

Nuclear Violet™ LCS1

Ordering Information

Product Number: 17543 (5 mM)

Storage Conditions

Keep at -20 °C and avoid light

Spectral Properties

Ex/Em = 401/459 nm

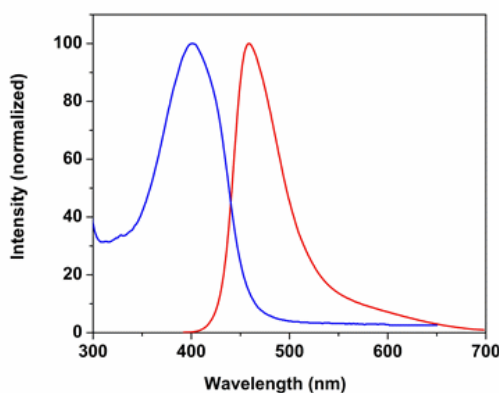


Figure 1. Excitation and emission spectra for the Nuclear Violet™ LCS1 bound to DNA in PBS (pH 7.4).

Biological Applications

Our Nuclear Violet™ LCS1 is a fluorogenic, DNA-selective and cell-permeant dye for analyzing DNA content in living cells. The Nuclear Violet™ LCS1 has its violet fluorescence significantly enhanced upon binding to DNA. It can be used in fluorescence imaging, microplate and flow cytometry applications. It is well excited by violet laser at 405 nm, and emits violet/cyan fluorescence light around an emission maximum at ~460 nm, and provides an excellent tool for flow cytometers equipped with a 405 nm violet laser source. This DNA-binding dye might be used for multicolor analysis of live cells with the filter sets of Pacific Blue and BD Horizon V450.

Sample Protocol for Cell Staining

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 staining of many organisms, and cause brightly stained material to appear in solutions with or without cells present.

1. Add Nuclear Violet™ LCS1 (0.5 to 10 µM) into the cells (either suspension or adherent cells), and stain the cells for 15 to 60 minutes. In initial experiments, it may be best to try several dye concentrations to determine the optimal concentration that yields the desired result. High dye concentration tends to cause nonspecific staining of other cellular structures.
2. Wash the cells with growth medium, Hanks and 20 mM HEPES buffer or buffer of your choice twice. Add the growth medium back to the cells, and analyze the cellular staining with a fluorescence microscope, a fluorescence microplate reader, or flow cytometer.

Disclaimer: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact our technical service representative for more information.