ApoONLY™ Nuclear Green

Catalog number: 13295
Unit size: 100 Tests

Component	Storage	Amount (Cat No. 13295)
ApoONLY™ Nuclear Green	Freeze (< -15 °C), Minimize light exposure	1 vial (100 µL)

OVERVIEW

ApoONLY™ Nuclear Green is the first nuclear stain designed to selectively label the nuclei of apoptotic cells with green fluorescence. Apoptosis is a regulated form of cell death characterized by cellular and nuclear changes, including chromatin condensation and nuclear fragmentation. Compared with general-purpose nuclear stains, which label nuclei regardless of apoptotic status, ApoONLY™ Nuclear Green provides selective labeling of apoptotic cells. The stain supports fluorescence microscopy and flow cytometry using FITC-compatible detection settings. Its optional-wash workflow reduces sample handling, while selective nuclear labeling provides a focused readout for examining apoptotic populations. ApoONLY™ Nuclear Green supports selective nuclear imaging, assessment of apoptosis-associated nuclear changes, and comparison of stained apoptotic cell populations across experimental conditions.

AT A GLANCE

1. Prepare the cell samples and treat cells as desired.
2. Add the dye working solution.
3. Incubate for 30 minutes at room temperature
4. Analyze with fluorescence microscope using FITC filter or with flow cytometry using FITC channel

Note: Thaw the content of the vial at room temperature and centrifuge briefly before opening the vials.

KEY PARAMETERS

Fluorescence microscope

Excitation	FITC filter
Emission	FITC filter
Recommended plate	Black wall/clear bottom

Flow cytometer

Excitation	488 nm laser
Emission	530/30 nm filter
Instrument specification(s)	FITC channel

PREPARATION OF WORKING SOLUTION

ApoONLY™ Nuclear Green dye working solution for fluorescence microscopy:

Add 100 µL of ApoONLY™ Nuclear Green to 10 mL of cell culture medium or HHBS buffer (Cat# 20011) and mix well.

Note: 10 mL volume is sufficient for 100 tests. Make ApoONLY™ Nuclear Green dye working solution sufficient for the assays and use promptly.

Note: Store unused ApoONLY™ Nuclear Green at -20 °C for further use.

SAMPLE EXPERIMENTAL PROTOCOL

The following protocol can be used as a guideline and can be adapted for any cell type. Growth medium, cell density, the presence of other factors may influence staining.

Sample protocol for fluorescence microscopy:

1. Prepare the cell samples and treat cells to induce apoptosis as desired (100 µL/well volume).
2. Add 100 µL of ApoONLY™ Nuclear Green dye working solution per well (Total volume 200 µL/well).
   Note: For optimal staining, try a range of dye concentrations to determine that best yield the optimal staining.
3. Incubate cells for 30 minutes at room temperature, protected from light.
4. **Optional:** Remove the ApoONLY™ Nuclear Green dye working solution and replace it with 100 µL of HHBS buffer (Cat# 20011) or buffer of your choice.
5. Monitor fluorescence using fluorescence microscopy with FITC filter set.

Sample protocol for flow cytometry:

1. Prepare the cell samples and treat cells to induce apoptosis as desired.
2. For adherent cells, detach cells from cell culture using trypsin or ReadiUse™ Cell Detaching Buffer (Cat# 60010).
3. Add 1 µL of ApoONLY™ Nuclear Green dye in 200 µL of cells and mix well.
   Note: For optimal staining, try a range of dye concentrations to determine that best yield the optimal staining.
4. Incubate cells for 30 minutes at room temperature, protected from light.
5. **Optional:** Remove the ApoONLY™ Nuclear Green dye working solution and replace it with 500 µL of HHBS buffer (Cat# 20011) or buffer of your choice.
6. Monitor fluorescence using flow cytometry with 488 nm laser and 530/30 nm emission filter (FITC channel).

EXAMPLE DATA ANALYSIS AND FIGURES

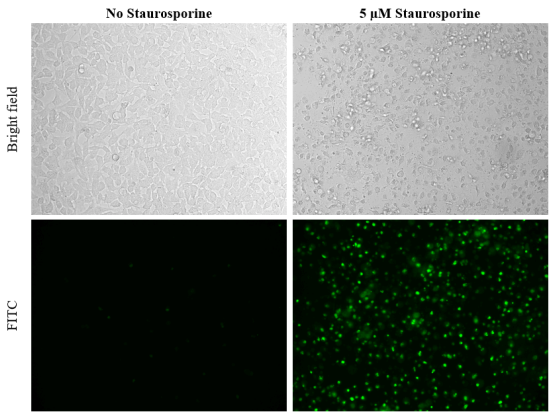


Figure 1. Fluorescence images of live and apoptotic HeLa cells stained

© AAT Bioquest, Inc. Last revised November 2026. For more information and tools, please visit https://www.aatbio.com

with ApoONLY™ Nuclear Green (Cat. #13295). HeLa cells were treated with staurosporine to induce apoptosis, followed by staining with ApoONLY™ Nuclear Green. The stain selectively labeled the nuclei of apoptotic cells, producing green fluorescence, while untreated live cells showed no detectable nuclear fluorescence.

DISCLAIMER

AAT Bioquest provides high-quality reagents and materials for research use only. For proper handling of potentially hazardous chemicals, please consult the Safety Data Sheet (SDS) provided for the product. Chemical analysis and/or reverse engineering of any kit or its components is strictly prohibited without written permission from AAT Bioquest. Please call 408-733-1055 or email info@aatbio.com if you have any questions.