Dye for viability PCR

**MARKET OPPORTUNITY**
The bacteriological testing market was USD 9.58 billion in 2017, and is projected to reach USD 13.98 billion by 2022, at a compound annual growth rate of 7.8%. Culture methods require 4-5 days to obtain presumptive positive or negative results and can take up to 7 days, depending on the biochemical and serological confirmations. The current dyes used for viability PCR target cells with compromised membranes. Not all inactivation methods disrupt the cell membrane so not all nonviable cells have compromised membranes. As a result, the estimation of the viable bacteria is inaccurate and bacterial cells can remain visibly intact and impermeable to the dyes for hours or days after the viability is lost.

**TECHNOLOGY**
This is a dye that can selectively detect the cells that exhibit metabolic activity. Hence, it has the innate ability to detect inactivation under conditions that do not impact membrane permeability.

**CATEGORY**
Reagents

**STAGE OF DEVELOPMENT**
TRL2

**APPLICATIONS**
- Probiotic detection
- Microbiological Testing of Water
- Clinical diagnosis
- Food Safety Testing

**ADVANTAGES**
- Accurate estimation of viable bacteria
- Cheap
- Easy to use

**STATUS**
Patent pending. Available for licensing and research collaboration.

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