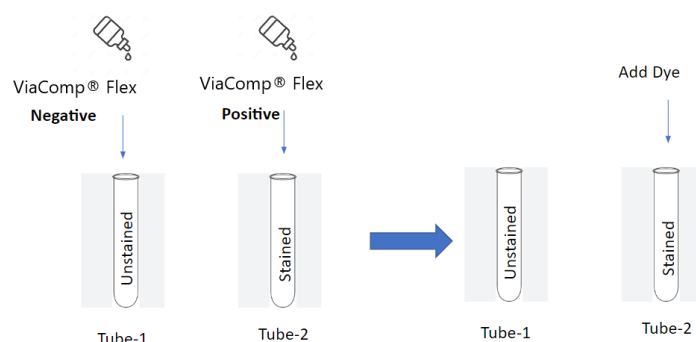


# 1. Technical Data Sheet

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Summary</b>              | ViaComp® Flex controls consist of separate positive and negative cell mimics. Positive cell mimics bind to both DNA-intercalating as well as amine-reactive viability dyes to simulate the viability characteristics of the cells. Negative cell mimics are designed to be acquired separately to maximize signal-to-noise ratio.                                                                                                                                                                                                                                       |
| <b>Application</b>          | <p>ViaComp® Flex is intended to be used as single-stain and assay controls to simulate the viability characteristics of the cells. The positive and negative peaks can aid in identifying live and dead cell populations.</p> <p>Note: ViaComp® Flex performance has been verified and validated on analytical flow cytometers and not on cell sorters.</p> <p><b>For Research Use Only. Not for use in diagnostic or therapeutic procedures.</b></p>                                                                                                                   |
| <b>Materials</b>            | ViaComp® Flex viability controls are cell mimics suspended in aqueous solution and are packaged in a convenient dropper bottle. Each drop contains approximately $6.6 \times 10^4$ cell mimics.                                                                                                                                                                                                                                                                                                                                                                         |
| <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>Storage</b>              | <p>ViaComp® Flex should be stored at -20 °C once the product is received.</p> <p><b>24 hours before its intended use</b>, store it at 2-8 °C to thaw.</p> <p>Once thawed, store at 2-8 °C.</p>                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Expiration</b>           | <p>24 months from the date of manufacturing (DOM);</p> <p><b>Shelf life:</b> Six months from the date of thaw.*</p> <p>*Follow the Expiration date if it occurs before shelf life expiration</p>                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Instructions for Use</b> | <p><b>Staining with DNA dyes</b></p> <ol style="list-style-type: none"> <li>1. Allow ViaComp® Flex bottles to warm up to room temperature before staining.</li> <li>2. Vortex the ViaComp® Flex bottles on high for 2-3 seconds to resuspend the cell mimics.</li> <li>3. Add 1 drop of positive cell mimics to a tube and 1 drop of negative mimics to a separate tube. Ensure that each drop goes to the bottom of the respective tube. Add 1x PBS according to desired dilution for DNA-binding dye.</li> <li>4. See the illustration below as an example</li> </ol> |



5. Add desired amounts of DNA dye to the positive tube.

**Note: It is recommended to determine the titer of the viability dye that works best for your application.**

6. Incubate at room temperature for 10-30 min, protected from light

**Note: Refer to the specific vendor's instructions for the incubation time if different.**

7. Centrifuge the tube for 5-6 minutes at 500 x g. Remove excess supernatant without disturbing the bead pellet.
8. Wash by resuspending the bead pellet in 2 ml of 1% BSA in 1x PBS or desired staining buffer and then vortex.
9. Repeat steps 6 and 7 to wash particles thoroughly. Resuspend the cell mimics in desired volume of staining buffer.
10. View and acquire positive and negative ViaComp® Flex particles using the same FSC and SSC settings as leukocytes.
11. For best resolution, use a low flow rate on your cytometer.

### Staining with Amine-reactive dyes

1. Allow ViaComp® Flex bottles to warm up to room temperature before staining.
2. Vortex the ViaComp® Flex bottles on high for 2-3 seconds to resuspend the cell mimics in the buffer.
3. Add 1 drop of positive cell mimics to a tube and 1 drop of negative mimics to another tube. Ensure that each drop goes to the bottom of the respective tube. Add 1x PBS according to desired dilution for amine-reactive dye.
4. Add desired amount of amine-reactive dye to the positive tube.

**Note: It is recommended to determine the titer of the viability dye that works best for your application.**

5. Incubate at room temperature for 20-30 min protected from light.

**Note: Refer to the specific vendor's instructions for the incubation time if different.**

6. Centrifuge the tube for 5-6 min at 500 x g. Remove excess supernatant without disturbing the bead pellet.

7. Wash by resuspending the bead pellet in 2 ml of 1X PBS with 1% BSA or desired stain buffer and then vortex.

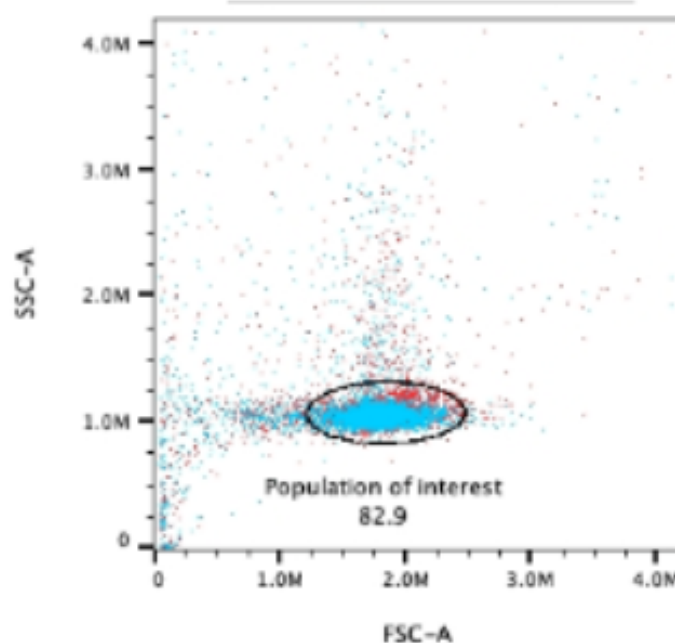
8. Repeat steps 6 and 7 to wash particles thoroughly. Resuspend the cell mimics in desired volume of staining buffer.

9. View and acquire positive and negative ViaComp® Flex particles using the same FSC and SSC settings as leukocytes.

10. For best resolution, use a low flow rate on your cytometer.

#### QC Data

Overlay of Positive and Negative Cell Mimics



Example scatter profile for positive and negative ViaComp® Flex populations

