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BEADS • ABOVE THE REST™

DESCRIPTION

Current applications in flow cytometry extend far beyond traditional lymphocyte immunophenotyping, with some involving the analysis of very small particles such as platelet- and endothelial-derived microparticles or microbial species. Our Small Bead Calibration Kits allow operators to verify the resolution capabilities of the flow cytometer, and to establish appropriate instrument settings for the analyses.

CHARACTERISTICS

Nominal Diameters: 50nm, 100nm (Cat. Code 834)
 0.2µm, 0.5µm, 0.8µm (Cat. Code 832)
 1.0µm, 3.0µm, 6.0µm (Cat. Code 833)

Particle Concentration: ~1 x 10⁸ particles/mL (Cat. Code 834)
 ~1 x 10⁸ particles/mL (Cat. Code 832)
 ~2 x 10⁶ particles/mL (Cat. Code 833)

Fluorescence: YG (488nm excitation, green emission)

PROCEDURE

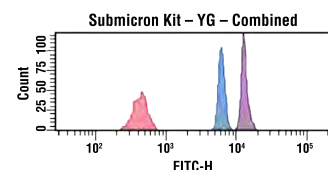
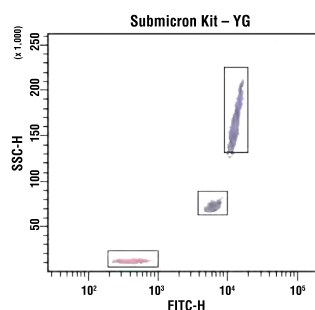
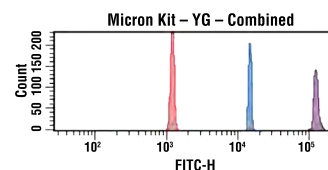
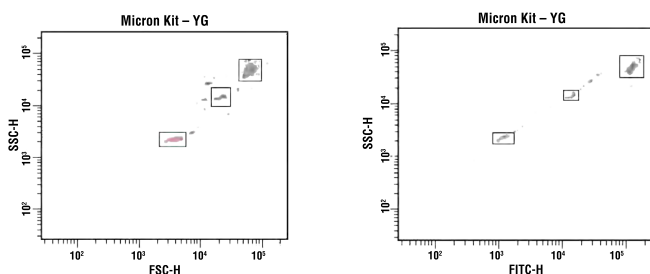
Researchers are advised to optimize the use of particles in any application.

1. Bath sonicate for 30 seconds or vigorously shake the bottle to ensure uniform suspension of standard.
2. Add 1 drop of each of the 3 sized beads into isotonic phosphate saline (pH 7.2).
3. Run the beads, adjusting voltages until the populations appear in the SSC / FITC dot plot. Construct fluorescence, SSC, and / or FSC histograms and conduct gating as appropriate for the specific application.

For specialized instructions and expected results related to the Nanobead Calibration Kit, see PDS 834.

EXPECTED RESULTS

The following dot plots and histograms demonstrate results obtained on a standard BD LSRII. The resolution capabilities of instruments can differ, and results may vary depending upon the specific instrument model and any specialized components. Microspheres are internally dyed with our YG fluorophore, permitting gating via SSC / green fluorescence. Small particles present particular challenges in flow cytometry, and users may or may not be able to conduct FSC (size)–based gating. It may also be necessary to adjust thresholds and voltages to achieve separation of the populations.



STORAGE

Store at 2-8°C. Freezing of particles may result in irreversible aggregation and loss of binding activity. Stable for 12 months from date of purchase, provided the product is handled in accordance with the manufacturer's recommendations. Specifically, the reagent should be kept in its opaque bottle.

SAFETY

This particle suspension contains sodium azide. Sodium azide may react with lead and copper plumbing to form explosive metal azides. Upon disposal of material, flush with a large volume of water to prevent azide accumulation. Please consult the Safety Data Sheet for more information.

These products are for research use only and are not intended for use in humans or for *in vitro* diagnostic use.

ORDERING INFORMATION

Cat. Code	Description	Size
834	Nanobead Calibration Kit • 50nm, 100nm	1 kit
832	Submicron Bead Calibration Kit • 0.2µm, 0.5µm, 0.8µm	1 kit
833	Micron Bead Calibration Kit • 1.0µm, 3.0µm, 6.0µm	1 kit

* Kits contain 3mL per population, 60 tests.

Order online anytime at www.bangslabs.com.