

Nuclear Blue™ LCS1

Catalog number: 17559
Unit size: 0.5 mL

Component	Storage	Amount (Cat No. 17559)
Nuclear Blue™ LCS1	Freeze (< -15 °C), Minimize light exposure	0.5 mL

OVERVIEW

Our Nuclear Blue™ LCS1 is a fluorogenic, DNA-selective, and cell-permeant dye for analyzing DNA content in live cells. The Nuclear Blue™ LCS1 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 the multicolor analysis of live cells with the DAPI filter sets. For example, Nuclear Blue™ LCS1 can be used with GFP cell lines.

AT A GLANCE

Spectral Properties

Ex/Em = 353/456 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™ LCS1 (2 to 10 μ M) directly into the live cell culture medium (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.

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

EXAMPLE DATA ANALYSIS AND FIGURES

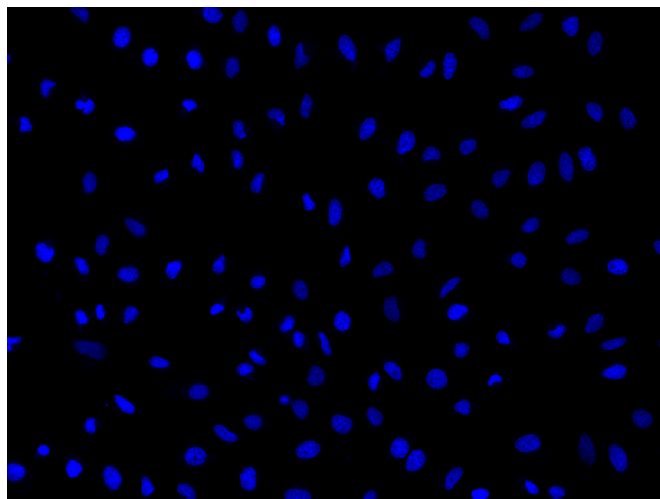


Figure 1. Fluorescence image of live HeLa cells stained with Nuclear Blue™ LCS1 (Cat. 17559) and visualized using a fluorescence microscope equipped with a DAPI filter set.

DISCLAIMER

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