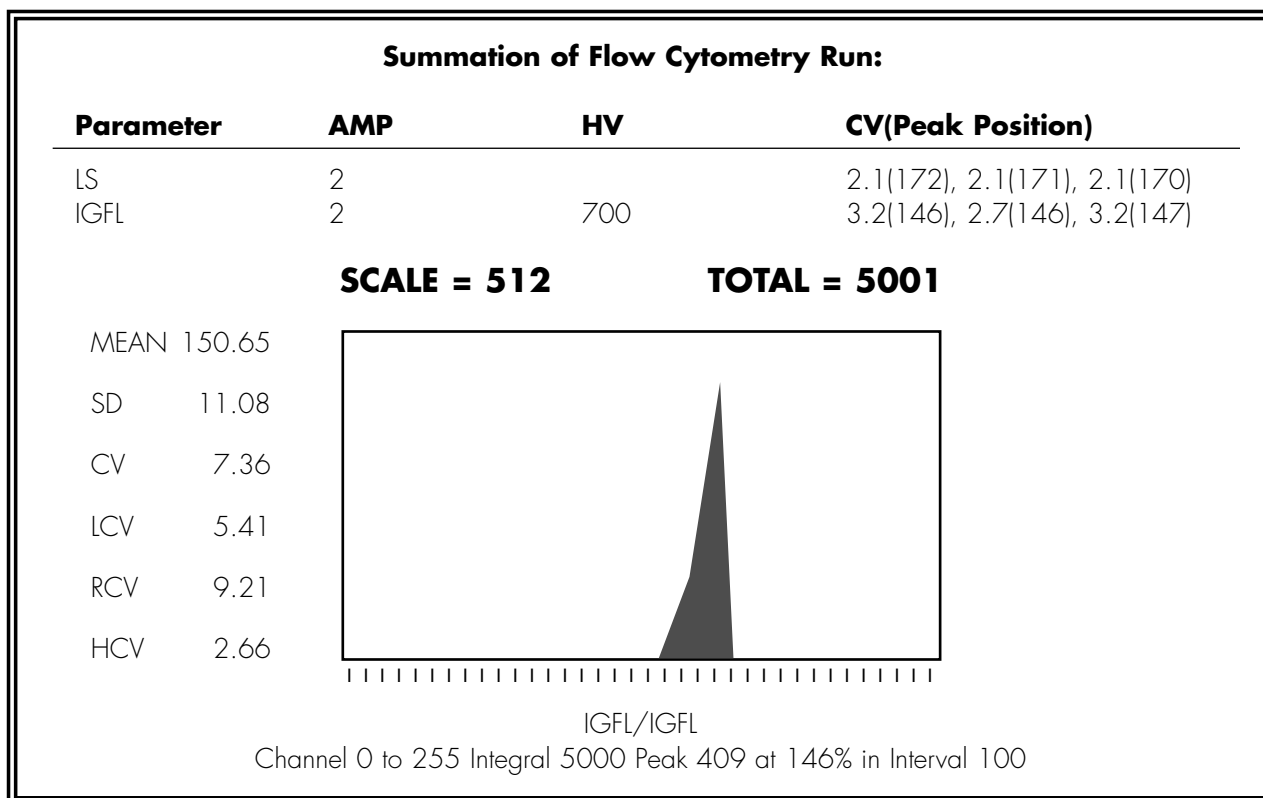
### Flow Check High Intensity Alignment Grade Particles

Polysciences offers a series of monodisperse, low CV particles in sizes ranging from 0.50µ to 6.0µ. All particles have been screened by flow cytometry labs to be suitable for instrument alignment. We use our own proprietary dyes to ensure long term stability.

Should any of our materials fail to perform to our specifications, we will be pleased to provide replacements or return the purchase price. We solicit your inquiries concerning all needs for life sciences work. The information given in this bulletin is to the best of our knowledge accurate, but no warranty is expressed or implied. It is the user's responsibility to determine the suitability for his own use of the products described herein, and since conditions of use are beyond our control, we disclaim all liability with respect to the use of any material supplied by us. Nothing contained herein shall be construed as a recommendation to use any product or to practice any process in violation of any law or any government regulation.

Catalog #	Nominal Size	Qty.	Bottle Concentration (particles/ml)	Dilution	Use Concentration (particles/ml)
23516	0.50 $\mu$ YG	10ml	1x10 <sup>9</sup>	1 drop to 20ml	2x10 <sup>6</sup>
23517	1.00 $\mu$ YG	10ml	1x10 <sup>8</sup>	1 drop to 10m	4x10 <sup>5</sup>
23518	2.00 $\mu$ YG	10ml	1x10 <sup>7</sup>	1 drop to 5ml	4x10 <sup>5</sup>
23519	6.00 $\mu$ YG	10ml	2x10 <sup>6</sup>	1 drop to 4 drops	4x10 <sup>5</sup>
23520	0.50 $\mu$ BB	10ml	1x10 <sup>9</sup>	1 drop to 20ml	2x10 <sup>6</sup>

A typical flow cytometry run appears below:



**Ordering Information:**

Cat. #	Description	Size
#23512	Flow Check YG 6.0 $\mu$ kit	4 x 10ml
#23513	Flow Check YG 2.0 $\mu$ kit	4 x 10ml
#23514	Flow Check BB/YG Compensation kit	2 x 10ml
#23515	Flow Check YG Range Calibration kit	4 x 10ml
#23516	Flow Check YG 0.50 $\mu$	10ml
#23517	Flow Check YG 1.00 $\mu$	10ml
#23518	Flow Check YG 2.00 $\mu$	10ml
#23519	Flow Check YG 6.00 $\mu$	10ml
#23520	Flow Check BB 0.50 $\mu$	10ml

To Order:

In The U.S. Call: 1-800-523-2575 • 215-343-6484  
 In The U.S. FAX: 1-800-343-3291 • 215-343-0214

In Germany Call: (49) 6221-765767  
 In Germany FAX: (49) 6221-764620

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