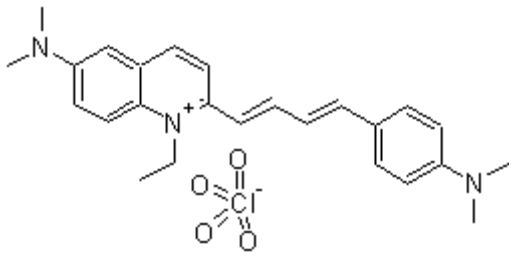
LDS 751

Ordering Information	*Storage Conditions*
Product Number: 17561 (25 mg)	Keep at -20 °C and avoid exposure to light

Chemical and Physical Properties



Molecular Weight: 471.98
Appearance: Dark green powder
Solvents: water or dimethylsulfoxide (DMSO)
Spectral Properties: Excitation = 543 nm; Emission = 712 nm.

Biological Applications

LDS 751 is a fluorescent cell-permeant nucleic acid stain that can be well excited with 488 nm laser line although it has a peak excitation at ~543 nm on dsDNA. It might be an alternative to DRAQ 5™, useful in multicolor analyses due to its long wavelength emission maximum (~712 nm). Upon binding to dsDNA, LDS 751 has ~20-fold fluorescence enhancement. It has been reported that LDS-751 is excluded from the nucleus and binds the polarized membranes of mitochondria. Thus cautions need be taken when LDS 751 is used for analyzing live cells and LDS-751 fluorescence as being indicative of nuclear status. LDS 751 has been also used to separate red blood cells from nucleated cells.

Sample Protocol for Staining Cells

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. Make a 5-10 mM DMSO stock solution.

2. Add 1 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.

3. Directly 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.*