

Cyto-Plex™ Carboxylated Microspheres

Open Platform Microspheres for Suspension Array Analysis

Applications:

- Flow Cytometry
- Image Analysis
- Laser Scanning Devices
- Microplate Readers

Advantages:

Excellent peak discrimination

Compatible with a broad range of instruments

Very uniform particle size distribution provides high specificity and sensitivity

Single bead size requires the development and optimization of only one bead chemistry

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

Custom products available

Benefits:

Flexible open platform system—can expand the market for your multiplex assays

Only one uniform size with < 2% C.V. for excellent specificity and sensitivity

Twelve intensity levels (off-the-shelf)

Minimized cross-over between populations

High functional group densities to bind more analyte

Combine with existing 4 µm Cyto-Plex for up to 20 different analytes

Surfactant-free particles require no pre-cleaning steps

Custom designed for your application



Product Description. Suspension array analysis is a powerful technique enabling the simultaneous detection and quantitation of multiple analytes with a single sample. Using color coded microspheres with the appropriate dyes, these tests can now be carried out using commonly available flow cytometers.

Cyto-Plex Carboxylated Microspheres from Duke Scientific provide twelve levels of red fluorescent intensities for analysis of twelve different analytes. The Cyto-Plex Microsphere kits consist of highly uniform particles with fluorescence intensities which are completely separated from each other (Figure 1, reverse). The use of a single diameter 5 micrometer (µm) microsphere for all dye levels saves time by only requiring the development and optimization of one bead chemistry. High-density binding sites and low non-specific binding enable coupling to a wide variety of antibodies, nucleic acids and other biomolecules.

Product Attributes

Particle Composition:	Polystyrene with Copolymer Grafted Surface
Surface Functionalities:	Carboxylated 35 µeq/gram
Dyes:	Firefli™ Fluorescent Red
Size(s):	5 µm Nominal Diameter
Uniformity:	< 2% C.V.
Concentration:	Approximately 7.3 x 10 ⁷ particles/mL
Particle Density:	1.06 g/cm ³
Fill Volume:	1 mL
Content:	Polystyrene Microspheres in Water
Expiration Date:	≥ 12 months
Additives:	Sodium Azide Preservative, 0.05% Tween-20
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.

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2-Parameter Scatter Plot

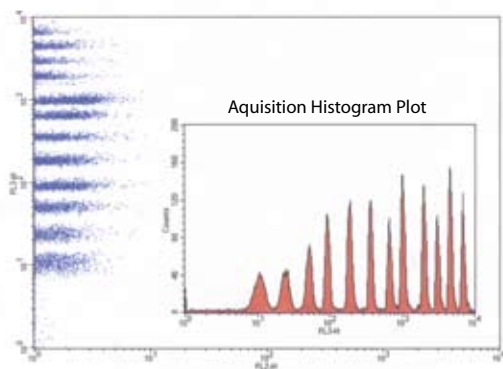


Figure 1: Typical data from a FACScan®. Becton, Dickinson and Co., San Jose, CA.
Results on different instruments may vary.

Ordering Information

Carboxylate-modified	Catalog Number		
	1 mL	5 mL	
Red, Level 1 (low)	FM5CR01	FM5CR01B	<ul style="list-style-type: none">• Fill Volume 1 mL and 5 mL• 5 µm Mean Diameter*• C.V. < 2%• Concentration approximately 1.4×10^8 particles/mL <p><small>*Mean diameter of these particles is determined by optical microscopy</small></p>
Red, Level 2	FM5CR02	FM5CR02B	
Red, Level 3	FM5CR03	FM5CR03B	
Red, Level 4	FM5CR04	FM5CR04B	
Red, Level 5	FM5CR05	FM5CR05B	
Red, Level 6	FM5CR06	FM5CR06B	
Red, Level 7	FM5CR07	FM5CR07B	
Red, Level 8	FM5CR08	FM5CR08B	
Red, Level 9	FM5CR09	FM5CR09B	
Red, Level 10	FM5CR10	FM5CR10B	
Red, Level 11	FM5CR11	FM5CR11B	
Red, Level 12 (high)	FM5CR12	FM5CR12B	

Cyto-Plex Carboxylated Microspheres have maximum emission at 700 nm, and can be excited with either 488 nm or 633 nm lasers. Emission can be collected in either the PE-Cy5 or APC channels. Since there is little or no emission in the FITC and PE channels, probes utilizing either of these dyes can be effectively used as reporters.

Try our latest product offerings:

For information on preparing latex-protein conjugates using both hydrophobic adsorption and covalent coupling, please see **Technical Note TN-013 Reagent Microspheres-Surface Properties and Conjugation Methods**.

Also available:

Sales Bulletin 128 Cyto-Plex™ Avidin Microspheres

Sales Bulletin 109 Cyto-Plex™ Carboxylated Microspheres 4 µm

Microgenics also provides products for flow cytometry instrument performance monitoring:

Sales Bulletin 123 Cyto-Cal™ Multifluor Fluorescence Intensity Calibrator

Sales Bulletin 124 Cyto-Cal™ Alignment Beads

Sales Bulletin 125 Cyto-Cal™ Low Intensity Calibrator

Sales Bulletin 131 Cyto-Cal™ Count Control

Sales Bulletin 129D

9/15/07

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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