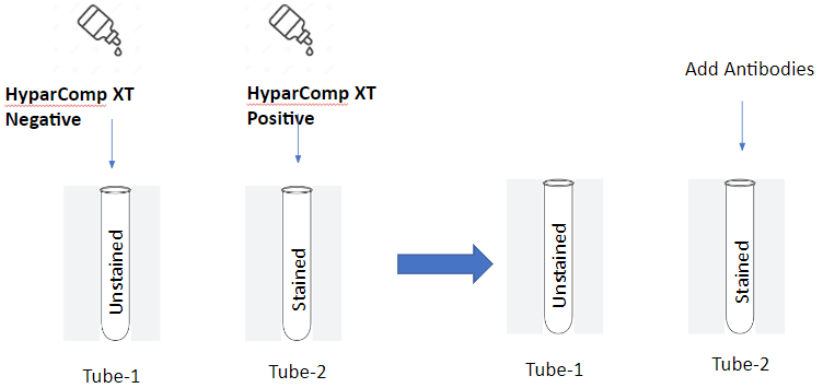
1. Technical Data Sheet

Summary	HyParComp™ XT compensation and unmixing controls are state-of-the-art cell mimics that capture multiple antibody host species (mouse anti-human, mouse, rat, hamster, rabbit and human), and mimic the fluorescence spectra of stained cells.
Application	HyParComp™ XT are intended as compensation and unmixing controls to match the single stained performance of real cells. Staining the cell mimics yields a positive fluorescence histogram that will aid in resolving the performance of the fluorophore; it will also serve as the basis for the positive signal of a given fluorophore for compensation and/or spectral unmixing. **For Research Use Only. Not for use in diagnostic or therapeutic procedures.**
Materials	HyParComp™ XT are cell mimics that are suspended in aqueous solution and are packaged in a convenient dropper bottle. Each drop contains approximately 1 x 10^5 cell mimics.
Handling and Safety	No special handling or safety precautions are necessary. See the Safety Data Sheet (SDS) at www.slingshotbio.com.
Storage	HyParComp™ XT should be stored at 2 - 8 °C once the product is received.
Expiration	One year from the date of manufacturing.
Storage **Expiration** **Instructions for Use** **QC Data**	1. Turn on the flow cytometer and allow it to warm up 30 minutes prior to acquisition of samples and controls. 2. Remove the Negative and Positive HyParComp™ XT vials from the box. 3. Vortex the vials on high for 2 - 3 seconds to resuspend cell mimics. 4. Unscrew the caps on the vials. 5. Add 1 drop of the HyParComp XT Negative cell mimics into the bottom of a test tube or well of a plate for the unstained negative control. (1 drop contains approximately 1 x10^5 cell mimics). 6. Add 1 drop of the HyParComp XT Positive cell mimics into the bottom of a separate test tube or well of a plate for each fluorophore you will have in the experiment. (1 drop contains approximately 1 x10^5 cell mimics).

7. See the illustration below as an example.



8. Add your pre-titrated antibody to the HyParComp™ XT Positive cell mimics and vortex. Note: It is recommended to pre-determine the appropriate titer of the antibody that works best for the application. **DO NOT add antibody to the unstained tube**.
9. Use the same treatment of HyParComp™ XT as you would with cells (i.e. if you are permeabilizing and fixing your cells, you should treat the HyParComp™ XT exactly the same)
10. Incubate for 15 - 30 minutes, **protected from light**.
11. Add 2 ml of 1X PBS containing 0.2% BSA (Bovine Serum Albumin) to the tube. Note: Staining buffer containing BSA or FBS (Fetal Bovine Serum) can also be used for washing.
12. Centrifuge the tube for 5 minutes at 600 g. Immediately aspirate the supernatant to minimize the cell mimic loss, being careful not to disturb the cell mimic pellet.
13. Resuspend the cell mimic pellet in 1X PBS at 200uL or preferred volume. Note: Protect the samples from light and analyze the samples as soon as possible.
14. View and acquire the HyParComp™ XT cell mimics on Forward and Side Scatter parameters (FSC-A and SSC-A) using the **same** instrument settings used for actual cells.
15. For each positively stained sample, create a gate on the cell mimic population along the forward and side scatter axes. Then create a gate on the cell mimic population in the histogram displaying the proper fluorescence channel for each fluorochrome used.
16. For the unstained negative sample, create a gate on the cell mimic population along the forward and side scatter axes. Apply the unstained cell mimic population as a universal negative in your compensation/unmixing matrix.

HyParComp™ XT Figure 1 (A, B, C)

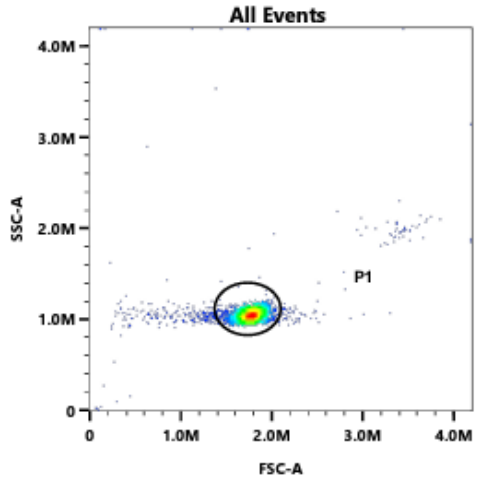


Figure 1. (A) Scatter population of HyParComp™ XT

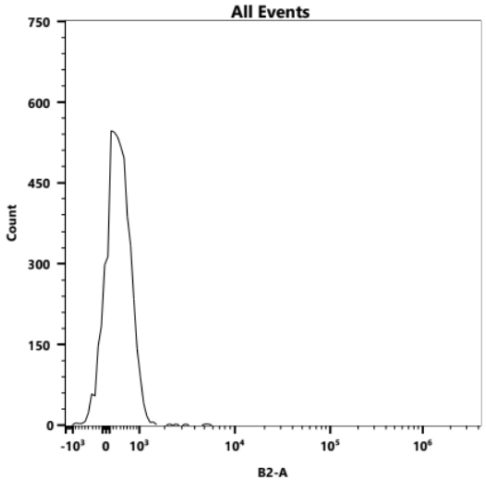


Figure 1. (B) Histogram plot of unstained Negative population of HyParComp™ XT

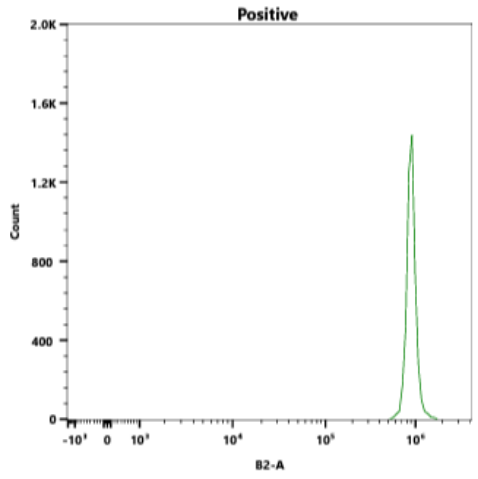


Figure 1. (C) Histogram plot of Positive HyParComp™ XT stained with a Human IgG1 FITC Isotype Control.