

Nuclear Green™ DCS1 *5 mM DMSO Solution*

Catalog number: 17550
Unit size: 0.5 ml

Component	Storage	Amount (Cat No. 17550)
Nuclear Green™ DCS1	Freeze (< -15 °C), Minimize light exposure	1 vial (0.5 mL)

OVERVIEW

Our Nuclear Green™ DCS1 is a fluorogenic, DNA-selective and cell-impermeant dye for analyzing DNA content in dead, fixed or apoptotic cells. The Nuclear Green™ DCS1 has its green fluorescence significantly enhanced upon binding to DNA. It can be used in fluorescence imaging, microplate and flow cytometry applications. This DNA-binding dye might be used for multicolor analysis of dead, fixed or apoptotic cells with proper filter sets.

AT A GLANCE
Spectral Properties

Ex/Em = 515/530 nm (bound to DNA)

KEY PARAMETERS
Fluorescence microscope

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

SAMPLE EXPERIMENTAL PROTOCOL

Caution: The following protocol can be adapted for most cell types. Growth medium, cell density, the presence of other cell types, and factors may influence staining. Residual detergent on glassware may also affect the staining of many organisms and cause brightly stained material to appear in solutions with or without cells present.

1. Add 2 to 10 µM of Nuclear Green™ DCS1 to fixed, dead, or apoptotic cells (whether in suspension or adherent) and incubate for 15 to 60 minutes.

Note: In order to determine the optimal concentration that yields the desired result, it is advisable to test a wide range of dye concentrations in initial experiments.

Optional: Wash the cells twice with Hanks and 20 mM HEPES buffer (HBSS) or a buffer of your choice. Then fill the wells with fresh HBSS or growth medium.

2. Observe the cells using a fluorescence microscope, fluorescence microplate reader, or flow cytometer equipped with the desired filter set.

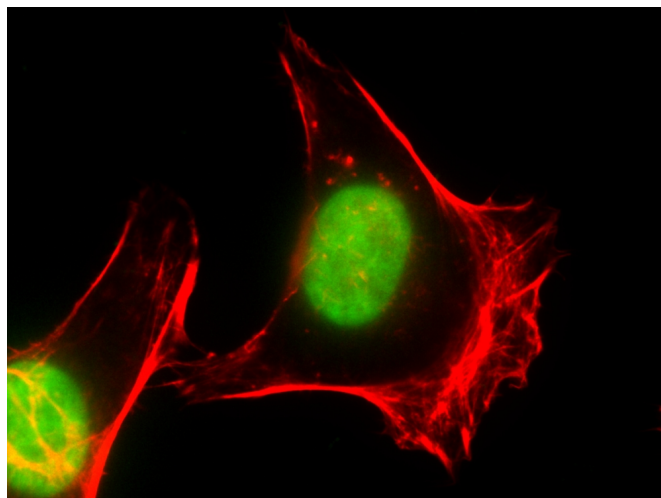
EXAMPLE DATA ANALYSIS AND FIGURES


Figure 1. Fluorescence image of HeLa cells fixed with 4% formaldehyde then stained with iFluor 594 Phalloidin (Cat#23122, Red) and nuclei stain Nuclear Green™ DCS1 (Cat#17550, Green)

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