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BactoSpore™ Bacterial Stains

Fluorescent dyes optimized for staining endospores. The dyes also stain both live and dead bacteria of gram-positive and gram-negative strains. In *B. subtilis*, the dyes stain both vegetative cells and endospores and have been validated for detection by fluorescence microscopy and flow cytometry.

Product attributes

Apoptosis/viability marker	All cell stain
For live or fixed cells	For live/intact cells
Detection method/readout	Fluorescence microscopy, Flow cytometry
Assay type/options	Endpoint assay
Colors	Green, Orange
Storage Conditions	Store at 2 to 8 °C, Protect from light

Product Description

BactoSpore™ Stains are fluorescent dyes optimized for staining endospores. The dyes also stain both live and dead bacteria of gram-positive and gram-negative strains. In *B. subtilis*, the dyes stain both vegetative cells and endospores and have been validated for detection by fluorescence microscopy and flow cytometry.

- Fluorescent stain optimized for endospores, unlike other bacterial detection reagents
- Also stains both live and dead bacteria of gram-positive and gram-negative strains
- Validated for microscopy or flow cytometry
- BactoSpore™ 485/500 for membrane staining in the FITC channel
- BactoSpore™ 488/540 for nucleic acid staining in the FITC or PE channel

Novel bacterial stains designed for bright staining of endospores

Bacterial endospores are tough dormant structures formed by certain strains of bacteria including Bacillus and Clostridium species in response to nutrient deprivation and other stressors. Endospore formation allows these bacteria to survive in a non-replicative state until growth conditions improve, at which point the spores can germinate to allow vegetative cell replication. Endospores provide a reservoir of potentially infectious bacteria that are resistant to disinfectants, heat, and other decontamination treatments. In addition, the spore coat is highly impermeant and resistant to staining with bacterial detection reagents, making it difficult to study endospore formation and inactivation.

BactoSpore™ stains were developed to tackle the challenge of endospore detection by offering bright staining of endospores as well as live and dead bacteria. BactoSpore™ 485/500 Membrane Stain is a green fluorescent lipophilic membrane dye for the FITC channel. BactoSpore™ 488/540 Nucleic Acid Stain is a yellow fluorescent nucleic acid dye that is detectable in both the FITC channel and the PE channel for flow cytometry.

BactoSpore™ Bacterial Stains

Product Name	Ex/Em (nm)	Detection Channel	Size	Catalog No.
BactoSpore™ 485/500 Membrane Stain, 500X in EtOH	484/504	FITC	20 uL	40119-T
			100 uL	40119
BactoSpore™ 488/540 Nucleic Acid Stain, 500X in DMSO	488/536 (with DNA)	FITC or PE Channel	20 uL	40120-T
			100 uL	40120

BactoSpore™ 485/500 Membrane Stain

BactoSpore™ 488/540 Nucleic Acid Stain

View Biotium's full selection of microbiology stains, including BactoView™ Live and BactoView™ Dead stains for staining live and dead bacteria, respectively. Biotium also offers BactoView™ Viability Kits, which include a choice of red or far-red BactoView™ Dead Stain for dead bacteria and BactoView™ Viability Green Counterstain to stain all bacteria. BactoView™ Dead Stains also can be combined with fluorescent Gram stains like our CF® Dye WGA Conjugates.