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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

- Guava® 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.

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

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Prepare cell samples for incubation with Muse MitoPotential working solution.

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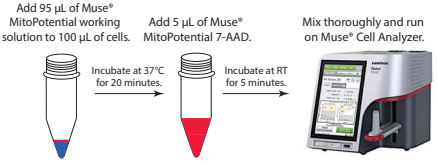


The latest version of Muse software, which includes all assay modules, as well as the kit user's guide, can be found at *www.luminexcorp.com/flowkits*.

Expected Results

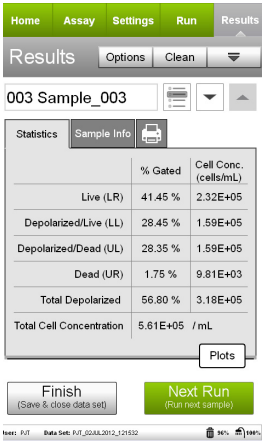
Figures A and B show an example of results obtained using the Muse® MitoPotential Kit to stain Jurkat cells treated with staurosporine to induce depolarization.

Events in each of the four quadrants are as follows:

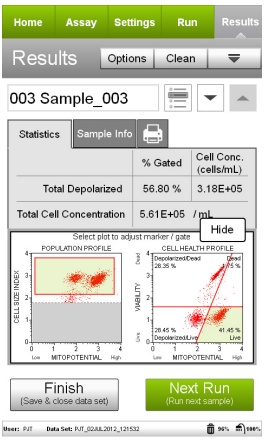
- Lower-left quadrant: live cells with depolarized mitochondrial membrane
- [MitoPotential (–) and 7-AAD (–)]
- Lower-right quadrant: live cells with intact mitochondrial membrane [MitoPotential (+) and 7-AAD (–)]
- Upper-right quadrant: dead cells with depolarized mitochondrial membrane [MitoPotential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

Figures A and B display example data – results obtained with the Muse MitoPotential software module for Jurkat cells stained with the Muse MitoPotential Kit and acquired on the Guava® 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.

Figures A and B



A



B

Related Products

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Muse® System Check Kit – MCH100101

Muse® Count & Viability Kit – MCH100102

Muse® Count & Viability Kit – 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

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