Luminex®

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Quick Reference Card

Muse® Oxidative Stress Kit MCH100111

For the detection of reactive oxygen species (ROS), namely superoxide, in cellular populations

For Research Use Only. Not for use in diagnostic procedures.

Storage Conditions

Store the Muse® Oxidative Stress Reagent at –15° to –20°C, protected from light.

Store the 1X Assay Buffer at 2° to 8°C, protected from light.

Kit Components

- Muse® Oxidative Stress Reagent (Part No. 4700-1665, 100 tests/vial)
- 1X Assay Buffer (Part No. 4700-1330, 100 mL/vial)

Materials Recommended

- Guava® Muse® Cell Analyzer
- Cell suspension, untreated and treated
- Micropipettors
- Disposable micropipettor tips
- Microcentrifuge tubes with screw caps, 1.5 mL (VWR Catalog No. 16466-030, or equivalent)
- Muse Count & Viability CDR (Part No. 4700-0050), optional
- Vortex mixer

Assay Protocol

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

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Prepare cell samples in 1X Assay Buffer at 1 x 10^6 to 1 x 10^7 cells/mL for incubation with Muse® Oxidative Stress working solution.

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Dilute Muse Oxidative Stress Reagent 1:100 with 1X Assay Buffer to make intermediate solution.

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Dilute Muse Oxidative Stress intermediate solution 1:80 with 1X Assay Buffer to make Muse Oxidative Stress working solution.

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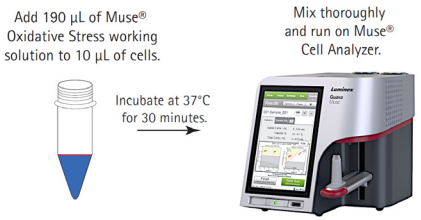


NOTE: A detailed kit user's guide can be found at *www.luminexcorp.com/flowkits* (search by Catalog No. MCH100111).

Expected Results

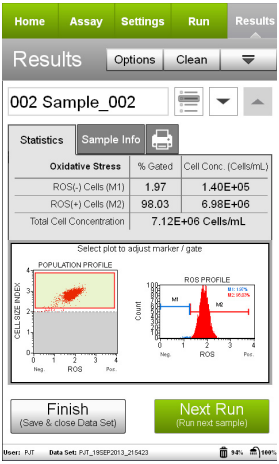
The figures below show an example of results using the Muse® Oxidative Stress Kit to stain 143B cells treated with Menadione to induce oxidative stress.

Events in each of the two markers are as follows:

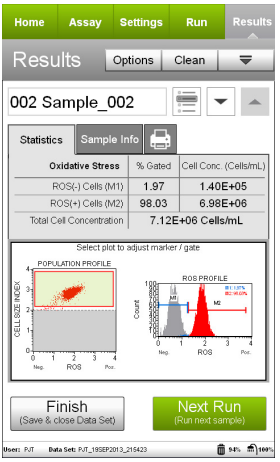
- M1: Negative cells (ROS–)
- M2: Cells with ROS activity (ROS+)

Figures A and B show results obtained from 143B cells treated with 200 µM Menadione for 3 hours and stained with the Muse® Oxidative Stress Kit, then acquired on the Guava® Muse Cell Analyzer. Figure A shows results without displaying an overlaid histogram, while Figure B shows the same results with a histogram overlay of the negative control. The statistics show the cells/mL in the stained cell sample and the percentages of each population. The dot plot shows ROS vs Cell Size and the histogram shows ROS staining.

Figures A and B



A



B

For more information, refer to the comprehensive user's guide, which can be found at *www.luminexcorp.com/flowkits* (search for Catalog Code MCH100111).

Related Products

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Muse® System Check Kit – MCH100101
Muse® Count & Viability Kit (100T) – MCH100102
Muse® Annexin V & Dead Cell Kit – MCH100105
Muse® Caspase-3/7 Kit – MCH100108
Muse® MultiCaspase Kit – MCH100109
Muse® MitoPotential Kit – MCH100110
Muse® Nitric Oxide Kit – MCH1001112
Muse® Ki67 Proliferation Kit – MCH100114

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