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Thermo Scientific

Flow Cytometry,
Hematology & Diagnostics

Sales Bulletin 125C

9/15/07

Cyto-Cal™ Low Intensity Calibrator

Optimize Your Instrument for Dimly Labeled Cell Analysis

Applications:

- Flow Cytometry
- Cell Sorting

Advantages:

Superior bead size uniformity and dye intensity uniformity

A history of more than thirty years experience in synthesis, dyeing, measuring, packaging and support

Benefits:

Routine monitoring of low-end sensitivity

Can alert you to impending flow or optical problems; flow cell contamination

Appropriate dyes and intensity levels provide data from four decades of the log amp—the entire sensitivity range of most instruments

Assists in setting gates for cell sorting



50% 6 µm diameter, dimly labeled beads (mixture of fluorescent green, orange and red dyes)



50% 6 µm diameter blank beads (no dye)

Product Description. In many flow cytometry applications, it is critical to be able to separate dimly labeled cells from unlabeled (autofluorescent) cells. Cyto-Cal Low Intensity Calibrator enables simultaneous monitoring of FL1 (FITC), FL2 (PE), FL3 (PE-Cy5) and FL4 (APC) channels for adequate fluorescence sensitivity and discrimination (Figure 1, reverse.) The Calibrator contains an equal mixture of 6 micrometer (µm) undyed microspheres and microspheres dimly labeled with green, orange and red fluorescent dyes which are designed to imitate a mixture of unlabeled and dimly labeled cells. The dyes are incorporated within the polymer matrix (hard-dyed) for long-term stability, using Duke Scientific's proprietary Firefli™ process.

Product Attributes

Particle Composition:	Polystyrene Containing Encapsulated Dyes
Dyes:	Firefli™ Fluorescent Green (488/510 nm), Orange (488/575 nm) and Red (488, 633, 635/700 nm)
Sizes(s):	6 µm Nominal Diameter
Concentration:	Approximately 4 x 10 ⁶ particles/mL
Particle Density:	1.06 g/cm ³
Fill Volume:	3 mL
Content:	Dyed Polymer Microspheres in Water
Expiration Date:	> 12 months
Additives:	0.05% Tween-20 Dispersant / Surfactant with 2 mM Sodium Azide Preservative
Package Includes:	Package Insert Sheet and Material Safety Data Sheet (MSDS)
Storage & Handling:	Refrigerate when not in use; do not freeze. Store upright and keep bottle tightly sealed. Mix product by gentle inversion by hand or vortex mixer.



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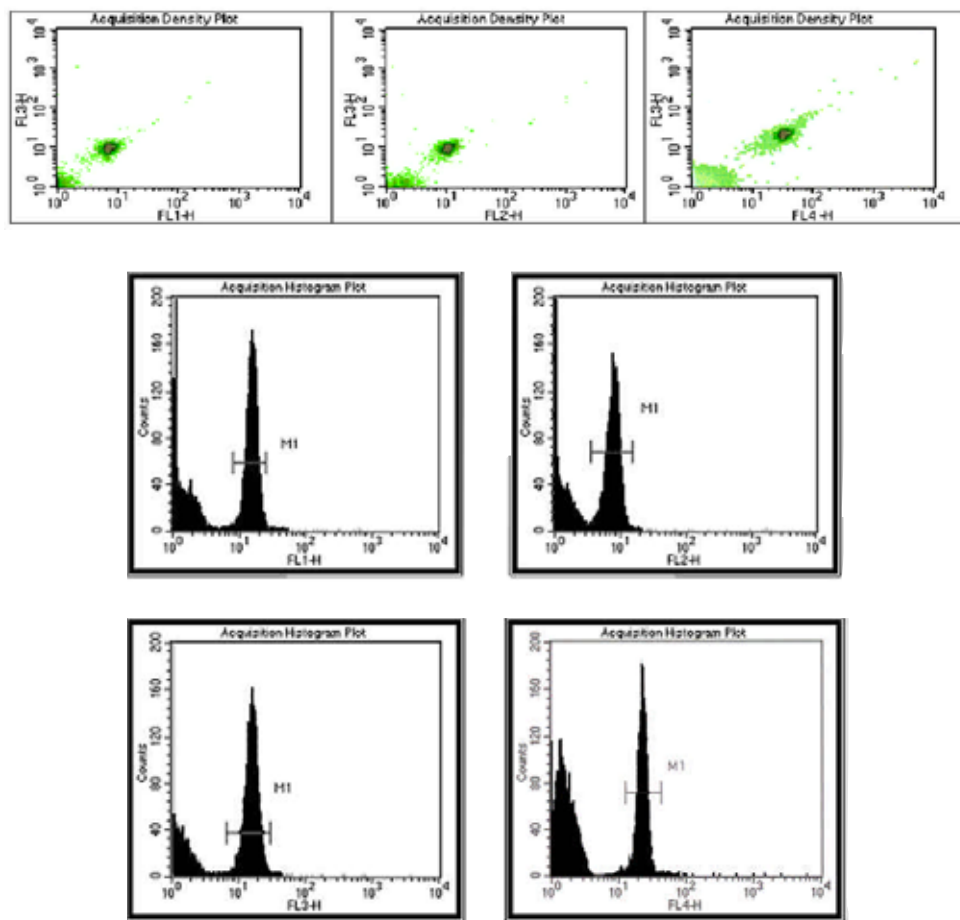


Figure 1. Typical data from a FACScan®. Becton Dickinson and Co., San Jose, CA results on different instruments may vary.

Ordering Information

Catalog Number	Description	Quantity
FL6	Cyto-Cal Low Intensity Calibrator	3mL

All products are manufactured and packaged at our ISO 9001:2000 registered facility in Fremont. Please feel free to contact our technical service department if you have any questions about these products or have a special material requirement not listed here.

Due to minor variations between batches, mean diameters may change slightly from batch to batch.

LIMITED WARRANTY: These products are intended for laboratory use by trained scientific personnel. Determination of their suitability for a specific end-use is the responsibility of the user, who assumes all liability for loss or damage arising out of the use of the product. Rebottling or relabeling voids the warranty and certification. Microgenics Corporation's warranty is limited to the replacement of defective products if returned with our authorization within 60 days of purchase date.

THE FOREGOING WARRANTY SHALL BE IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL MICROGENICS BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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Cyto-Cal™ is a trademark of Microgenics Corporation.

Also available:

Sales Bulletin 123 Cyto-Cal™ Multifluor Fluorescent Intensity Calibrator

Sales Bulletin 124 Cyto-Cal™ Alignment Beads

Microgenics also provides products for multiplex assay development:

Sales Bulletin 109 Cyto-Plex™ Carboxylated Microspheres (4 μm)

Sales Bulletin 129 Cyto-Plex™ Carboxylated Microspheres (5 μm)

Sales Bulletin 128 Cyto-Plex™ Avidin Microspheres