1. Technical Data Sheet

<table>
<tr><td>Summary</td><td>TruCytes™ CD45(+), CD3(+), CD4(+), CD8(+), CD19(+), CD14(+), CD16(+), CD56(+) are lyophilized cell mimics to simulate TBNK phenotypes. They are formulated to work with lyse-wash, and lyse-no wash conditions.</td></tr>
<tr><td>Application</td><td>This product is intended to provide positive signals for specified biomarkers in the table below:
<table>
<tr><th>Antibodies</th><th colspan="3">Tested Clones</th></tr>
<tr><td>CD45</td><td>2D1</td><td>MEM-28</td><td>HI30</td></tr>
<tr><td>CD3</td><td>SK7</td><td>*OKT3</td><td>UCH-T1</td></tr>
<tr><td>CD4</td><td>SK3</td><td>OKT4</td><td>RPA-T4</td></tr>
<tr><td>CD8</td><td>SK1</td><td>HI8a</td><td>RPA-T8</td></tr>
<tr><td>CD19</td><td>SJ35C1</td><td>4G7</td><td>HIB19</td></tr>
<tr><td>CD16</td><td>B73.1</td><td>3G8</td><td>CB16</td></tr>
<tr><td>CD56</td><td>NCAM-16</td><td>MEM-188</td><td>MY31</td></tr>
<tr><td>CD14</td><td>M5E2</td><td>61D3</td><td>HCD14</td></tr>
<tr><td colspan="4">* Very low to no signal. We do not recommend using this clone for this product</td></tr>
</table>
NOTE: Antibody clones not listed above need to be empirically tested to determine compatibility. It is highly recommended to titrate all antibodies in order to achieve the best results.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.</td></tr>
<tr><td>Materials</td><td>This product is lyophilized for stability and ease of use. Each vial contains approximately 2.5x10^5 cell mimics.</td></tr>
<tr><td>Handling and Safety</td><td>No special handling or safety precautions are necessary. See Safety Data Sheet (SDS) at www.slingshotbio.com.</td></tr>
<tr><td>Storage</td><td>Store lyophilized products at -20°C upon receipt. Use immediately upon reconstitution.</td></tr>
<tr><td>Expiration</td><td>One year from the date of manufacturing.</td></tr>
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Instructions for Use	1. Tap down the vial to ensure that all cell mimics are collected at the bottom of the vial. 2. Add 250 µL of 1x PBS buffer to the vial. Make sure to avoid contacting or disturbing the pellet until it has been rehydrated. Gently pipette up and down to resuspend the cell mimics. Transfer the content to an Eppendorf or FACS tube (other vessels such as plates can be used as well, and the volume can be adjusted accordingly). 3. Add 1mL of PBS to the original glass vial, mix, and transfer the remaining of the mimics to the tube prepared in the previous step for a final volume of 1.25 mL. Another 1 mL of 1x PBS can be added at this stage if the vessel is a FACS tube for a final volume of 2.25 mL. Centrifuge at appropriate speed (16000 x g for 2 minutes or 5000 x g for 5 minutes), remove the supernatant without disturbing the cell pellet. **Note**: Washing with 2 mL of 1X PBS before staining is recommended to reduce non-specific binding. 4. Add an appropriate amount of your staining antibody cocktail and mix well by vortexing. **Note**: Titrate antibodies on cells prior to making antibody cocktail for best results. 5. Incubate the mixture at RT in the dark for 10-15 min. 6. Add 2 mL of staining buffer for FACS tubes, or 200 µL if staining in wells (adjust according to the utilized vessel), vortex or mix, and spin down at 5000 x g for 5 minutes. If the staining is performed parallel to cells, the samples can be centrifuged at 400 x g for 5 minutes. Aspirate the supernatant without disturbing the pellet. **Note**: For best results, stain in FACS tubes to ensure sufficient washing 7. Repeat the previous step x1. **Note**: For best results, two to three washes are recommended. 8. Add desired volume of running or staining buffer to the FACS tube (or other utilized vessels). 9. Acquire cell mimics using the same instrument settings as leukocytes.
QC Data	

Figure 1. Scatter plot and gating. The following shows the gating strategy for proper detection of subset populations. Image resolution is not looking good