

Nuclear Red™ DCS1 *5 mM DMSO Solution*

Catalog number: 17552
Unit size: 0.5 ml

Component	Storage	Amount (Cat No. 17552)
Nuclear Red™ DCS1	Freeze (< -15 °C), Minimize light exposure	1 vial (0.5 ml)

OVERVIEW

Our Nuclear Red™ DCS1 is a fluorogenic, DNA-selective and cell-impermeant dye for analyzing DNA content in dead, fixed or apoptotic cells. The Nuclear Red™ DCS1 has its red 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 = 642/657 nm (bound to DNA)

KEY PARAMETERS
Fluorescence microscope

Excitation	Cy5 Filter
Emission	Cy5 Filter
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 Nuclear Red™ DCS1 (2 to 10 μ M) into the fixed, dead or apoptotic cells (either suspension or adherent) and incubate the cells for 15 to 60 minutes.

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

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.

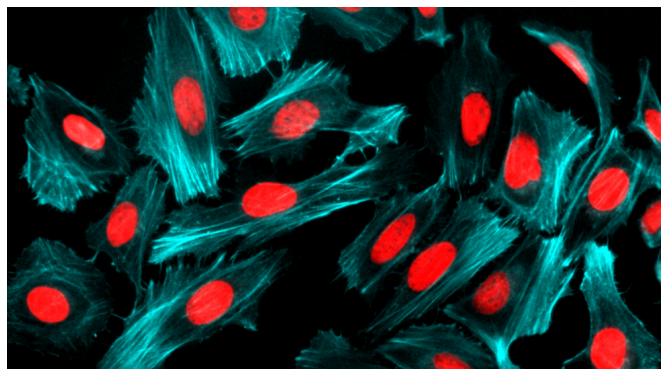
EXAMPLE DATA ANALYSIS AND FIGURES


Figure 1. Fluorescence image of HeLa cells stained with Phalloidin-iFluor® 405 Conjugate using fluorescence microscope. The cells were fixed in 4% formaldehyde, permeabilised with 0.2% Triton X-100 followed by staining with Phalloidin-iFluor® 405 Conjugate (#23111) and counter staining with Nuclear Red™ DCS1 (#17552). The image was acquired with fluorescence microscope using violet and cy5 filters.

DISCLAIMER

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