



Quick Reference Card

Muse™ MultiCaspase Kit MCH100109

To determine the percentages and concentrations of cells exhibiting caspase activity and cell death

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

Storage Conditions

Store the Muse™ MultiCaspase Kit at 2 to 8°C, protected from light.

Kit Components

- Muse™ MultiCaspase Reagent (Part No. 4700-1530, 100 tests/vial)
- Muse™ Caspase 7-AAD (Part No. 4700-1510, 100 tests/vial)
- Muse™ 10X Caspase Buffer (Part No. 4700-1535, 100 tests/vial)
- 1X PBS (Part No. 4700-1515, 100 tests/vial)
- Anhydrous DMSO (Part No. 4300-0160, 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.

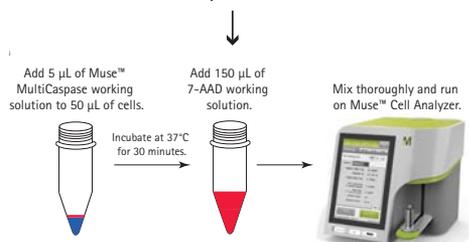
↓
Dilute 10X Caspase Buffer to 1X with DI water.

↓
Prepare cell samples in 1X Caspase buffer for incubation with MultiCaspase working solution.

↓
Resuspend content of Muse™ MultiCaspase Reagent with 50 µL of DMSO.

↓
Dilute Muse™ MultiCaspase Reagent 1:160 with 1X PBS to make MultiCaspase working solution.

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



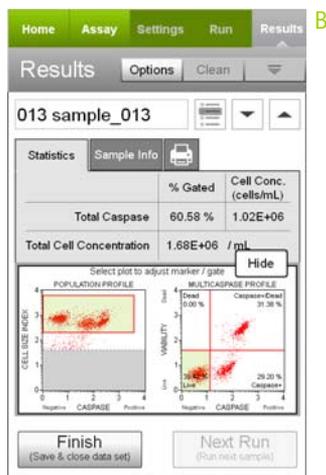
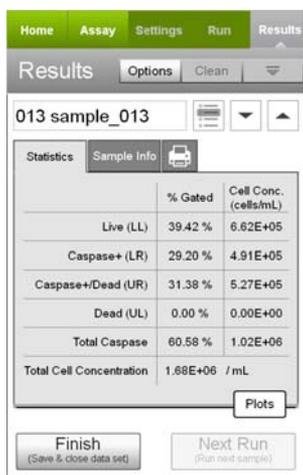
NOTE: A detailed kit user's guide can be found at www.millipore.com/muse.

Expected Results

Figures A and B show an example of results obtained using the Muse™ MultiCaspase 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 [Caspase (-) and Dead Cell Marker (-)]
- Lower-right quadrant: cells exhibiting caspase activity [Caspase (+) and Dead Cell Marker (-)]
- Upper-right quadrant: cells in the late stages of activated caspase or dead (by necrotic or caspase mechanisms) [Caspase (+) and Dead Cell Marker (+)]
- Upper-left quadrant: cells that have died, not through the caspase pathway [Caspase (-) and Dead Cell Marker (+)]



Figures A and B. Example Data: Results obtained with the Muse™ MultiCaspase software module for Jurkat cells stained with the Muse™ MultiCaspase Kit and acquired on the Muse™ Cell Analyzer. Figure A shows results without dot plots, while Figure B show 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 vs Cell Size and the second plot shows Viability vs Caspase, providing data on four cell populations – Live, Activated Caspase, Activated Caspase/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

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

- 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™ MitoPotential Kit – MCH100110



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