

Quick Reference Card

Muse® Caspase-3/7 Kit MCH100108

To determine the apoptotic percentages and concentrations of cellular samples

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

Storage Conditions

Store the Muse® Caspase-3/7 Kit at 2 to 8°C, protected from light.

Kit Components

- Muse® Caspase-3/7 Reagent (Part No. 4700-1505, 100 tests/vial)
- Muse Caspase 7-AAD (Part No. 4700-1510, 100 tests/vial)
- 1X Assay Buffer BA (Part No. 4700-1360, 100 tests/vial)
- 1X PBS (Part No. 4700-1515, 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

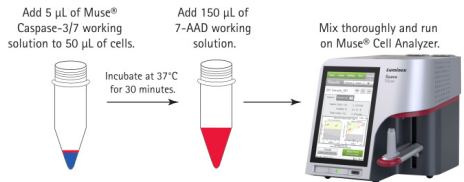
Assay Protocol

Culture cells, including positive and negative controls, for appropriate time to induce apoptosis.

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Prepare cell samples in 1X Assay Buffer BA for incubation with Muse® Caspase-3/7 working solution.

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Dilute Muse Caspase-3/7 Reagent 1:8 with 1X PBS to make working solution.

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Prepare Muse Caspase 7-AAD working solution by adding 2 µL of 7-AAD to 148 µL of 1X Assay Buffer BA.



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

Expected Results

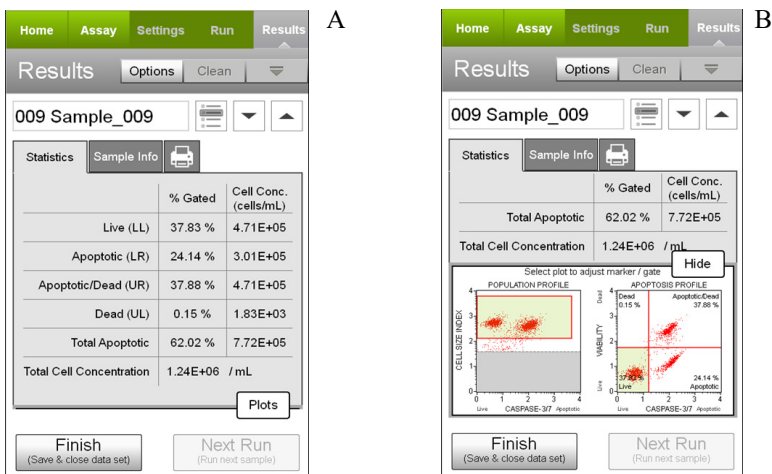
Figures A and B show an example of results obtained using the Muse® Caspase-3/7 Kit to stain Jurkat cells treated with staurosporine to induce apoptosis.

Events in each of the four quadrants are as follows:

- Lower-left quadrant: viable cells not undergoing detectable apoptosis [Caspase-3/7 (-) and Dead Cell Marker (-)]
- Lower-right quadrant: apoptotic cells exhibiting caspase-3/7 activity [Caspase-3/7 (+) and Dead Cell Marker (-)]
- Upper-right quadrant: cells in the late stages of apoptosis or dead by necrotic or apoptotic mechanisms [Caspase-3/7 (+) and Dead Cell Marker (+)]
- Upper-left quadrant: cells that have died, not through the apoptotic pathway [Caspase-3/7 (-) and Dead Cell Marker (+)]

In **Figures A and B**, results obtained with the Muse Caspase-3/7 software module for Jurkat cells stained with Muse Caspase-3/7 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 Caspase-3/7 vs. Cell Size and the second plot shows Viability vs. Caspase-3/7, providing data on four cell populations - Live, Apoptotic, Apoptotic/Dead, and Dead cells.

Figures A and B



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. **IMPORTANT: Please ensure you are using version 1.3, or later versions of the software, when running this assay.**

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® Cell Cycle Kit - MCH100106
- Muse® MultiCaspase Kit - MCH100109
- Muse® MitoPotential Kit - MCH100110

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