Calcein Indicator (100×, LAMP Grade)

Cat : G1217
Size: 1mL
Storage: -20℃, avoid light, valid for 1 year.

Introduction

LAMP is a new nucleic acid amplification technology. It uses four or six primers that can identify six specific regions on the target gene, and depends on the strong chain replacement activity of Bst DNA polymerase, DNA amplification can reach 10^9~10^{10} times in 30~60 minutes. There are many LAMP detection methods, including dye method, turbidity method, electrophoresis method, and TaqMan fluorescence probe method.

The principle of calcein indicator is that a large number of pyrophosphate ions will be formed in the process of nucleic acid amplification. Pyrophosphate ions can unlock the combination of calcein and metal ions, making the fluorescent color change from orange red to chartreuse, thereby indicating the amplification.

This product contains calcein and manganese ions and can be used for fluorescence detection in constant temperature amplification reactions.

Protocols(*for reference only*)

1. Take out this product and restore it to room temperature before use.
2. Add 1/100 of the total volume of the LAMP reaction system to the LAMP amplification reaction solution. It is recommended to first use sterile water to dilute Calcein Indicator (100×, LAMP Grade)to 10×, then add 10× to the reaction system in a 10% ratio. (See note 1)
3. After preparing the reaction solution, start the reaction and observe the color change of the reaction solution.

Result

Amplification	The reaction liquid changes from orange red to chartreuse
Not Amplification	The reaction liquid is orange red

Note

1. The addition ratio of the indicator can be adjusted appropriately based on the color development of the reaction system. The recommended ratio for this product is 1:100.
2. For your safety and health, please wear laboratory clothes and disposable gloves for operation.