# Bacteria Red Probe (AIE)

## A1456408

Storage at -20°C (12 months). Avoid freeze/thaw cycle. Protect from light.

### Introduction:

Bacteria Red Probe (AIE) is a new type of bacterial probe based on the aggregation-induced emission effect. It selectively localizes to different parts of three pathogens. Under ultraviolet light excitation, three distinguishable emission colors can be observed with the naked eye (Gram-negative bacteria appear pale pink, Gram-positive bacteria appear orange-red, and fungi appear bright yellow). Based on its unique fluorescent properties, it can also distinguish different bacteria using a microplate reader. Additionally, this product enables long-term tracking and imaging of live bacteria.

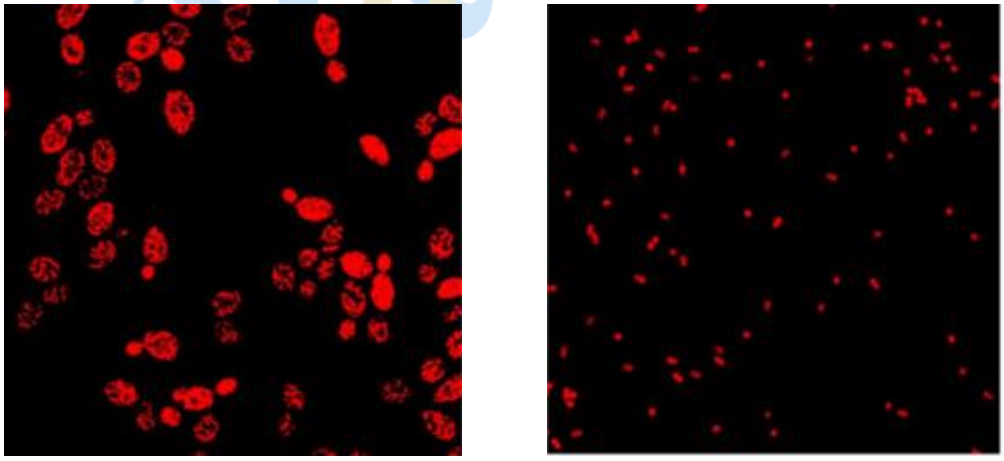
### Intended Use:

For staining live bacteria and fungi.

### Test Principle:

This product is a new type of bacterial probe based on the aggregation-induced emission effect. It selectively localizes to different parts of three pathogens. Under ultraviolet light excitation, three distinguishable emission colors can be observed with the naked eye (Gram-negative bacteria appear pale pink, Gram-positive bacteria appear orange-red, and fungi appear bright yellow). Based on its unique fluorescent properties, it can also distinguish different bacteria using a microplate reader. Moreover, this product allows long-term tracking and imaging of live bacteria.

### Product Effect:



Imaging effect of AIE bacterial red probe staining.

Left: Candida albicans; Right: Staphy-lococcus aureus.

## Sample Requirements:

Suitable for cultured live bacteria or fungal samples.

## Test Method:

Please read this instruction manual carefully before using this product.

1. Preparation of dye stock solution: After brief centrifugation, appropriately aliquot the dye stock solution and store it protected from light at -20°C or lower.
2. Bacterial preparation: Bacteria cultured overnight are centrifuged, washed 2-3 times with PBS, and concentrated to 2 mL of bacterial solution. It is recommended that the bacterial concentration has an $OD_{600}$ value of 0.2-1.5.
3. Bacterial staining: Add 1 μL of stock solution to the concentrated bacterial solution to make the final concentration of the probe 5-10 μM. For specific bacteria, the concentration of the probe can be appropriately increased or decreased to achieve the best imaging effect.
4. Staining and imaging: Place the bacterial solution at room temperature for about 10 minutes, take 2-3 μL and drop it on a glass slide, cover with a coverslip, and observe with a confocal fluorescence microscope. The excitation wavelength is set to 450 nm, and the emission wavelength is set to 570-630 nm.

## Precautions:

1. Wear disposable gloves when using this product to avoid contact with skin and eyes. In case of contact, rinse immediately with plenty of water. If swallowed or splashed into eyes, seek medical attention promptly.
2. All samples, biological reagents, and experimental items should be regarded as potentially infectious and must be disposed of as medical waste in accordance with local regulations.
3. If you have any questions or suggestions during the use of this product, please contact the manufacturer.