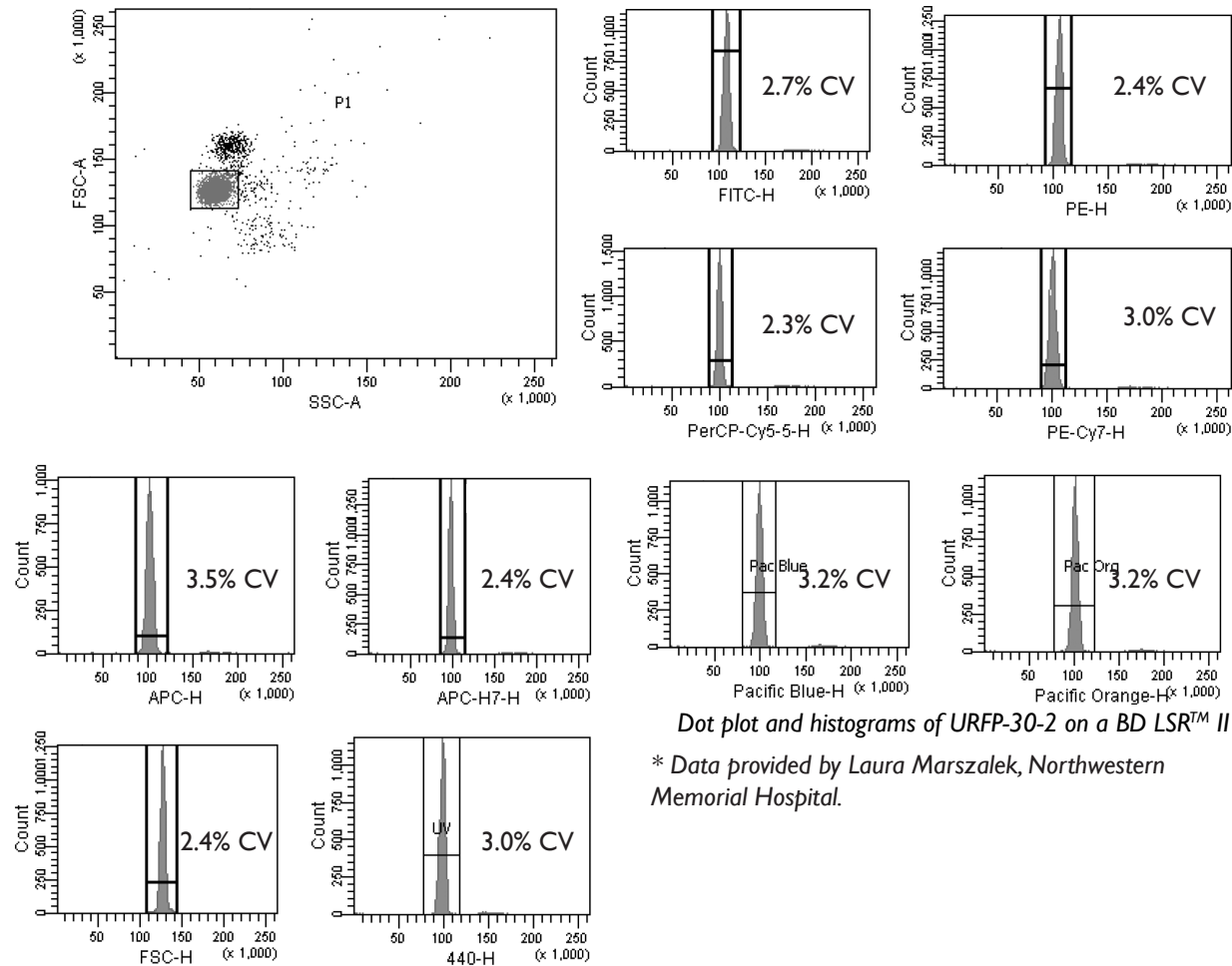


SPHERO™ Ultra Rainbow Fluorescent Particles

- Consists of a single peak for optical alignment of any flow cytometer in all channels from UV to Far Red
- Determines if the flow cell is clean and without fluidic blockage
- Measures the coefficients of variation (CVs), peak channels, and histogram distribution to determine the functionality of flow cytometers.

New flow cytometers, with fluorescent channels from the UV to Far Red, and corresponding fluorescent conjugates are now available. As a result, we have developed the Ultra Rainbow Fluorescent Particles with enhanced UV and Far Red fluorescence intensity. The Ultra Rainbow Fluorescent Particles contain a single peak and are designed for checking the optical alignment of any flow cytometer in all channels.

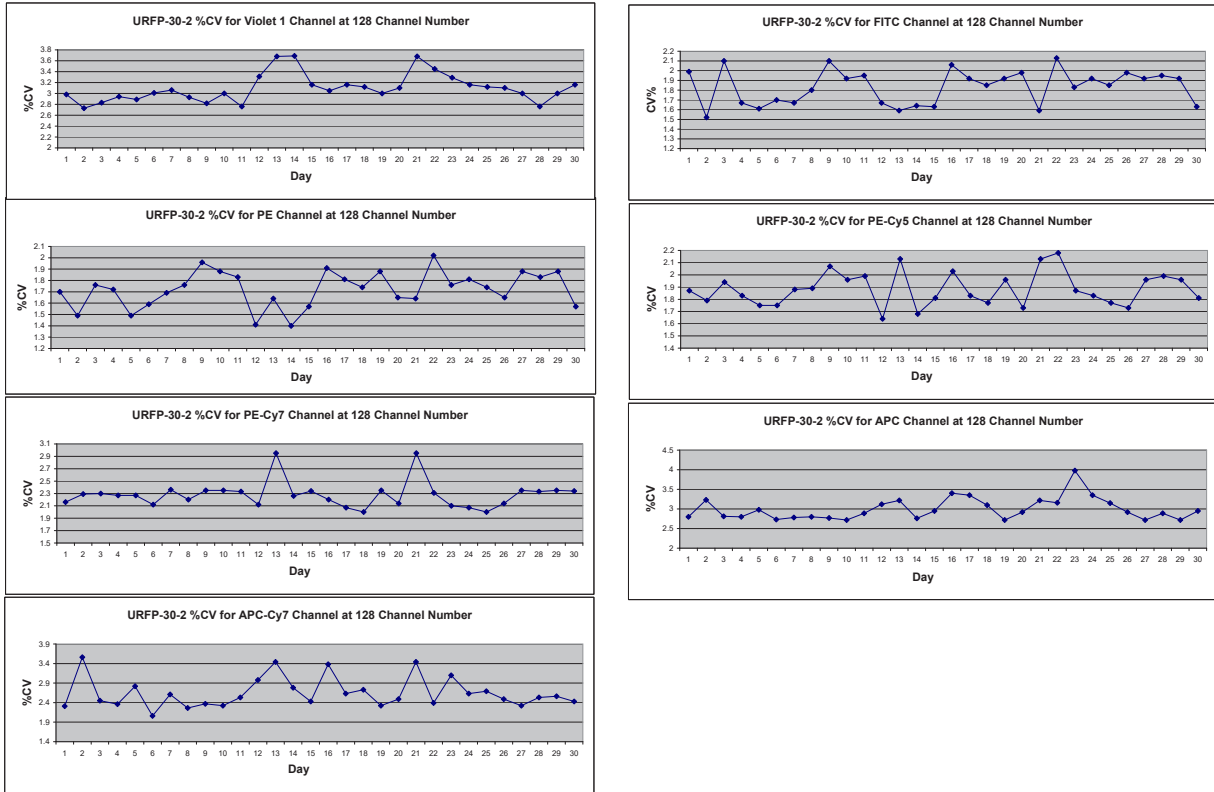
Particle Type and Surface	Size, μm	Catalog No.	Unit
Ultra Rainbow Fluorescent, $10^{10}/\text{mL}$	0.1-0.3	URFP-02-2	2 mL
Ultra Rainbow Fluorescent, $10^7/\text{mL}$	0.4-0.6	URFP-05-2	2 mL
Ultra Rainbow Fluorescent, $10^7/\text{mL}$	1.0-1.4	URFP-10-5	5 mL
Ultra Rainbow Fluorescent, $10^7/\text{mL}$	3.0-3.4	URFP-30-2	2 mL
Ultra Rainbow Fluorescent, $10^7/\text{mL}$	3.0-3.4	URFP-30-20	20 mL
Ultra Rainbow Fluorescent, $10^6/\text{mL}$, Ready-to-Use	3.0-3.4	URFP01-30-2K	2x15mL
Ultra Rainbow Fluorescent, $10^6/\text{mL}$, Ready-to-Use	3.0-3.4	URFP01-30-10K	10x3mL
Ultra Rainbow Fluorescent, $10^7/\text{mL}$	3.8 (+/-0.3)	URFP-38-2	2 mL
Ultra Rainbow Fluorescent, Mid-Range Intensity, $10^7/\text{mL}$	3.8 (+/-0.3)	URFP-38-5A	5 mL
Ultra Rainbow Fluorescent, $10^7/\text{mL}$	8.1-12.0	URFP-100-2	2 mL
Ultra Rainbow Fluorescent, $5 \times 10^6/\text{mL}$	13.0-17.9	URFP-150-2	2 mL
Ultra Rainbow Fluorescent, 1% w/v	18.0-24.9	URFP-200-5	5 mL
Ultra Rainbow Fluorescent, 1% w/v	25.0-35.0	URFP-300-5	5 mL



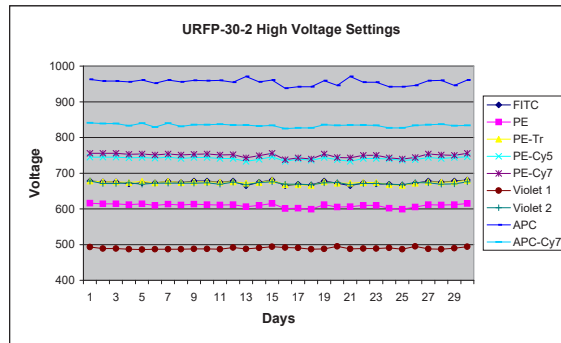
Dot plot and histograms of URFP-30-2 on a BD LSR™ II

* Data provided by Laura Marszalek, Northwestern Memorial Hospital.

Flow Cytometry Alignment Particle



Levy Jennings Graphs for the %CV of the URFP-30-2 at the 128 Channel Number on a Beckman Coulter CyAn™ ADP



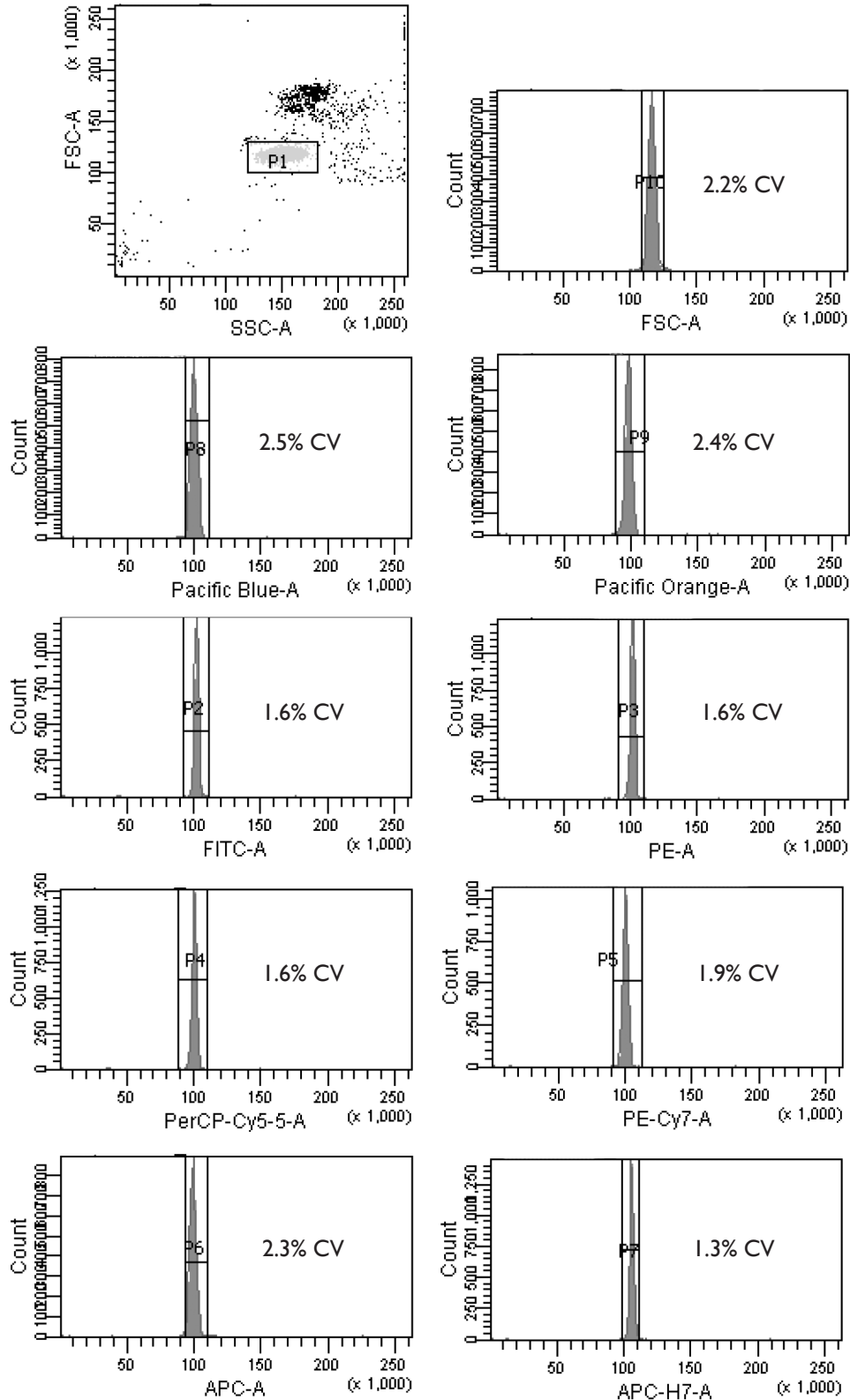
Levy Jennings Graph for the Voltage Setting for the URFP-30-2 at the 128 Channel Number on a Beckman Coulter CyAn™ ADP.

SPHERO™ Ultra Rainbow Fluorescent Particles

One Bead Aligns all Channels

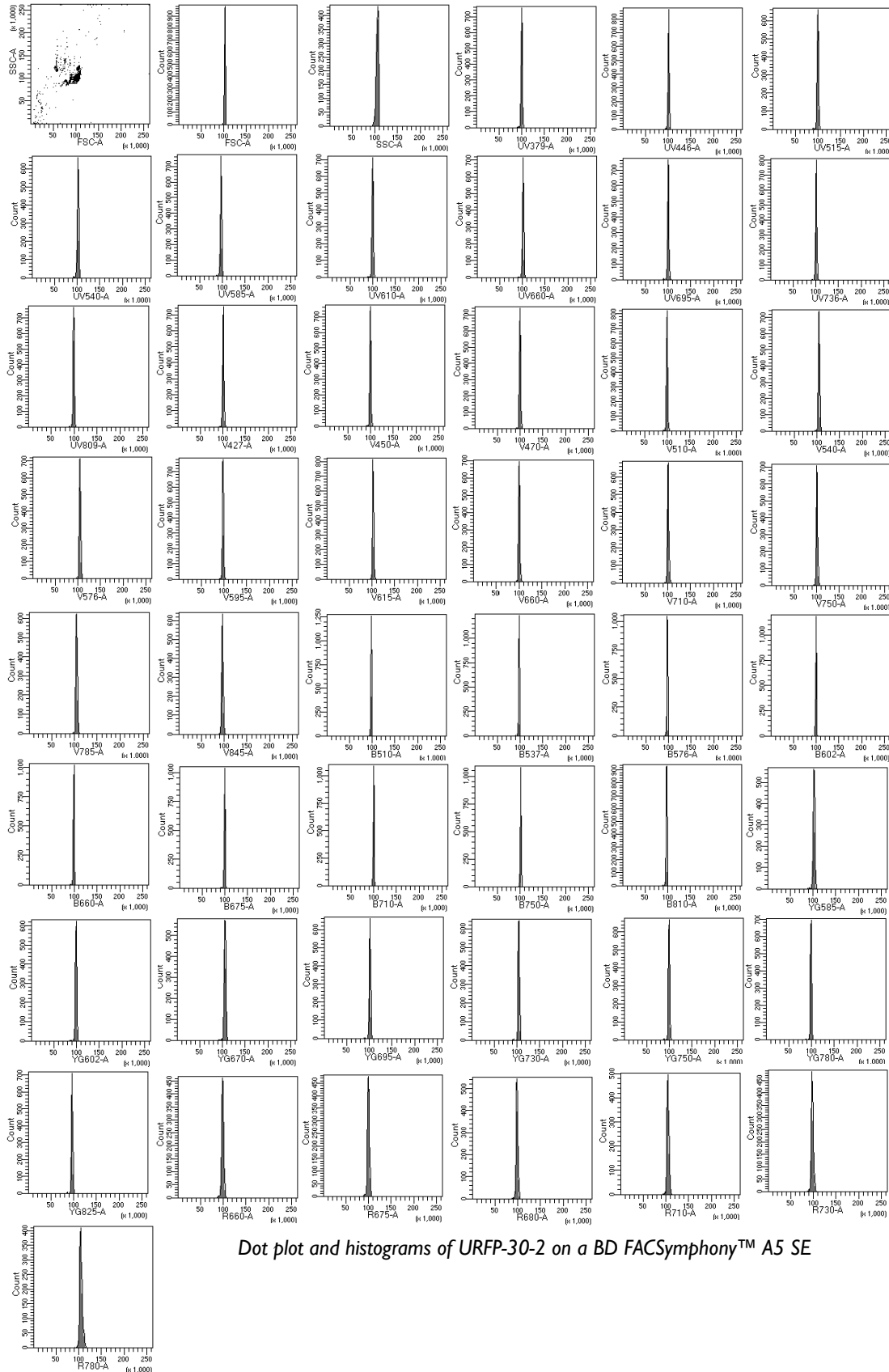
- Aids in the alignment and optimization of all fluorescent and scatter parameters
- Determines if the flow cell is clean and without fluidic blockage
- Measures the coefficients of variation (CVs), peak channels, and histogram distributions to determine the functionality of the flow cytometer.

www.spherotech.com

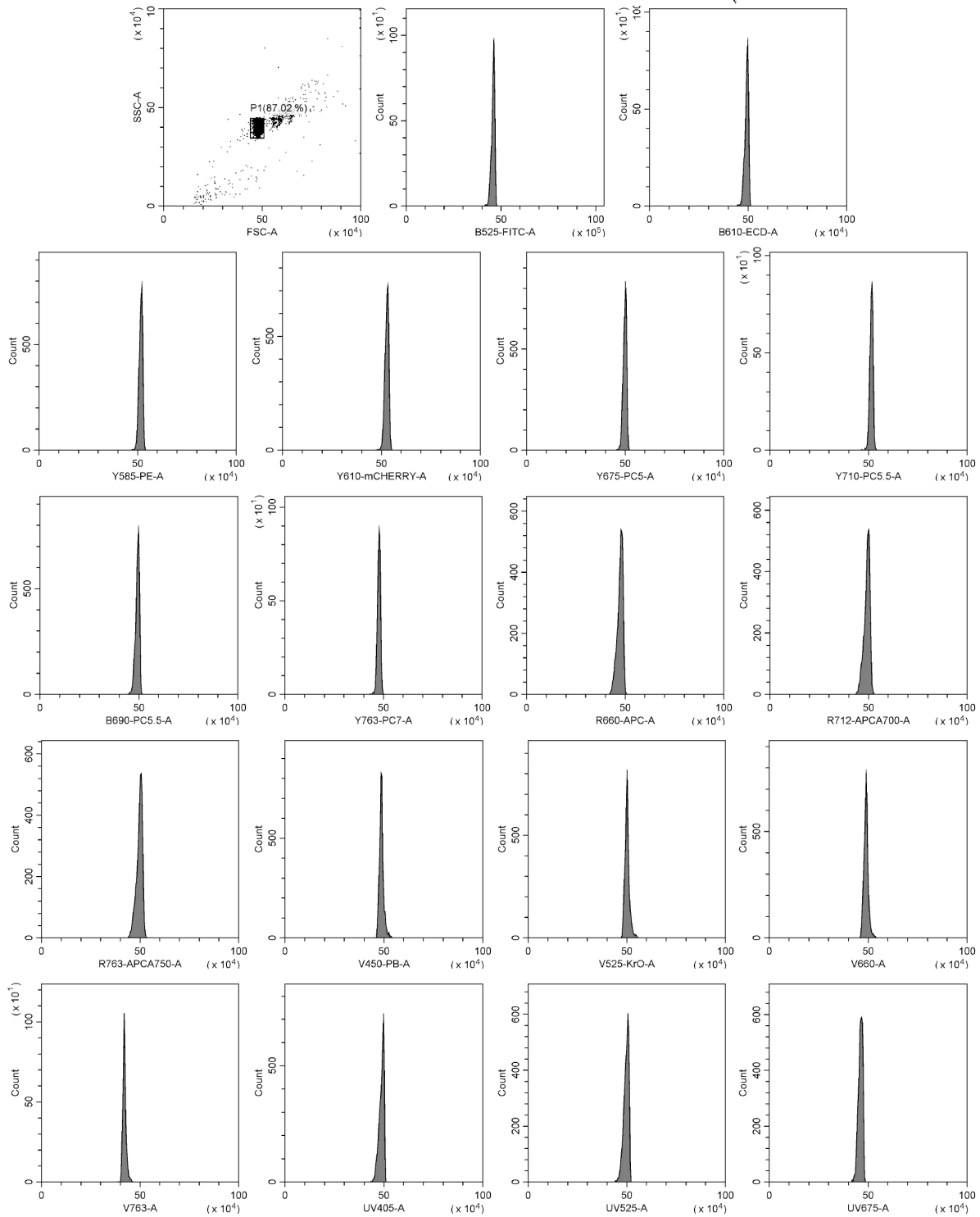


Dot plot and histograms of URFP-30-2 on a BD Canto™ II

To see more information on Spherotech beads for flow cytometry calibration and standardization go to: www.Spherotech.com/tech.htm

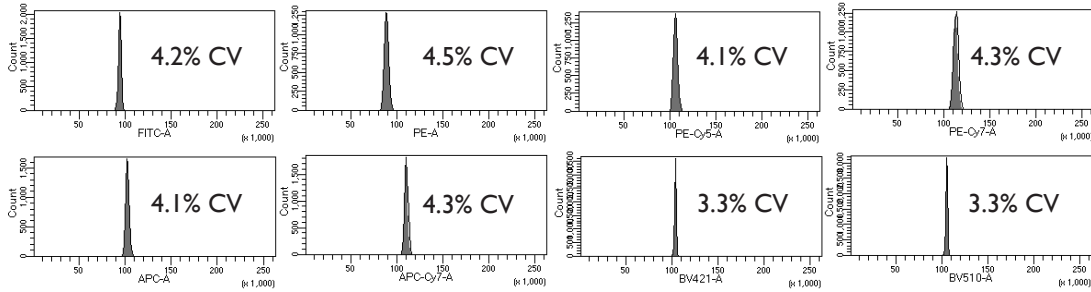


Dot plot and histograms of URFP-30-2 on a BD FACSymphony™ A5 SE

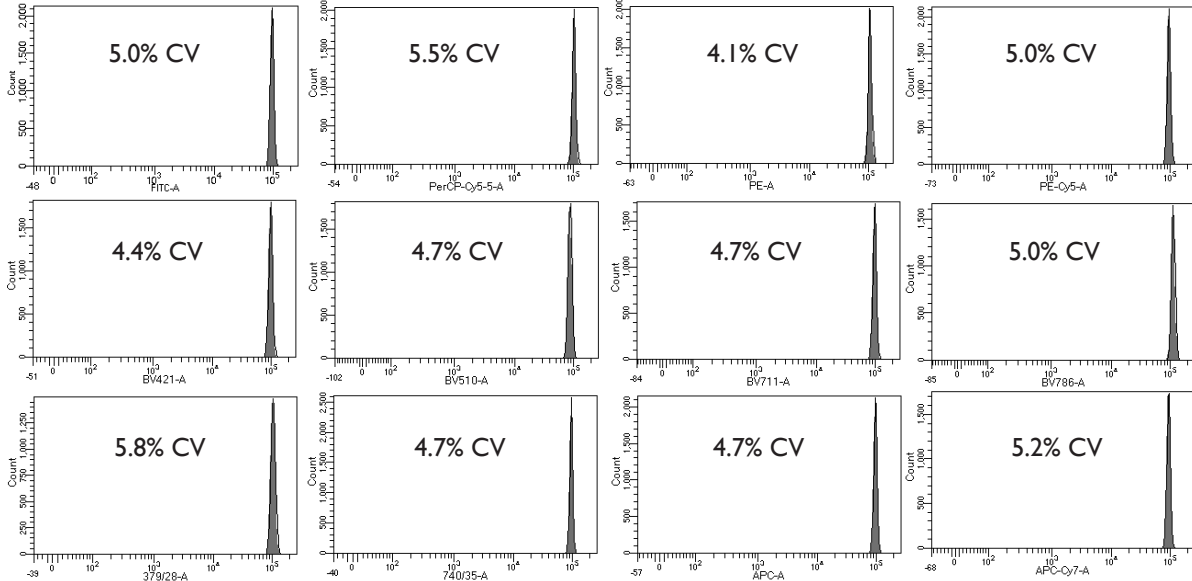


Dot plot and histograms of URFP-30-2 on a CytoFLEX LX

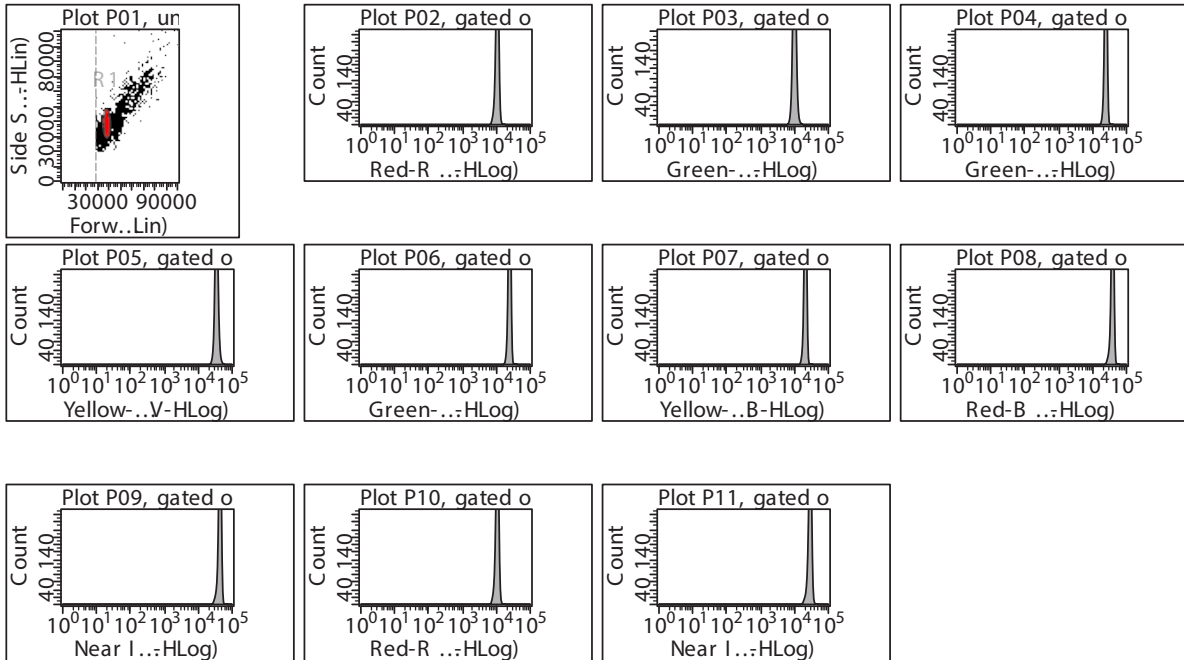
Flow Cytometry
 Alignment Particle



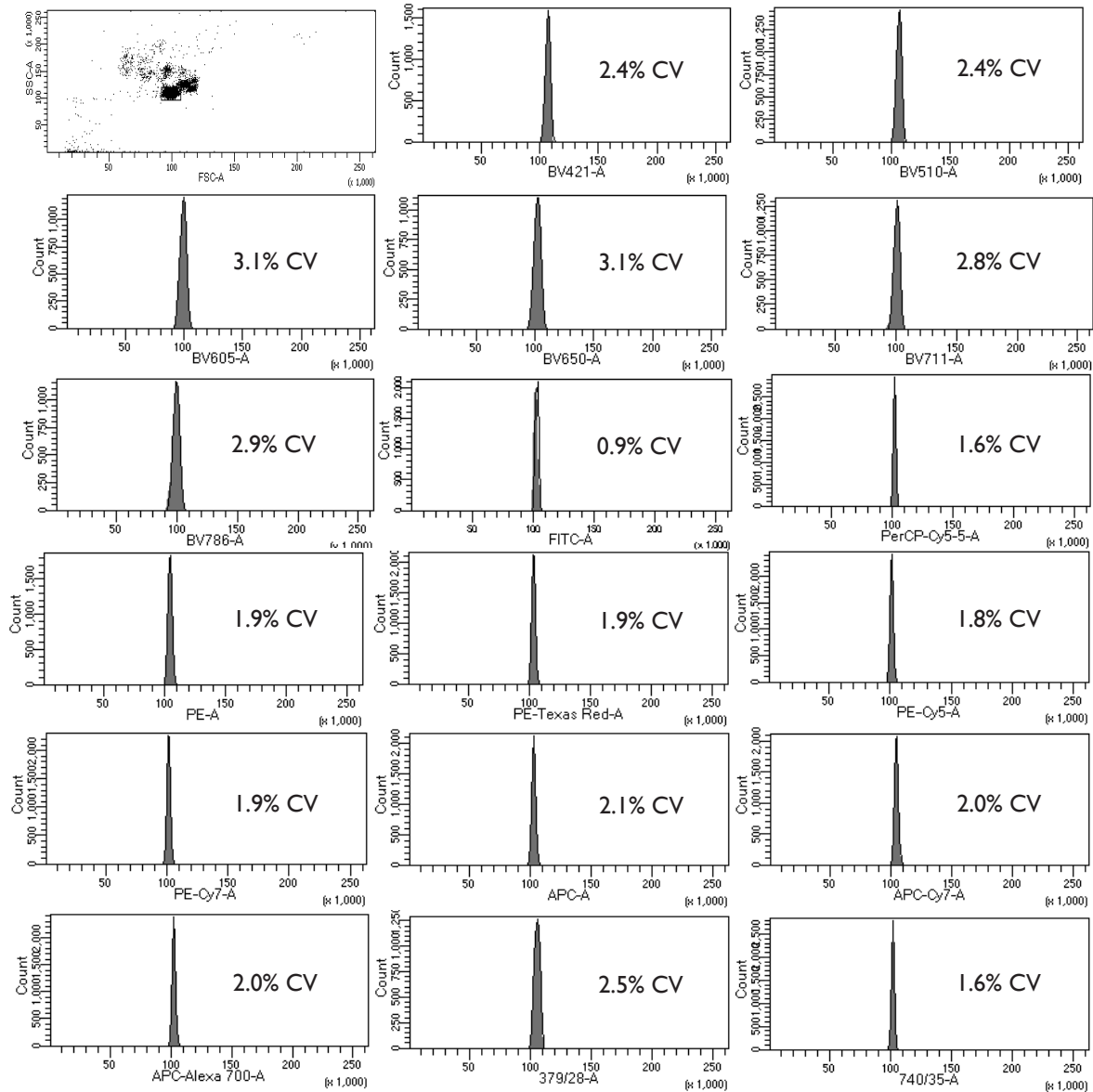
URFP-38-2 on a BD Bioscience Fortessa™ X-20



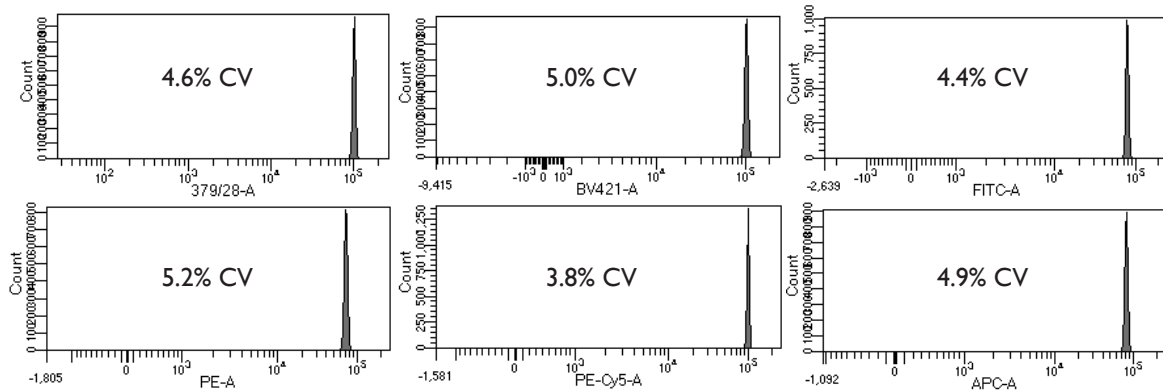
Histograms of URFP-100-2 on a BD Bioscience Fortessa™ X-20



Dot plot and histograms of URFP-30-2 on a EMD Millipore Guava easyCyte™ 12



Dot plot and histograms of URFP-30-2 on a BD Fortessa™ X-20



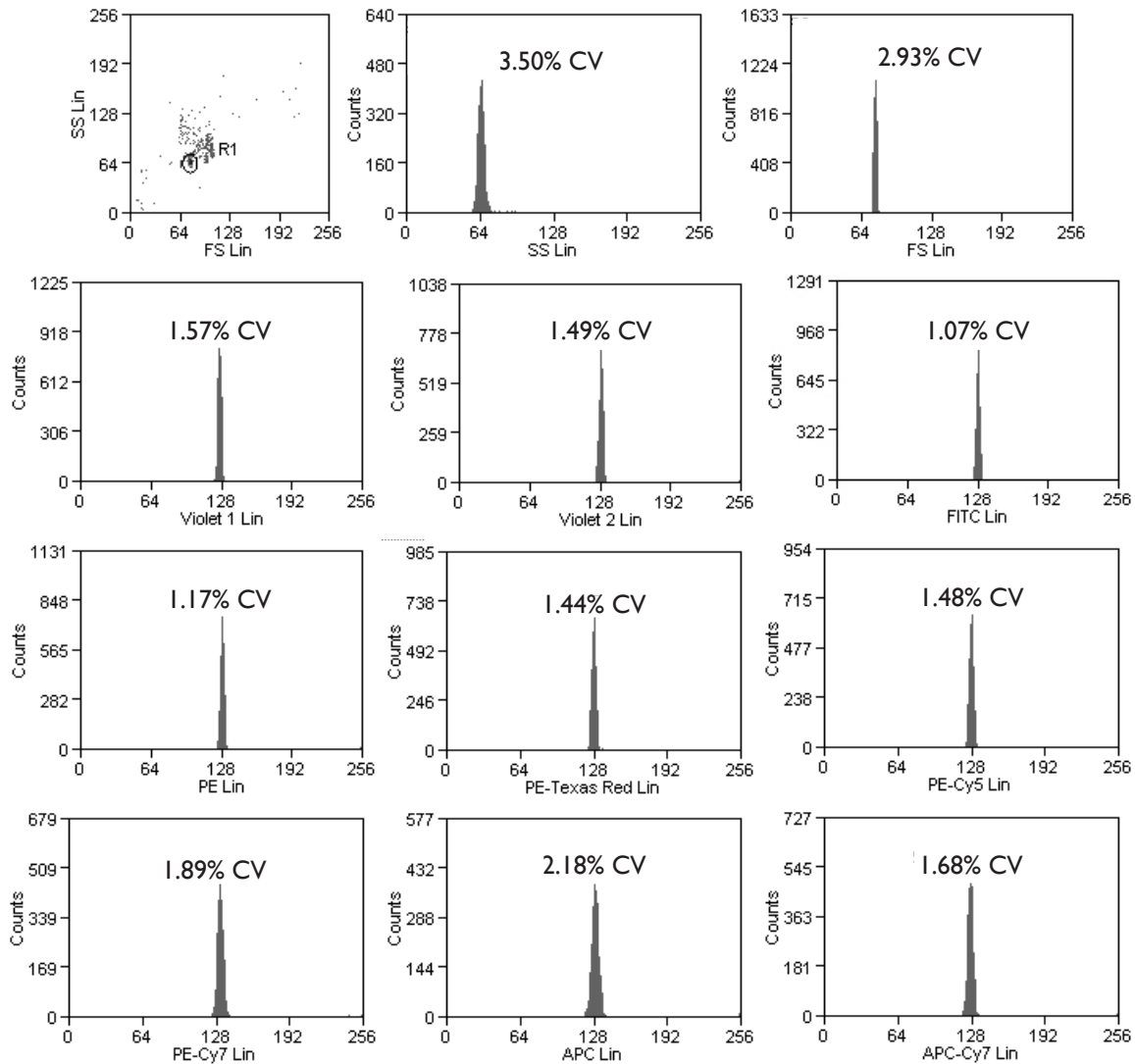
Histograms of URFP-10-5 on a BD Fortessa™ X-20

SPHERO™ Ultra Rainbow Fluorescent Particles for Beckman Coulter Cytometers

- Consists of a single peak for performance verification of Beckman Coulter flow cytometers
- Determines cleanliness of the flow cell and fluidics

Particle Type and Surface	Size, μm	Catalog No.	Unit
Calibration Beads for MoFlo™ Astrios™, $10^7/\text{mL}$	3.0-3.4	C62930	2 mL
Calibration Beads for MoFlo™, MoFlo™ XDP, and CyAn™ ADP, $10^7/\text{mL}$	3.0-3.4	B28479	2 mL
AccuCount Ultra Rainbow Fluorescent Particles (Calibration Beads for Aquios CL™, $10^6/\text{mL}$)	3.8 (+/-0.3)	ACURFP-38-5	5 mL
AccuCount Ultra Rainbow Fluorescent Particles (Calibration Beads for Aquios CL™, $10^6/\text{mL}$)	3.8 (+/-0.3)	ACURFP-38-15	15 mL

Flow Cytometry
Alignment Particle



Dot plot and histograms of B28479 on a Beckman Coulter Cyan™ ADP