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LUCS® 9, green fluorescent nucleic acid stain

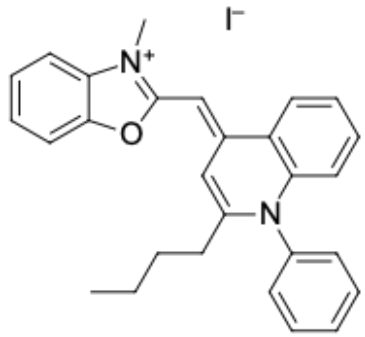
http://www.lumiprobe.com/p/lucs-9-green-nucleic-acid-stain-syto-9

LUCS 9 is a cell-permeant nucleic acid stain that exhibits green fluorescence upon binding to nucleic acids. The stain has a high fluorescent yield and a structure identical to SYTO™9 stain.

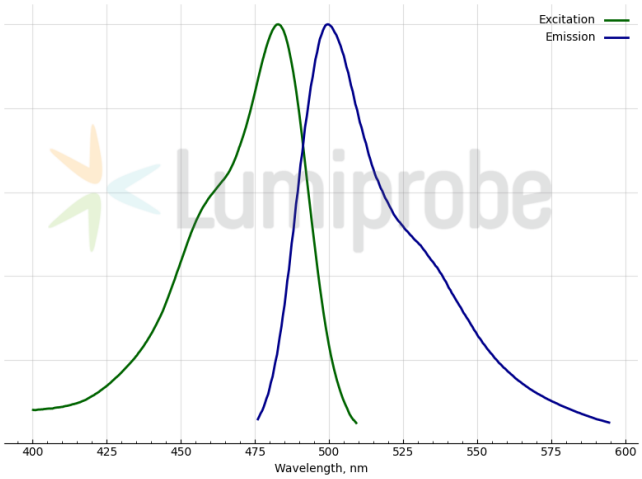
LUCS 9 is used to stain both DNA and RNA in live and dead eukaryotic cells as well as Gram-positive and Gram-negative bacteria. The dye is excited by the blue laser at 485 nm. Its fluorescence emission is detected in the fluorescein channel with a peak at 500 nm when bound to DNA and 504 nm when bound to RNA.

The dye can be used in simultaneous labeling with cell-impermeant nuclear markers, such as YoDi-3, propidium iodide, or 7-AAD to evaluate cell viability using fluorescence microscopy and flow cytometry.

LUCS 9 is especially useful as a counterstain for bacterial assays due to its ability to stain both live and dead Gram-negative and Gram-positive bacteria.



Structure of LUCS® 9



Excitation and emission spectra of dsDNA complex with LUCS® 9

General properties

Appearance:	orange solution
Molecular weight:	534.44
Molecular formula:	$C_{28}H_{27}IN_2O$
Solubility:	miscible with water
Quality control:	NMR ^1H and HPLC-MS (95+%)
Storage conditions:	24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

Spectral properties

Excitation/absorption maximum, nm:	477 (free), 482 (DNA complex)
Emission maximum, nm:	500 (DNA complex), 504 (RNA complex)