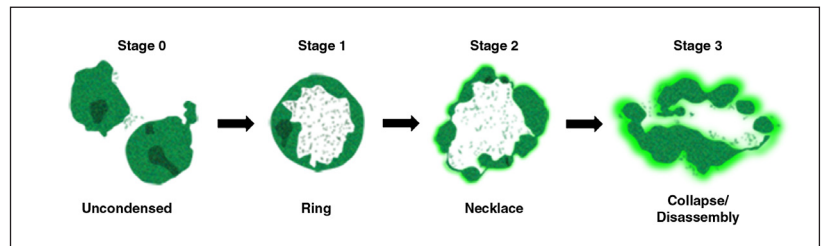


## NUCLEAR-ID® Green Chromatin Condensation Detection Kit (89165-906)

### A Highly Permeable Green-Emitting Dye for Enhanced Detection of Apoptosis-Induced Chromatin Condensation

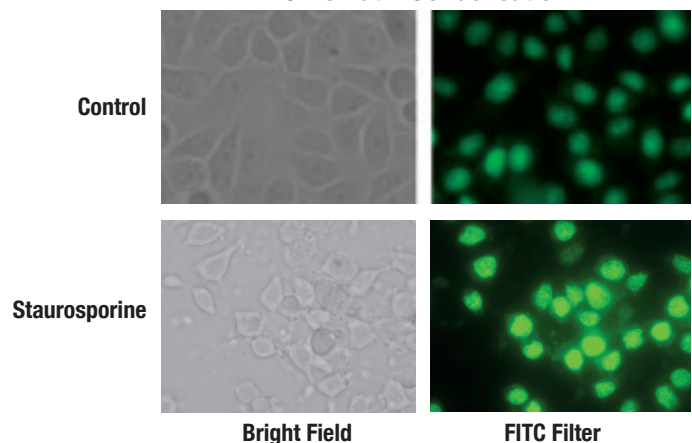
The NUCLEAR-ID Green Chromatin Condensation Detection Kit provides a rapid and convenient assay for one of the more prominent hallmarks of apoptosis, nuclear condensation. The kit contains a DNA intercalating dye that brightly stains the condensed chromatin of apoptotic cells, but only dimly stains the normal chromatin of live cells. This staining pattern makes it possible to distinguish between healthy and apoptotic cell populations by fluorescence microscopy or flow cytometry. A control apoptosis inducing agent, staurosporine, is provided for monitoring apoptotic changes in nuclear organization. Potential applications for live-cell studies using the kit include monitoring the stages of chromatin condensation and rapid testing of compounds that induce apoptosis.

- Dye excitable with standard 488 nm laser
- Intercalating dye with superior permeability with any live cell line
- Easy no-wash mix-and-read protocol
- Eliminates need for specialized 350 nm UV laser required for Hoechst dyes and reduces chances for channel interference
- No interference from small molecule fluorescence or cell autofluorescence



Chromatin condensation as observed by fluorescence microscopy using a standard 488nm laser. HeLa cells were treated for 4 hours with DMSO (Control) or 2 μM Staurosporine on a slide and stained with 5 μM NUCLEAR-ID Green dye. The intercalating dye exhibits increased fluorescence upon chromatin condensation, a hallmark of apoptosis.

### Flow Cytometry Analysis of Chromatin Condensation



Flow cytometry analysis of chromatin condensation in response to application of environmentally toxic compounds. Analysis was performed following 16-hour treatment of  $1 \times 10^6$  cells/mL Jurkat cells with various compounds at the indicated concentration. The 488 nm excitable green-emitting dye eliminates the need for specialized UV lasers required by Hoechst dye-based assays.

RELATED PRODUCTS	
PRODUCT NAME	CAT. NO.
CYTO-ID® Autophagy Detection Kit 2.0	75802-912 75802-914
GFP-CERTIFIED® Apoptosis/Necrosis Detection Kit	89165-866 89165-868
MITO-ID® Membrane Potential Detection Kit	10662-274 89165-898