



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

- 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

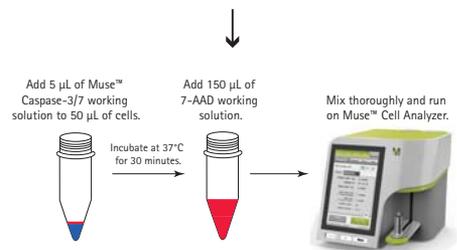
Assay Protocol

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.



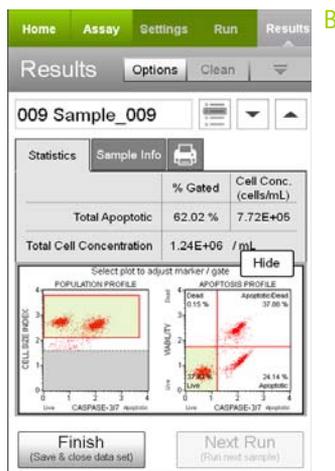
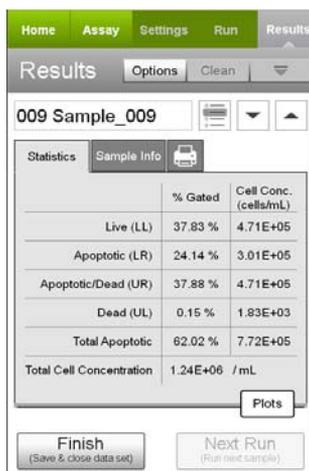
NOTE: A detailed kit user's guide can be found at www.millipore.com/muse.

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 (+)]



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 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.

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™ MultiCaspase Kit – MCH100109
- Muse™ MitoPotential Kit – MCH100110

