

Product Information

BactoView™ Live Fluorescent Bacterial Stains

Product	Cat. no.	Size	Concentration
BactoView™ Live Green	40102	100 uL	500X in DMSO
BactoView™ Live Red	40101	100 uL	500X in DMSO

Storage and Handling

Store at 4°C and protect from light. Products are stable for at least 3 years from date of receipt when stored as recommended.

Spectral Properties

Product	Abs/Em	Detection channel (microscopy)	Detection channel (flow)
BactoView™ Live Green	500/520 nm	FITC	FITC
BactoView™ Live Red	572/675 nm	Cy@3	PE-Cy@5

See Figures 1 & 2 below for full excitation and emission spectra

Product Description

The BactoView™ Live dyes provide useful tools for the detection and measurement of bacteria. It is often useful to be able to detect any bacteria in a sample, regardless of strain type, gram stain status, or level of viability. BactoView™ Live dyes are able to stain both gram-positive and gram-negative bacteria, as well as both live and dead bacteria, though the dyes tend to stain dead cells more brightly than live cells.

Note that BactoView™ Live dyes cannot be used to distinguish bacteria from eukaryotic cells, because they will stain other cell types as well.

BactoView™ Live dyes are bright, cell-permeable, fluorogenic DNA-binding dyes. Stained cells can be detected by fluorescence microscopy or flow cytometry, for experimental flexibility. See the Spectral Properties table above for recommendations on instrument detection channels. Please note that BactoView™ Live Red has the strongest signal in the PE-Cy@5 flow channel but is also bright in the PE-TexasRed® and PE channels.

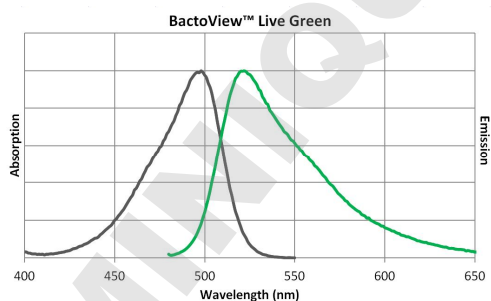


Figure 1. Normalized absorption and emission of BactoView™ Live Green

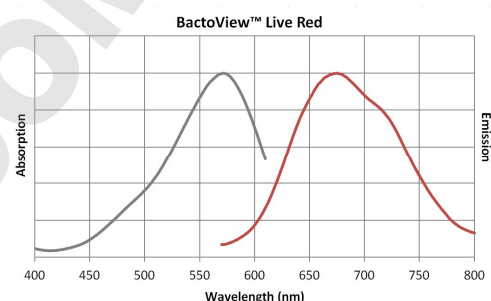


Figure 2. Normalized absorption and emission of BactoView™ Live Red

Bacteria Staining Protocol

This protocol has been developed for staining laboratory bacteria strains in liquid culture. Some optimization may be needed for other sample types.

1. Grow your cells in the appropriate growth medium and growth conditions. We typically grow bacteria overnight at 37°C.
2. If desired, collect the cells by centrifugation and resuspend in a buffer for staining. BactoView™ Live dyes can stain cells in growth medium, as well as PBS, HBSS and 150 mM NaCl.
3. Add BactoView™ Live dye to the bacterial sample at a final concentration of 1X. For example, if the sample volume is 500 uL, add 1 uL of BactoView™ Live dye and mix well. Dye concentration may be optimized for different cell or sample types.
4. Incubate at room temperature or 37°C for 30 minutes, in the dark.
5. Collect cells by centrifugation and resuspend in fresh buffer of your choice.
6. For fluorescence microscopy, you may mount 5 uL of the sample on a slide with an 18 mm coverslip. Alternatively, you may pipet 100 uL of sample into a 96-well optical bottom plate. Image cells stained with BactoView™ Live Green in the FITC or GFP channel; image cells stained with BactoView™ Live Red in the Cy@3 channel.
7. For flow cytometry, you can dilute the sample 1:10 in FACS wash buffer (PBS + 1% serum) or similar buffer. You may need to further dilute the sample in FACS buffer to achieve the desired flow rate. Detect cells stained with BactoView™ Live Green in the FITC or channel; detect cells stained with BactoView™ Live Red in the PE-Cy@5 channel (or PE-Texas Red® or PE channels).

Related Products

Catalog number	Product
32001	Bacterial Viability and Gram Stain Kit
30027	Viability/Cytotoxicity Assay for Bacteria
32000	Live Bacteria Gram Stain Kit
40069	PMAxx™ Dye for Viability PCR, 20 mM in Water
40019	PMA Dye for Viability PCR, 20 mM in Water
E90002	PMA-Lite™ LED Photolysis Device
31033-31053	Real-Time PCR Bacterial Viability Kits (choose from kits for 8 bacterial strains)
32002-32009	Live-or-Dye™ Fixable Viability Staining Kits
29021-29064	CF® Dye Wheat Germ Agglutinin (WGA)
10063	CTC, bacterial respiration dye
31062	Yeast Vitality Staining Kit
31063	Yeast Viability Staining Kit
31064	Yeast Fixable Live/Dead Staining Kit

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