Cytek® FSP™ CompBeads

PRODUCT DETAILS	
Catalog Number:	B7-10011 (100 tests)
Reactivity:	Mouse, rat, hamster IgG and IgM
Volume Per Test:	1 drop / test. Each drop contains approximately $1x10^5$ beads.
Application:	Flow cytometry
Formulation:	FSP™ CompBeads are hydrogels that are suspended in an aqueous solution containing BSA (Origin USA) and packaged in a convenient dropper bottle. The suspension contains approximately equal amounts of positive and negative FSP™ CompBeads.
Storage:	2-8°C **Do not freeze**

PRODUCT DESCRIPTION

FSP™ CompBeads are state-of-the-art hydrogels that match the scatter of lymphocyte populations, capture mouse, rat, and hamster immunoglobulins, and mimic the fluorescence spectra of stained cells when stained with fluorescent conjugated antibodies.

APPLICATION

Fluorescent conjugated antibody stained FSP™ CompBeads are intended as reference controls to match the spectral signature of single staining of real cells. Staining the capture beads yields distinct positive and negative (background fluorescence) fluorescence populations that can be used in calculating spill over matrix for unmix in spectral flow cytometer. For best results, it is recommended to carry an unstained FSP™ CompBeads tube to serve as negative in spillover calculation.

RECOMMENDED USAGE

1. Vortex bottle on high for 2 - 3 seconds to resuspend hydrogel beads.
2. Add 1 drop of capture beads into the bottom of the test tube or FACS tube.
3. Add an appropriate amount of detection antibody to the mixture and vortex.

   Note: It is recommended to determine the titer of the detection antibody that works best for the application.

   Note: It is recommended to use an unstained FSP™ CompBeads tube to serve as negative in spillover calculation.
4. Incubate at room temperature for 15 - 30 minutes, protected from light.
5. Add 2 ml of 1X PBS containing 1%BSA to the tube.

   Note: Staining buffer containing BSA or FBS protein can also be used for washing.

Cytek Biosciences Inc. I 47215 Lakeview Boulevard, Fremont, CA 94538
Phone: +1 (510) 657-0102 I Fax: +1 (510) 657-0151 I cytekbio@cytekbio.com I www.cytekbio.com

6. Centrifuge the tube for 6 minutes at 600 g and immediately aspirate the supernatant to minimize the bead loss, being careful not to disturb the bead pellet.

   Note: For best signal to noise results, use a vacuum aspirator and aspirate off as much of the supernatant as possible. Alternatively, perform two washes by repeating steps 5 and 6 leaving approximately 50µl of supernatant in the tube each time.

   Note: If a separate unstained FSP™ CompBeads tube is used as negative beads control, only one wash is needed.

7. Resuspend the bead pellet in 1X PBS at preferred volume.

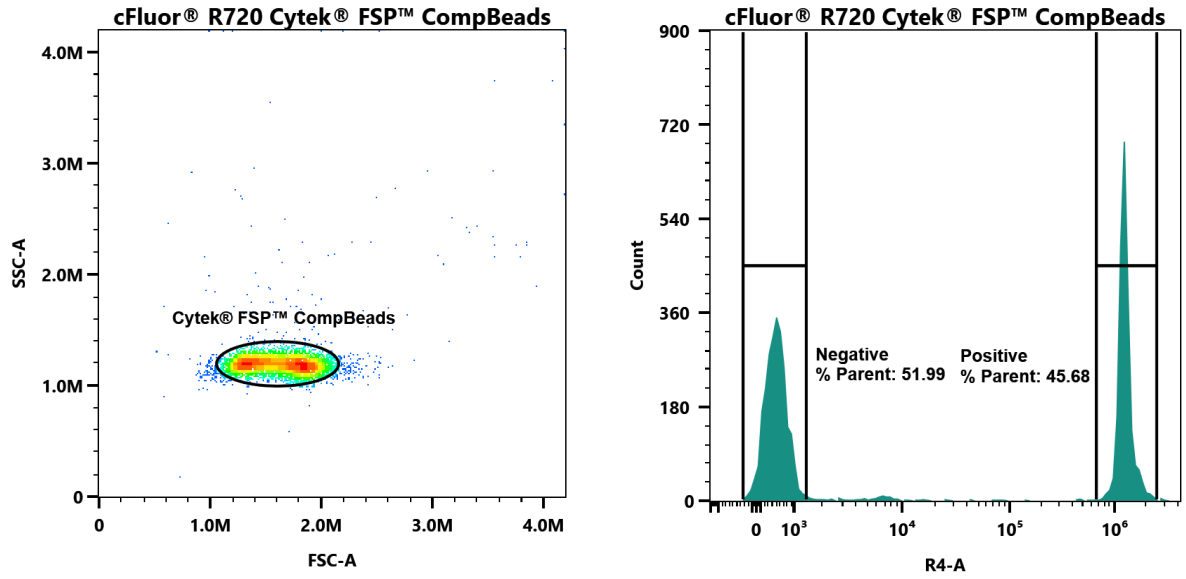
   Note: Protect the samples from light and analyze the samples as soon as possible.

8. View and acquire FSP™ CompBeads in FSC-A and SSC-A using the same instrument settings used for actual blood cells. Gate on the bead population.

Use appropriate personal protective equipment per the product safety data sheet when using this product.

PRODUCT DATA

Figure 1. Gating and detection of FSP™ CompBeads



A. Gate on scatter population of FSP™ CompBeads.

B. Histogram plot for FSP™ CompBeads stained with cFluor® R720 anti-human CD4, showing the positive and negative peaks.

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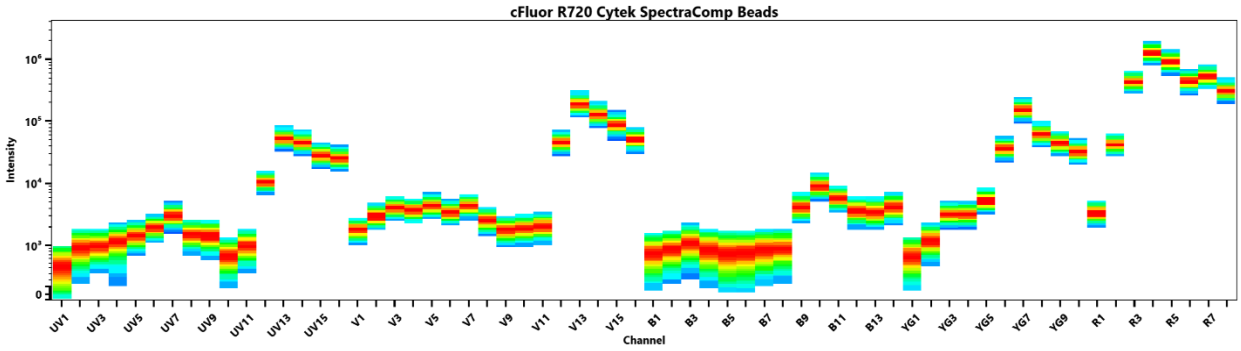

Spectral signature of cFluor® R720 from a Cytek® Aurora 5 laser system equipped with 355nm, 405nm, 488nm, 561nm and 640nm lasers using CytekAssaySettings.

For Research Use Only. Not intended for use in diagnostic procedures.

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