

Nuclear Blue™ DCS1 *5 mM DMSO Solution*

Catalog number: 17548
Unit size: 0.5 ml

Component	Storage	Amount (Cat No. 17548)
Nuclear Blue™ DCS1	Freeze (< -15 °C), Minimize light exposure	1 vial (0.5 ml)

OVERVIEW

Our Nuclear Blue™ DCS1 is a fluorogenic, DNA-selective and cell-impermeant dye for analyzing DNA content in dead, fixed or apoptotic cells. The Nuclear Blue™ DCS1 has its blue 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 the DAPI filter sets. For example, Nuclear Blue™ DCS1 can be used with GFP cell lines.

AT A GLANCE

Spectral Properties

Ex/Em = 355/458 nm (bound to DNA)

KEY PARAMETERS

Fluorescence microscope

Emission	DAPI Filter
Excitation	DAPI 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 Blue™ DCS1 (2 to 10 μM) 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

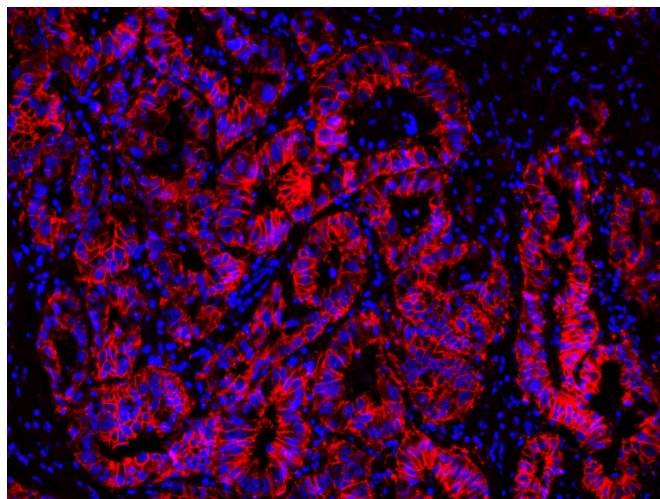


Figure 1. Immunohistochemical analysis of paraffin-embedded human lung adenocarcinoma using EpCAM Rabbit mAb followed by iFluor® 555 goat anti-rabbit IgG (H+L) (Cat No. 16620, red). The nuclei were counterstained using Nuclear Blue™ DCS1 (Cat No. 17548, blue).

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