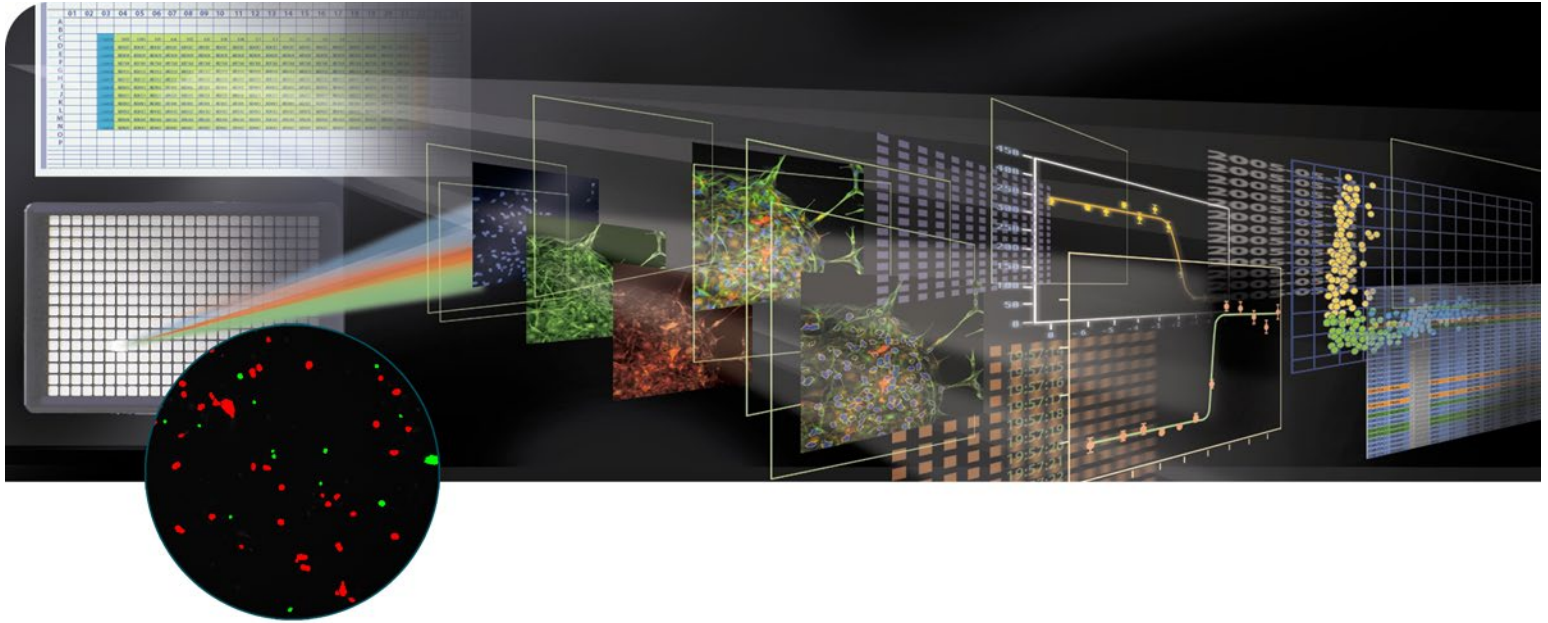# Molecular Devices

MetaXpress Software
Live/Dead Application Module

ANALYSIS SOFTWARE DROP-IN FOR METAXPRESS SOFTWARE

→ PRECISE CELL STAINING QUAN-
   TITATION

→ GENERATE AREA AND INTENSITY
   MEASUREMENTS

→ ADAPTIVE BACKGROUND COR-
   RECTION FOR IMPROVED CELL
   QUANTITATION

→ FIELD AND CELL-BY-CELL DATA
   LOGGING

The Live Dead Application Module for MetaXpress® Software from Molecular Devices is designed to automate accurate identification of cells after staining with a variety of live/dead staining kit.

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 (ABC) which adapts the detection algorithm to the local intensity ranges between and within cells to provide the most robust segmentation available in an image-based screening system. ABC enables probe detection even with highly variable background fluorescence within a single image.

A simple interface minimizes setup efforts and analysis settings can be configured once and saved for future use or customized to fit a specific experiment.

Image Acquisition

E01

E07
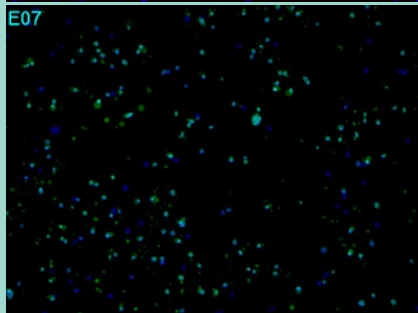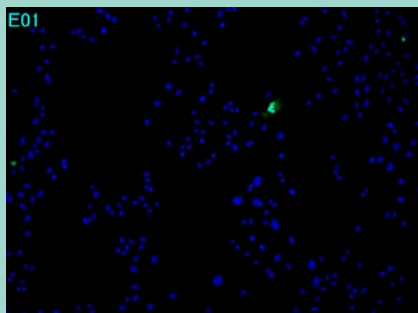
Top: control, bottom: 1 μM Staurosporine. CHO cells in one 96-well plate at ~10,000 cells per well. Cells were incubated for ~24 hours and apoptosis was induced by incubating different concentrations of Staurosporine for 6 hours. Assay kit used: Molecular Probes, Vybrant Assay Kit #7. Images acquired on the Discovery-1™ system from Molecular Devices.

Cell Segmentation and Analysis
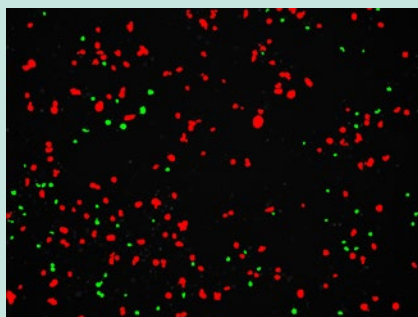
The Live Dead module identifies live and dead cells simultaneously.

Data Exporting

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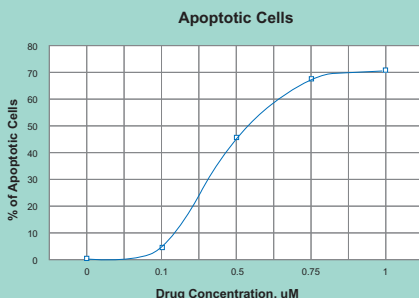
Measurements can be exported directly to a spreadsheet program for further analysis.

EASY CONFIGURATION FOR ANALYSIS

For each wavelength:

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

CUSTOMIZATION THROUGH MACROS

MetaXpress **Software** is seamlessly integrated with the power and flexibility of MetaMorph® Software and its sophisticated and powerful macros that record and perform a series of tasks without the need for a programming language.

VALIDATED DATA

Development of application modules includes research and testing with a library of in-house and third-party data sets.

POWERFUL DATA EXPORT CAPABILITIES

All measurements can be directly exported to ORACLE®, Microsoft® SQL, a text file or Microsoft® Excel®.

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

ORDERING INFORMATION

Live/Dead Application Module for MetaXpress Software
Part Number: 9500-0034

FOR MORE INFORMATION

Check our web site
www.moleculardevices.com/mx

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