

Spherotech, Inc.

27845 Irma Lee Circle, Unit 101, Lake Forest, IL 60045

SPHERO™ Flow Cytometry Multiplex Bead Assay Particles

SPHERO™ Flow Cytometry Multiplex Bead Assay Particles are designed for the development of flow cytometer multiplex assays. These kits are used extensively by companies or laboratories which develop assays for allergy testing, autoimmune diseases, cardiac markers, cytokine detection, endocrine markers, infectious disease markers, isotyping, genotyping, kinase and phosphorylated protein activity, metabolic markers, and tissue typing. These kits are available with a variety of functionality, fluorophores and coatings.

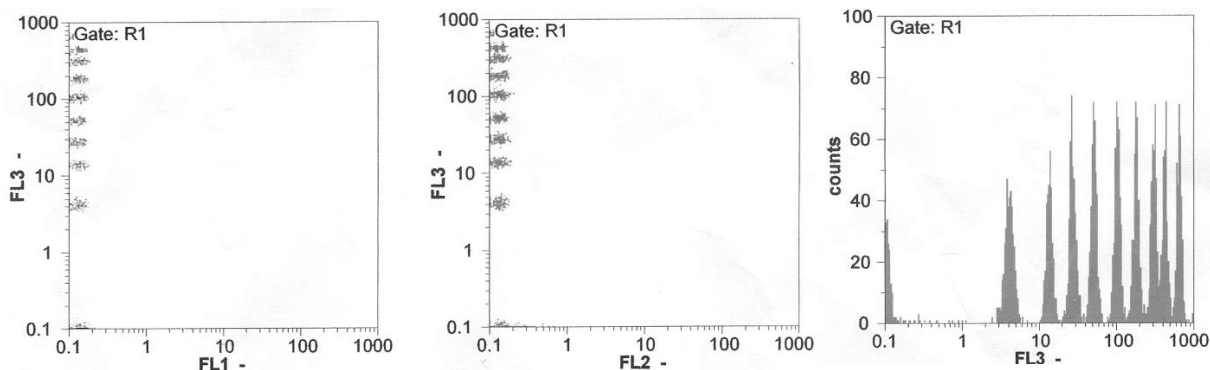
SPHERO™ Blue Fluorescent Particle Array Kits (PAK)

Blue PAK (Particle Array Kits) for multiplex flow assay are now available from Spherotech. The Blue PAK particles are fluorescent in PE-Cy5, APC, and APC-Cy7 channel with minimal fluorescent in FITC and PE channels with 488 or 635 nm excitation. This allows that either or both FITC or PE tracers can be used for detection. The Blue PAK Particles are available with different functionalities and coatings. Carboxyl, amino and plain polystyrene functionalities are available for covalent attachment or passive adsorption of ligands. The Blue PAK and Carboxyl Blue PAK are available in 7.66 μm (9 peaks), 5.1 μm (10 peaks), 4.0 μm (8 peaks) and 3.6 μm (7 peaks) sizes. Blue PAK particles are also available with a surface layer of Streptavidin and Goat anti-Mouse IgG (H&L).

Most state-of-the-art single laser flow cytometers can resolve the 3.6 μm , 4.0 μm and 5.1 μm Blue PAKs easily in FSC/SSC channels. Ideally, one can mix them together and use both FITC and PE to run 50 assays in the same tubes with most single laser flow cytometers.

Particle Type and Surface	Size, μm	Catalog No.	Unit
Blue - 7 peaks, $10^8/\text{mL}$	3.5-3.9	PAK-3567-7K	7x1 mL
Blue - 8 peaks, $10^8/\text{mL}$	4.0-4.9	PAK-4067-8K	8x1 mL
Blue - 10 peaks, $10^8/\text{mL}$	5.0-5.9	PAK-5067-10K	10x1 mL
Blue - Odd # peaks, $10^8/\text{mL}$	5.0-5.9	PAK-5067-5A	5x1 mL
Blue - Even # peaks, $10^8/\text{mL}$	5.0-5.9	PAK-5067-5B	5x1 mL
Blue - 9 peaks, $10^7/\text{mL}$	7.0-7.9	PAK-7067-9K	9x1 mL
Carboxyl Blue - 7 peaks, $10^8/\text{mL}$	3.5-3.9	CPAK-3567-7K	7x1 mL
Carboxyl Blue - 8 peaks, $10^8/\text{mL}$	4.0-4.5	CPAK-4067-8K	8x1 mL
Carboxyl Blue - 10 peaks, $10^8/\text{mL}$	5.0-5.9	CPAK-5067-10K	10x1 mL
Carboxyl Blue - Odd # peaks, $10^8/\text{mL}$	5.0-5.9	CPAK-5067-5A	5x1 mL
Carboxyl Blue - Even # peaks, $10^8/\text{mL}$	5.0-5.9	CPAK-5067-5B	5x1 mL
Carboxyl Blue - 9 peaks, $10^7/\text{mL}$	7.0-7.9	CPAK-7067-9K	9x1 mL
Carboxyl Blue Chemistry Development Particles, $10^8/\text{mL}$	5.0-5.9	CFP-5067-2	2 mL
Amino Blue - 7 peaks, $10^8/\text{mL}$	3.5-3.9	APAK-3567-7K	7x1 mL
Goat anti-Mouse IgG Blue - 10 peaks, $10^6/\text{mL}$	5.0-5.9	MPAK-5067-10K	10x1 mL
Goat anti-Mouse IgG Blue - Odd # peaks, $10^6/\text{mL}$	5.0-5.9	MPAK-5067-5A	5x1 mL
Goat anti-Mouse IgG Blue - Even # peaks, $10^6/\text{mL}$	5.0-5.9	MPAK-5067-5B	5x1 mL
Streptavidin Blue - 10 peaks, $10^6/\text{mL}$	5.0-5.9	SVPAK-5067-10K	10x1 mL
Streptavidin Blue - Odd # peaks, $10^6/\text{mL}$	5.0-5.9	SVPAK-5067-5A	5x1 mL
Streptavidin Blue - Even # peaks, $10^6/\text{mL}$	5.0-5.9	SVPAK-5067-5B	5x1 mL

Histograms of PAK-5067-10K



Histograms provided by Partec GmbH

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Visit us on the web at <http://www.spherotech.com>

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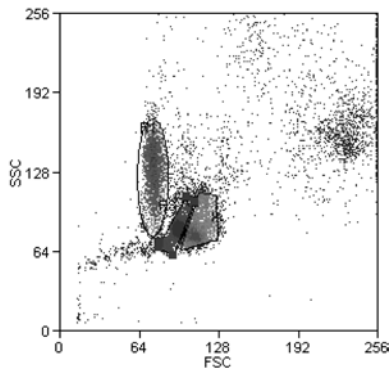
SPHERO™ Fluorescent Particle Array Kits (PAK)

The Yellow Fluorescent Particle Kits consist of 3.6µm and 2.5-2.9 µm particles with multiple fluorescence intensities in FITC channels. These kits are used to develop multiplex assays using either PE or PE-Cy5 tracers for detection.

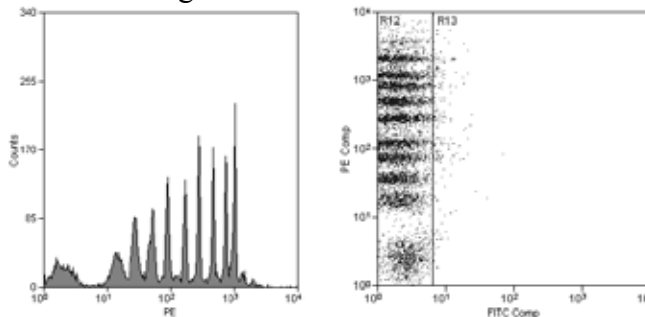
The Pink Fluorescent Particle Kits consist of either 2.5-2.9 µm or 3.5-3.9 µm with twelve different intensities in the PE channel. FITC conjugates can be used for detection. They are supplied as kits of either six odd numbered peaks or six even numbered peaks for the 2.5-2.9 µm and 3.5-3.9 µm particle kits. Carboxyl Pink Fluorescent are available for covalent coupling of proteins, antibodies, or antigens. Goat anti-Mouse IgG (Fc), Streptavidin, and Biotin coated Pink Fluorescent Particles Kits are also available for other applications.

The Pink Fluorescent Particle Array Kits (FPAK) are similar to the Pink Fluorescent Particle Kits except that the FPAK particles are made from a higher quality polystyrene particle. These particles are designed for flow cytometry application. The 3.0-3.4 µm kit has nine different intensities, while the 4.0-4.5µm kit has ten different intensities. The FPAK particles can be used in conjunction with the Blue PAKs for advanced multiplex applications.

Histogram of FPAK-4058-10K, FPAK-3058-9K, FA-3558-6K and FB-3558-6K



Histograms of FPAK-4058-10K



Particle Type and Surface	Size, µm	Catalog No.	Unit
Yellow, Odd # peaks, 0.5% w/v	2.5-2.9	FA-2552-6K	6x1 mL
Yellow, Even # peaks, 0.5% w/v	2.5-2.9	FB-2552-6K	6x1 mL
Pink, 9 peaks, 10 ⁸ /mL	3.0-3.4	FPAK-3058-9K	9x1 mL
Pink, Odd # peaks, 0.5% w/v	3.5-3.9	FA-3558-6K	6x1 mL
Pink, Even # peaks, 0.5% w/v	3.5-3.9	FB-3558-6K	6x1 mL
Pink, 10 peaks, 10 ⁸ /mL	4.0-4.5	FPAK-4058-10K	10x1 mL
Yellow, 9 peaks, 0.5% w/v	3.5-3.9	FX-3552-9K	9x1 mL
Carboxyl Yellow, Odd # peaks, 0.25% w/v	2.0-2.9	CFA-2552-6K	6x1 mL
Carboxyl Yellow, Even # peaks, 0.25% w/v	2.0-2.9	CFB-2552-6K	6x1 mL
Carboxyl Yellow, 9 peaks, 0.25% w/v	3.5-3.9	CFX-3552-9K	9x1 mL
Carboxyl Yellow, 3 peaks, 10 ⁷ /mL	7.0-7.9	CPAK-7052-3K	3x1 mL
Carboxyl Yellow, 6 peaks, 10 ⁷ /mL	7.0-7.9	CPAK-7052-6K	6x1 mL
Carboxyl Pink, Odd # peaks, 0.25% w/v	2.5-2.9	CFA-2558-6K	6x1 mL
Carboxyl Pink, Even # peaks, 0.25% w/v	2.5-2.9	CFB-2558-6K	6x1 mL
Carboxyl Pink, Odd # peaks, 0.25% w/v	3.5-3.9	CFA-3558-6K	6x1 mL
Carboxyl Pink, Even # peaks, 0.25% w/v	3.5-3.9	CFB-3558-6K	6x1 mL
Goat anti-Mouse IgG (Fc), Pink, Odd # peaks, 0.1% w/v	3.5-3.9	MFA-3558-6K	6x1 mL
Goat anti-Mouse IgG (Fc), Pink, Even # peaks, 0.1% w/v	3.5-3.9	MFB-3558-6K	6x1 mL
Streptavidin Yellow, Odd # peaks, 0.1% w/v	2.5-2.9	SVFA-2552-6K	6x1 mL
Streptavidin Yellow, Even # peaks, 0.1% w/v	2.5-2.9	SVFB-2552-6K	6x1 mL
Streptavidin Pink, Odd # peaks, 0.1% w/v	2.5-2.9	SVFA-2558-6K	6x1 mL
Streptavidin Pink, Even # peaks, 0.1% w/v	2.5-2.9	SVFB-2558-6K	6x1 mL
Biotin Pink, Odd # peaks, 0.1% w/v	3.5-3.9	TFA-3558-6K	6x1 mL
Biotin Pink, Even # peaks, 0.1% w/v	3.5-3.9	TFB-3558-6K	6x1 mL

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