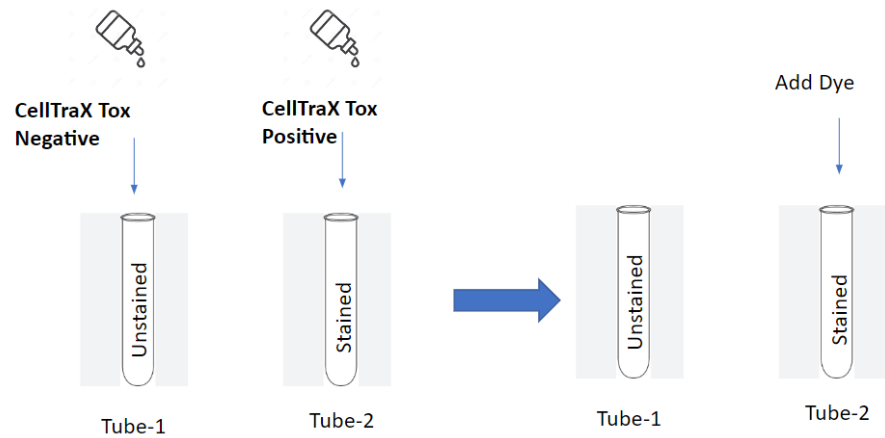


# 1. Technical Data Sheet

<b>Summary</b>	CellTraX Tox 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>	CellTraX Tox 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.
<b>Materials</b>	CellTraX Tox 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>	CellTraX Tox 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 occurs before shelf life expiration
<b>Instructions for Use</b>	<p><b>Staining with DNA dyes</b></p> <ol style="list-style-type: none"> <li>1. Allow CellTraX Tox bottles to warm up to room temperature before staining.</li> <li>2. Vortex the CellTraX Tox 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> </ol>

4. See the illustration below as an example



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 CellTraX Tox 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 CellTraX Tox bottles to warm up to room temperature before staining.

2. Vortex the CellTraX Tox 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.

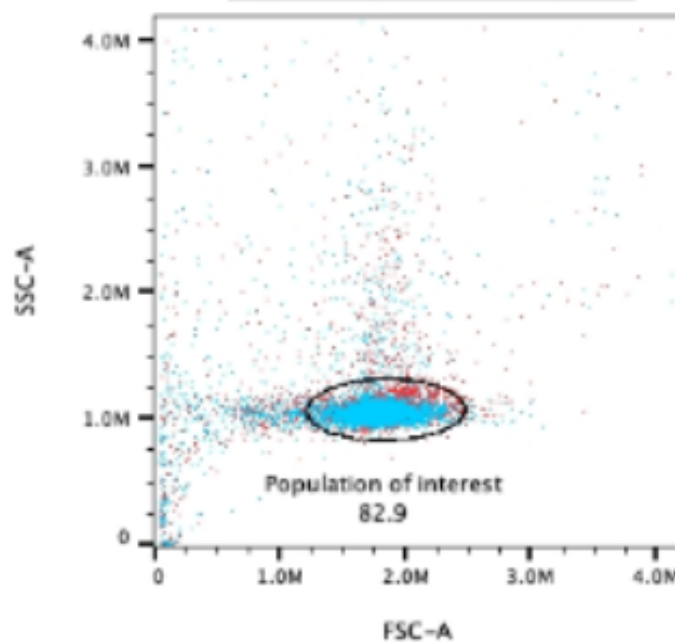
8. Repeat steps 6 and 7 to wash particles thoroughly. Resuspend the cell mimics in desired volume of staining buffer.

9. View and acquire positive and negative CellTraX Tox particles using the same FSC and SSC settings as leukocytes.

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

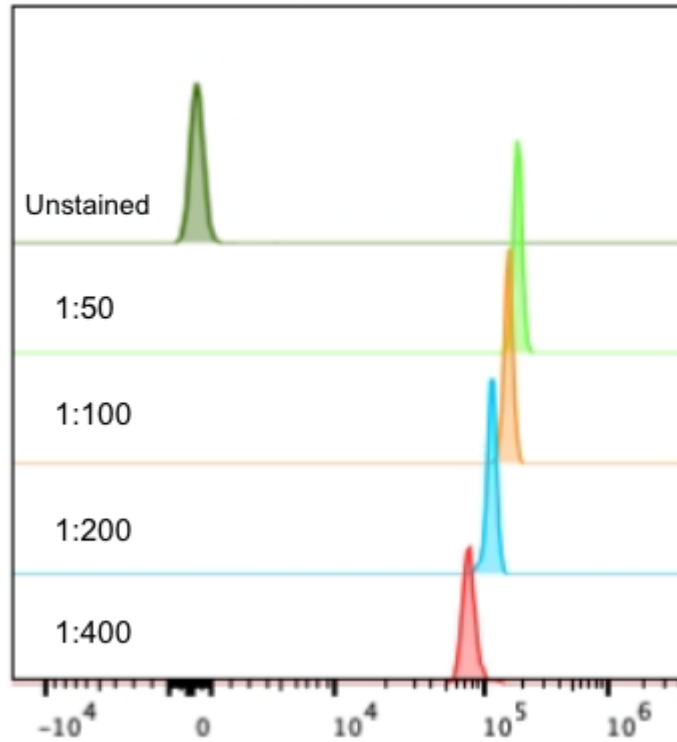
QC Data

Overlay of Positive and Negative Cell Mimics



Example scatter profile for positive and negative CellTraX Tox populations

# 7-AAD



Example titration data using 7-AAD

