

# 1. Technical Data Sheet

<b>Summary</b>	ViaComp® viability controls are advanced 2-in-1 hydrogel beads that bind to both DNA intercalating dyes and amine-reactive viability dyes to simulate the viability staining of cells.
<b>Application</b>	ViaComp® is intended as compensation and assay controls to match the viability staining of real cells. The combination of positive and negative binding beads yields positive and negative fluorescence peaks that will aid in identifying the live and dead cell populations.
<b>Materials</b>	ViaComp® viability controls are hydrogels that are suspended in aqueous solution and are packaged in a convenient dropper bottle. Each drop contains approximately $6.6 \times 10^4$ beads.
<b>Handling and Safety</b>	No special handling or safety precautions are necessary. See SDS at <a href="http://www.slingshotbio.com">www.slingshotbio.com</a> .
<b>Instructions for Use</b>	<p><b>Staining with DNA dyes</b></p> <ol style="list-style-type: none"> <li>Vortex bottle on high for 2-3 seconds to resuspend hydrogel beads.</li> <li>Add 1 drop of beads into a tube containing <b>100 µL</b> of 1X PBS.</li> <li>Add appropriate amounts of DNA dye. <b>Note: It is recommended to determine the titer of the viability dye that works best for your application.</b></li> <li>Incubate at room temperature for 10 - 30 min on a mixer.</li> <li>Add 2 ml of 1X PBS with 1% BSA.</li> <li>Centrifuge the tube for 5 - 6 min. at 500 rcf and aspirate off the liquid, leaving 50 ul in order to minimize the bead loss. Be careful to not disturb the bead pellet.</li> <li>Resuspend the beads in 150 µL of 1X PBS.</li> <li>View and acquire ViaComp in FSC-A and SSC-A using the same instrument settings as real whole blood cells. Gate on the bead population.</li> <li>Set up a gate for the appropriate fluorochrome channel to detect positive signals.</li> <li>For best resolution, set the flow rate on the cytometer to low.</li> </ol> <p><b>Staining with Amine-reactive dyes</b></p> <ol style="list-style-type: none"> <li>Vortex bottle on high for 2-3 seconds to resuspend hydrogel beads.</li> <li>Add 1 drop of beads into a tube.</li> <li>Add appropriate amounts of amine-reactive dye. <b>Note: It is recommended to determine the titer of the viability dye that works best for your application.</b></li> <li>Incubate at room temperature for at least 30 min on a mixer.</li> </ol>

	<ol style="list-style-type: none"> <li>5. Wash by resuspending the bead pellet in 2 ml of 1X PBS and then vortex. Note: It is recommended to cap the tube while vortexing.</li> <li>6. Centrifuge the tube for 5 - 6 min. at 500 rcf and aspirate off the liquid, leaving 50 ul in order to minimize the bead loss. Be careful to not disturb the bead pellet.</li> <li>7. Repeat steps 5 and 6 for one additional wash.</li> <li>8. Resuspend the beads in 150 µL of 1X PBS.</li> <li>9. View and acquire ViaComp in FSC-A and SSC-A using the same instrument settings as real whole blood cells. Gate on the bead population.</li> <li>10. Set up a gate for the appropriate fluorochrome channel to detect positive signals.</li> <li>11. For best resolution, set the flow rate on the cytometer to low.</li> </ol>
<b>Storage</b>	ViaComp® should be stored at -20 °C once the product is received. <b>24 hours before its intended use</b> , store it at 2-8 °C to thaw. Once thawed, store at 2-8 °C.
<b>Expiration</b>	One year from the date of manufacturing. (DOM); <b>Shelf life:</b> Six months from the date of thaw. * *Follow the Expiration date if it is shorter
<b>QC Data</b>	N/A