

# Leica MM Live/Dead powered by MetaMorph®

## Analysis Software Drop-in for Leica MM AF

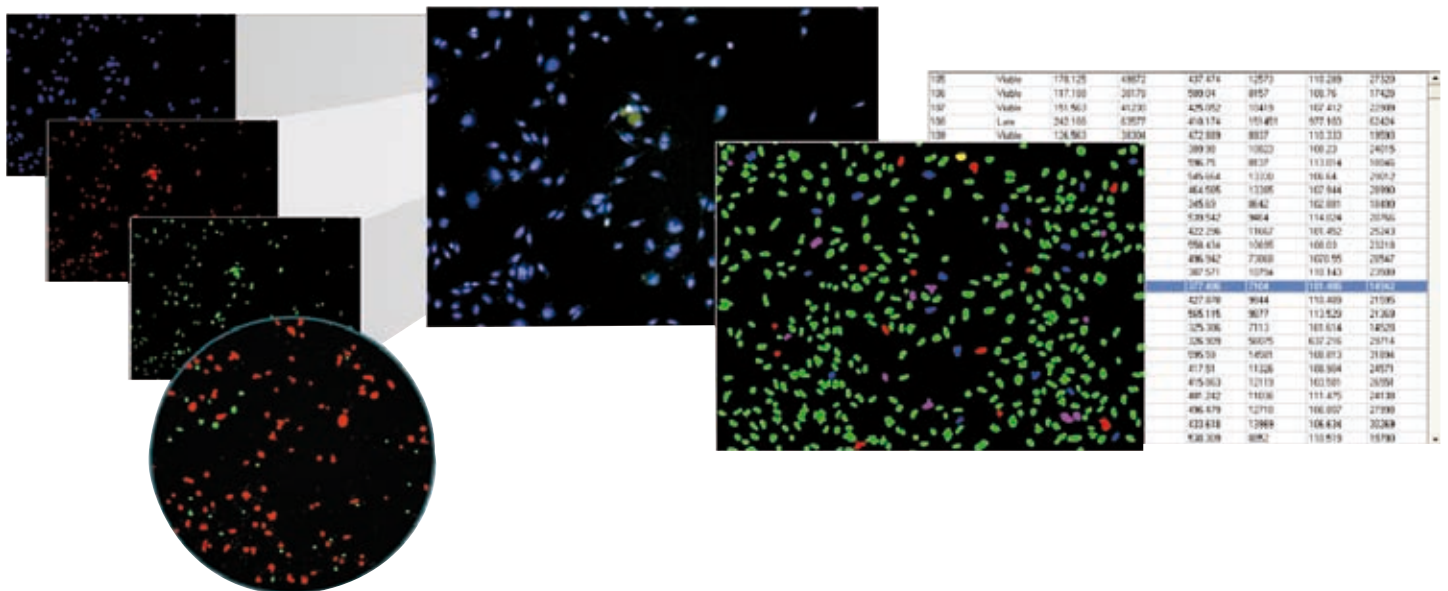
- Precise cell staining quantitation
- Generate area and intensity measurements
- Adaptive Background Correction™ for improved cell quantitation
- Field and Cell-by-Cell data logging

The Leica MM Live Dead Application Module for the Leica MM AF software is designed to automate accurate identification of cells after staining with a variety of live/dead staining kits.

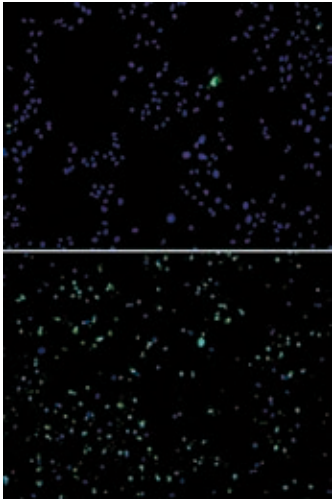
The software simultaneously reports the total number and percentage of live and dead cells, depending on stains used. Measurements of intensity and area are on a wavelength-by-wavelength or cell-by-cell basis. The module can detect a second stain as a subpopulation of an entire cell population. It can also be used with exclusive markers to detect two different populations.

The module utilizes Adaptive Background Correction adapting the cell detection algorithm to the local intensity ranges between and within cells to provide the most robust segmentation available. This technique enables probe detection even with highly variable background fluorescence within a single image.

The simple interface minimizes setup efforts and at the same time enables users to customize the settings and measurements to obtain the best possible results specific to the type of cells used in the experiments.

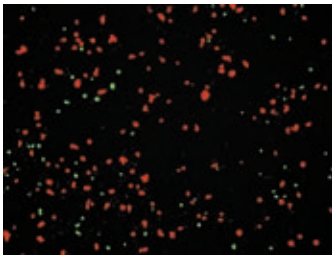


Living up to Life



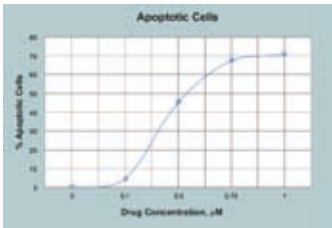
#### Image acquisition

CHO cells. Top: control, bottom: 1  $\mu$ M Staurosporine. Cells were incubated for ~24 hours and apoptosis was induced by incubating different concentrations of Staurosporine for 6 hours. Assay kit: Molecular Probes, Vybrant Assay Kit #7.



#### Cell segmentation and analysis

The Live Dead module identifies live and dead cells simultaneously



#### Data exporting

Measurements can be exported directly to a spreadsheet program for further analysis.

## Easy Configuration for analysis

Five easy steps allow you to get started in minutes:

1. Select the image of interest
2. Choose the staining population (dead, live or all)
3. Specify the stained area (nucleus, cytoplasm or both)
4. Set the minimum and maximum cell width
5. Determine the intensity above local background
6. Optionally choose the parameters for reporting

## Interactive data display

Once the analysis is run, the Cellular Results table allows you to interactively view individual cells' data. Clicking one or multiple cells in the image highlights the data for the selected cell(s) in the table.

## Customization through journaling

Journals are sophisticated and powerful macros that record and perform a series of tasks without the need for a programming language. The modules can be incorporated into a Leica MM AF journal to increase the customization and automation of your analysis.

## Multi-parameter analysis

Choose the measurements to capture, including:

- Live, dead and total cell counts
- Percentage of live and dead cells
- Per-wavelength average measurements
- Per-wavelength per-cell measurements

## Powerful data export capabilities

All measurements can be directly exported to a text file or Microsoft® Excel® for further analysis.

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