

Cytek® Universal CompBeads

PRODUCT DETAILS	
Catalog Number:	B7-10013 (100 tests)
Reactivity:	Mouse, rat, hamster, human, rabbit IgG and IgM
Volume Per Test:	1 drop / test. Each drop contains approximately 1×10^5 beads.
Application:	Flow cytometry
Storage:	2-8°C Do not freeze

PRODUCT DESCRIPTION

Cytek® Universal CompBeads are for use in flow cytometry. Fluorochrome-conjugated antibody binds the spherical particles for use as single-color compensation controls. They bind with mouse, rat and hamster antibodies, but also bind with rabbit and recombinant human antibodies.

APPLICATION

Each drop of beads contains two populations: a positive population that bind with any mouse, rat, hamster, rabbit or recombinant human antibody and a negative population that will not bind with antibody. When a fluorochrome-conjugated antibody is added to the beads, both positive and negative populations are observed. This bimodal distribution can be used for single-color compensation controls to accurately setup instrumentation for multicolor flow cytometry experiments.

RECOMMENDED USAGE

1. Label tubes: Label a tube for each antibody conjugate to be used in the experiment.
2. Mix beads: Mix the CompBeads by vigorously inverting at least 10 times or by pulse vortexing.
3. Add beads: Add 1 drop of CompBeads to each tube (there is no need to add staining buffer).
4. Add Antibody Conjugate: Add 1 test antibody conjugate to each tube.

Note: A test is defined as the amount (μg) of antibody that will stain a cell sample in a final volume of 100 μL . If high background is observed on the negative bead population, use 0.125 μg or less antibody. It is not necessary to use the antibody at its optimal concentration. For most antibodies, appropriate compensation or unmixing values result when 0.03–1.0 μg of antibody is used in the test.

5. Mix the tube well by flicking or pulse-vortexing.
6. Incubate: Incubate at 2–8°C for 15–30 minutes in the dark.
7. Wash: Add 2–3 mL of Flow Cytometry Staining Buffer to each tube, then centrifuge at $400\text{--}600 \times g$ for 3–5 minutes.
8. Decant the supernatant, then add 0.2–0.4 mL of Flow Cytometry Staining Buffer to each tube.

B9-50013; Rev A; Created Date: 07/28/2026

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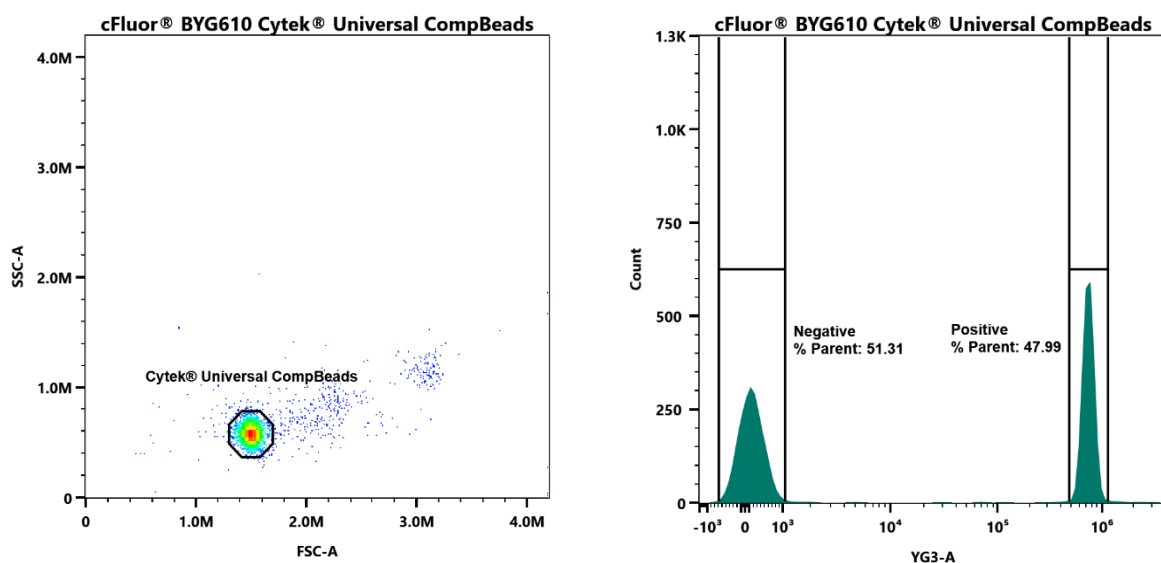
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9. Mix by flicking or pulse-vortexing before acquisition.

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

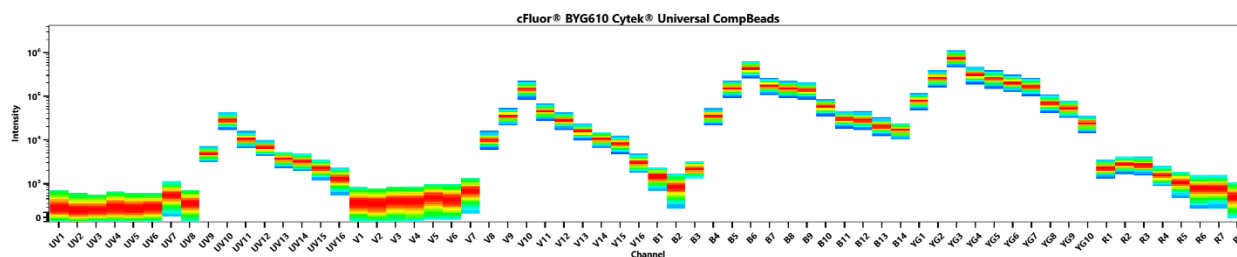
PRODUCT DATA

Figure 1. Gating and detection of Cytex® Universal CompBeads



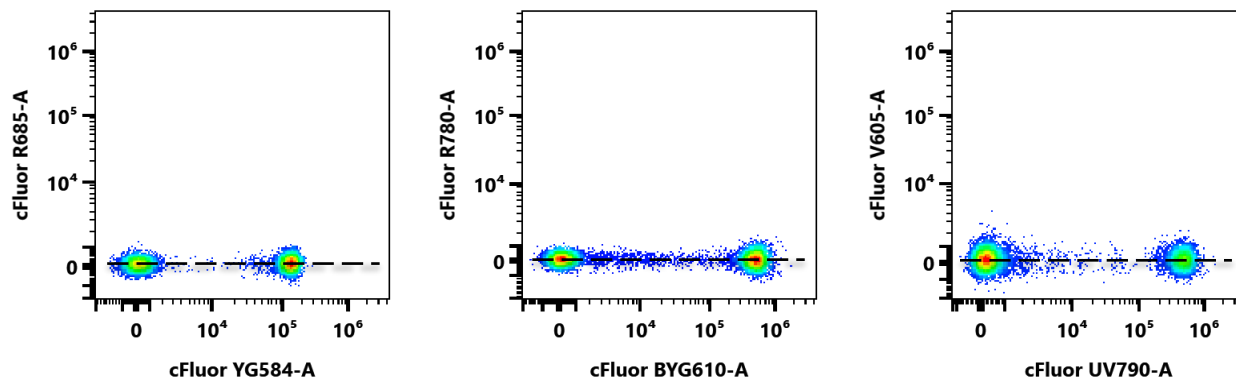
A. Gate on scatter population of Cytex® Universal CompBeads

B. Histogram plot for Cytex® Universal CompBeads stained with cFluor® BYG610 anti-human CD4, showing the positive and negative peaks.



Spectral signature of cFluor® BYG610 from a Cytex Aurora™ 5-laser system equipped with 355, 405, 488, 561, and 640 nm lasers using CytexAssaySetting.

Figure 2. Cytex® Universal CompBeads correctly unmix stained cells



Human peripheral blood was stained with Anti-Human CD4 antibodies and unmixed using Cytex® Universal CompBeads as single-color controls. A small molecule dye (left), a protein tandem dye (center), and a Nano particle dye (right) are used as an example to show correctly unmixed data. Data shown is gated on lymphocytes.

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