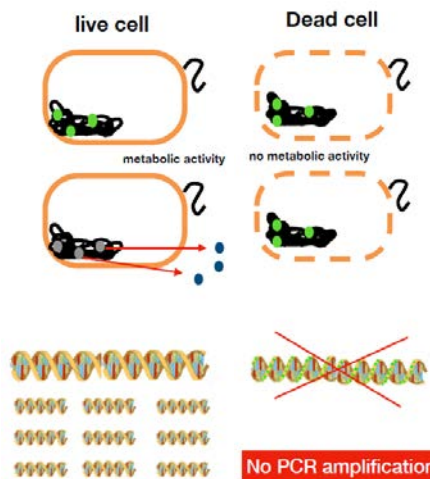


Dye for viability PCR



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.

Contact:

Ler Ser Yeng
Phone: +65-6601 6248
E-mail: seryeng.ler@nus.edu.sg
ILO Ref No: 2018-040

Primary inventor:

Asst Prof Bae Sung Woo
E-mail: ceebw@nus.edu.sg