



Quick Reference Card

Muse™ MitoPotential Kit MCH100110

To determine the percentages of cells exhibiting a change in mitochondrial depolarization and cell death

For Research Use Only; not for use in diagnostic procedures.

Storage Conditions

Store the Muse™ MitoPotential Dye at -20°C . Store the Muse™ MitoPotential 7-AAD Reagent and 1X Assay Buffer at 2 to 8°C .

Kit Components

- Muse™ MitoPotential Dye (Part No. 4700-1580, 100 tests/vial)
- Muse™ MitoPotential 7-AAD (Part No. 4700-1585, 100 tests/vial)
- 1X Assay Buffer (Part No. 4700-1330, 100 tests/vial)

Materials Recommended

- Muse™ Cell Analyzer
- Cell suspension, untreated and treated to undergo apoptosis
- Micropipettors
- Disposable micropipettor tips
- Microcentrifuge tubes with screw caps, 1.5 mL (VWR Catalog No. 16466-030, or equivalent)
- Vortex mixer

Assay Protocol

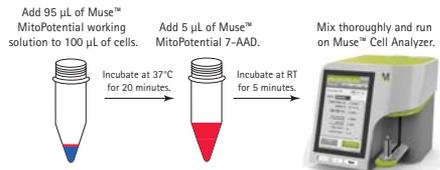
Culture cells, including positive and negative controls, by desired method.



Prepare Muse™ MitoPotential working solution by diluting the dye 1:1000 with 1X Assay Buffer.



Prepare cell samples for incubation with Muse™ MitoPotential working solution.



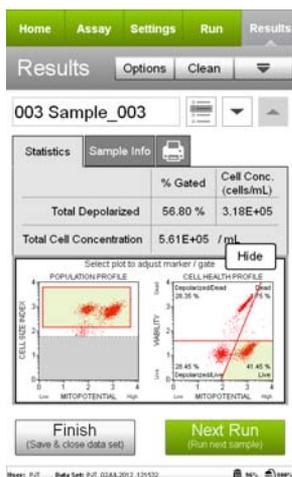
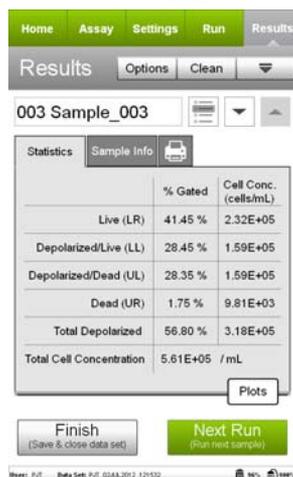
NOTE: A detailed kit user's guide can be found at www.millipore.com/muse.

Expected Results

Figures A and B show an example of results obtained using the Muse™ MitoPotential Kit to stain Jurkat cells treated with staurosporine to induce depolarization.

Events in each of the four quadrants are as follows:

- Lower-left quadrant: live cells with depolarized mitochondrial membrane [MitoPotential (-) and 7-AAD (-)]
- Lower-right quadrant: live cells with intact mitochondrial membrane [MitoPotential (+) and 7-AAD (-)]
- Upper-right quadrant: dead cells with depolarized mitochondrial membrane [MitoPotential (+) and 7-AAD (+)]
- Upper-left quadrant: dead cells with intact mitochondrial membrane [MitoPotential (-) and 7-AAD (+)]



Figures A and B. Example data – Results obtained with the Muse™ MitoPotential software module for Jurkat cells stained with the Muse™ MitoPotential Kit and acquired on the Muse™ Cell Analyzer. Figure A shows results without dot plots, while Figure B shows results with optional dot plots. The statistics show the cells/mL in the stained cell sample and the percentages of each population. The first plot in Figure B shows MitoPotential vs Cell Size and the second plot shows Viability vs MitoPotential, providing data on four cell populations – Live, Depolarized/Live, Depolarized/Dead, and Dead cells.

The latest version of Muse™ software, which includes all assay modules, as well as the kit user's guide, can be found at www.millipore.com/muse.

Related Products

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- Muse™ System Check Kit – MCH100101
- Muse™ Count & Viability Kit (100T) – MCH100102
- Muse™ Count & Viability Kit (600T) – MCH600103
- Muse™ Count & Viability Kit (200X) – MCH100104
- Muse™ Annexin & Dead Cell Kit – MCH100105
- Muse™ Cell Cycle Kit – MCH100106
- Muse™ Cell Dispersal Reagent – MCH100107
- Muse™ Caspase-3/7 Kit – MCH100108
- Muse™ MultiCaspase Kit – MCH100109

