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# **Product Information**

# BactoView™ Live Fluorescent Bacterial Stains

Concentration: 500X in DMSO

| Product               | Full Size (100 uL) | Trial Size (20 uL) |
|-----------------------|--------------------|--------------------|
| BactoView™ Live Green | 40102              | 40102-T            |
| BactoView™ Live Red   | 40101              | 40101-T            |

# 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               |            | 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-Texas Red® and PE channels.

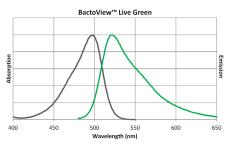


Figure 1. Normalized absorption and emission of BactoView™ Live Green.

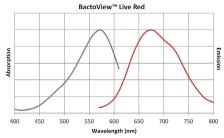


Figure 2. Normalized absorption and emission of BactoView™ Live Red.

#### **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.

- Grow your cells in the appropriate growth medium and growth conditions.
   We typically grow bacteria overnight at 37°C.
- 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, or 150 mM NaCl.
- 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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