1. Technical Data Sheet

Summary	TruCytes^{TM} B-Cell CD19+ synthetic cells are lyophilized cell mimics that feature B-Cells CD45+ and CD19+ biomarkers with scatter coordinates (FSC and SSC) that match lymphocyte populations.
Application	TruCytes^{TM} B-Cell CD19+ is intended to provide positive and negative signal detection for specified surface biomarkers that are targeted by specific antibodies. The following list shows the sub populations of synthetic cells that comprise the B-Cells: • CD45+ • CD3- • CD19+ It is an ideal process control for assays that have measured readouts using flow cytometry. **For Research Use Only. Not for use in diagnostic or therapeutic procedures.**
Materials	TruCytes^{TM} are hydrogels that are lyophilized for stability and ease of use. Each bottle contains approximately 2.5x10^{5} particles.
Handling and Safety	TruCytes^{TM} B-Cell CD19+ contains no bio-hazardous material so it is safe to use in any environment and requires no special disposal. See SDS at www.slingshotbio.com.

Instructions for Use	1. Tap down the vial to ensure that all lyophilizate is collected at the bottom of the vial. 2. Add 250 uL of PBS buffer. Make sure to not contact/disturb the lyophilizate with your pipette until the pellet has been soaked in the buffer. Gently pipette up and down to mix and ensure that all contents are fully dissolved before proceeding. Take the appropriate amount of reconstituted material out for each test. 3. Add an appropriate amount of staining antibody (typically 5 uL standard test). Vortex mixture on high for 2 seconds to mix thoroughly. 4. Incubate the mixture at RT in the dark for 15 - 30 min. 5. Add 1 mL of 1X PBS to the tube, vortex, then transfer the reconstituted mixture to an appropriate tube. 6. Centrifuge tube at 500 rcf for 5 min. 7. Carefully pipette off the liquid without disturbing the pellet of particles. 8. Repeat Steps 5 - 7 to wash the particles again. Recommended: Perform 3 total washes to prevent non-specific binding. 9. Add 100 uL of 1X PBS or staining buffer to the tube. 10. View and acquire particles on FSC-A and SSC-A using the same instrument settings as real whole blood cells. 11. For best results, set the flow rate on the cytometer to low.
Storage	Store lyophilized products at -20 °C upon receipt. Upon reconstitution, products should be used within seven (7) days when stored at 2 - 8 °C
Expiration	One year from the date of manufacturing.
QC Data	**Figure 1. Scattergram and Gating for B-Cells.** The following scattergrams show the gating strategy for proper detection of B-Cell subset populations.