MycoLight™ Green JJ98 *5 mM in DMSO*

Catalog number: 24000
Unit size: 100 uL

Component	Storage	Amount
MycoLight™ Green JJ98	Freeze (< -15 °C), Minimize light exposure	1 vial (100 µL- 5 mM)

OVERVIEW

MycoLight™ Green JJ98 is a green-fluorescent nuclear and chromosome stain that is permeant to both prokaryotic and eukaryotic cell membranes. MycoLight™ Green JJ98 has a high affinity for DNA, and exhibits enhanced fluorescence upon binding with an excitation maximum close to the 488 nm argon laser line and fluorescence emission maximum at ~500 nm. MycoLight™ Green JJ98 is particularly useful as a nuclear counterstain for bacterial assays since it stains both live and dead gram-positive and gram-negative bacteria. It is an excellent replacement for SYTO® 9 (SYTO® is the trademark of Invitrogen).

KEY PARAMETERS

Flow cytometer

Excitation	488 nm laser
Emission	530/30 nm filter
Instrument specification(s)	FITC channel

Fluorescence microscope

Excitation	FITC filter set
Emission	FITC filter set
Recommended plate	Black wall/clear bottom

SAMPLE EXPERIMENTAL PROTOCOL

The following protocol can be adapted for most cell types. These conditions require adjustment for each cell type and experimental system. 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.
Use plastic tubes when diluting MycoLight™ Green JJ98, because the diluted stain adheres to glass. In general, the best results are obtained in buffers that do not contain phosphate.
Table 1. Suggested conditions for staining cells with MycoLight™ Green JJ98

Application	Concentration	Staining Conditions
Bacterial cells	50 nM – 20 µM	Vortex to mix, then incubate for 1–30 minutes.
Eukaryotic cells	10 nM – 5 µM	Incubate for 10–120 minutes.
Microarrays	50 nM in TE buffer	Incubate for 5 minutes, rinse and then dry.

1. Adherent cells in culture may be stained *in situ* on coverslips. Pellet cells in suspension by centrifugation and resuspend in buffered salt solution or water.

2. Dilute the MycoLight™ Green JJ98 with non-phosphate buffer such as Hepes buffer or buffer of your choice. Add MycoLight™ Green JJ98 using the concentrations listed in Table 1 as a guideline.

   Note In initial experiments, it may be best to try several dye concentrations over the entire suggested range to determine the concentration that yields optimal staining.

3. Stained eukaryotic cells generally show diffuse cytoplasmic staining as well as nuclear staining. Particularly MycoLight™ Green JJ98 show intense staining of intranuclear bodies frequently.

EXAMPLE DATA ANALYSIS AND FIGURES

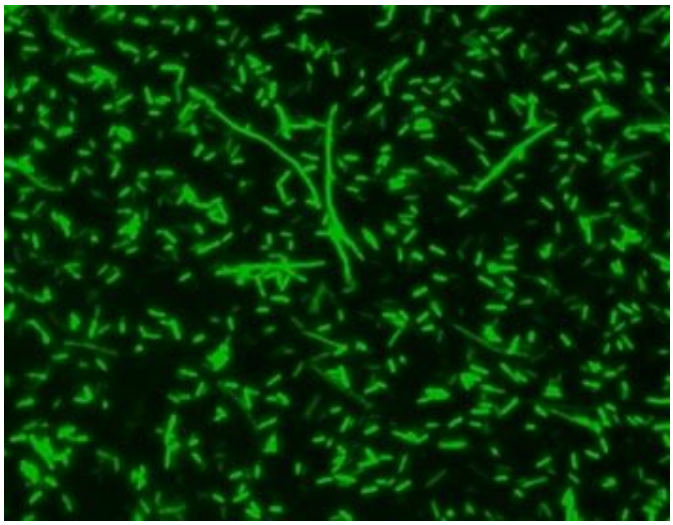

Figure 1. *E.Coli* were stained with 5 uM of MycoLight™ Green JJ98 for 30 minutes and imaged with FITC channel.

DISCLAIMER

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