

Quick Reference Card

Muse® Cell Cycle Kit MCH100106

To determine the cell cycle phases of cellular samples

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

Storage Conditions

Store the Muse® Cell Cycle Kit at 2 to 8°C, protected from light.

Kit Components

Muse® Cell Cycle Reagent (Part No. 4700-1495, 100 tests/bottle)

Materials Recommended

- Guava® Muse® Cell Analyzer
- Cell suspension
- Ethanol 70%*
- Complete growth medium appropriate for your cells
- 12 x 75-mm tubes
- Micropipettors
- Disposable micropipettor tips
- Microcentrifuge tubes with screw caps, 1.5 mL (VWR Catalog No. 16466-030, or equivalent)
- Muse® Cell Dispersal Reagent (Catalog No. MCH100107), optional
- Vortex mixer
- 1X Phosphate-buffered saline (PBS)

* For preferred ethanol sources, refer to the kit user's guide.

Assay Protocol

Prepare cellular samples for staining as follows:

Transfer 1×10^5 to 1×10^6 cells to each tube.

Centrifuge cells at 300 x g for 5 minutes and wash once with 1X PBS.

While mixing/resuspending cells, slowly add enough ice cold 70% ethanol* so the cell concentration is 5×10^5 to 1×10^6 cells/mL.

Incubate for at least 3 hours at -20°C.

Add 200 µL of fixed cells to a new tube.

Centrifuge the cells at 300 x g for 5 minutes and wash once with 1X PBS.

Add 200 µL of Muse® Cell Cycle reagent to each tube and incubate for 30 minutes at room temperature in the dark.

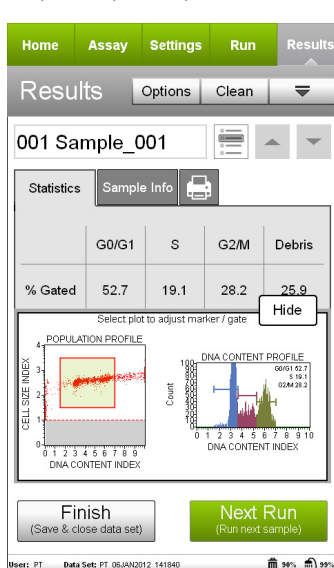
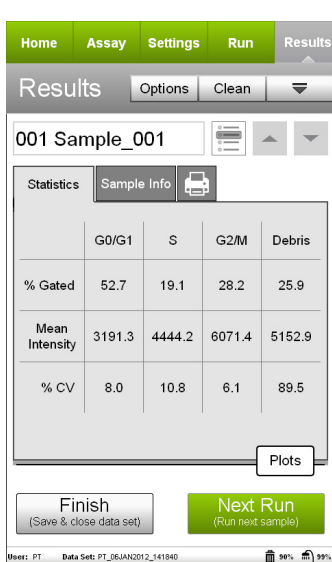


NOTE: A detailed kit user's guide can be found at www.luminexcorp.com/flowkits.

Expected Results

Figures A and B show typical results obtained with the Muse® Cell Cycle reagent. Log-phase Jurkat T cells were ethanol-fixed overnight and stained according to the instructions outlined in Assay Protocol.

Figures A and B. Example Data: Results obtained with the Muse® Cell Cycle software module using Jurkat cells stained with Muse® Cell Cycle reagent and acquired on the Muse® Cell Analyzer. Figure A shows results without dot plots, while Figure B shows the same results with the optional dot plots. The statistics show the percentage of cells in each population, the mean intensity for each peak, and the coefficient of variation (%CV) for each peak. The first plot in Figure B shows the Cell Size Index dot plot; the second plot shows the distribution of the cell cycle phases (G0/G1, S, and G2/M) in histogram format. The DNA histogram results show the results for the percentage of cells in G0/G1 (M1), S (M2), and G2/M (M3).



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.

Related Products

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

- Muse® System Check Kit - MCH100101
- Muse® Count & Viability Kit (40 mL) - MCH100102
- Muse® Count & Viability Kit (240 mL) - MCH600103
- Muse® Count & Viability Kit (200X) - MCH100104
- Muse® Annexin V & Dead Cell Kit - MCH100105
- Muse® Cell Dispersal Reagent - MCH100107
- Muse® Caspase-3/7 Kit - MCH100108
- Muse® MultiCaspase Kit - MCH100109
- Muse® MitoPotential Kit - MCH100110

Muse is a trademark of Luminex Corporation, registered in the U.S. and other countries.

Part No. 4600-3395 Rev D, July 2019. Printed in the USA.

© 2019 Luminex Corporation. All rights reserved.