PRODUCT INFORMATION SHEET

MycoLight™ Green JJ99 *5 mM in DMSO*

Catalog number: 24001
Unit size: 100 ul

Component	Storage	Amount
MycoLight™ Green JJ99	Freeze (< -15 °C), Minimize light exposure	1 vial (100 µL- 5 mM)

OVERVIEW

MycoLight™ Green JJ99 stain is an excellent green-fluorescent nuclear and chromosome counterstain that is permeant to both prokaryotic and eukaryotic cell membranes. MycoLight™ Green JJ99 stain 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 JJ99 stain 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 JJ99, 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 JJ99

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 JJ99 with non-phosphate buffer such as Hepes buffer or buffer of your choice. Add MycoLight™ Green JJ99 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 JJ99 show intense staining of intranuclear bodies frequently.

EXAMPLE DATA ANALYSIS AND FIGURES

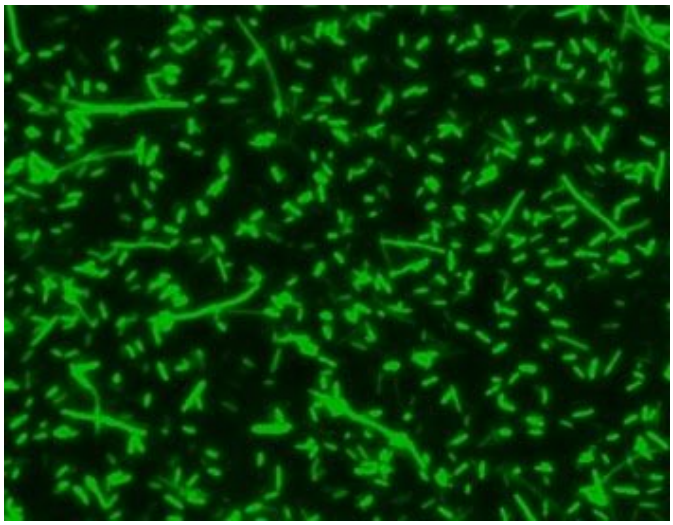

Figure 1. *E.Coli* were stained with 5 uM of MycoLight™ Green JJ99 for 30 minutes and imaged with FITC channel.

DISCLAIMER

AAT Bioquest provides high-quality reagents and materials for research use only. For proper handling of potentially hazardous chemicals, please consult the Safety Data Sheet (SDS) provided for the product. Chemical analysis and/or reverse engineering of any kit or its components is strictly prohibited without written permission from AAT Bioquest. Please call 408-733-1055 or email info@aatbio.com if you have any questions.