

LAMP Master Mix

Cat.No.: ODQ723-M01

Description: LAMP Kit provides a simple detection for loop-mediated isothermal amplification (LAMP) of target DNA in isothermal condition. 2× LAMP Premix contains *Bst* DNA Polymerase, dNTP, and Mg^{2+} . The enzyme is modified to retain 5′ → 3′ polymerase activity and strong strand-displacement activity while lacking 5′ → 3′ exonuclease activity. LAMP Kit is suitable for applications requiring thermophilic strand displacement, like Loop-Mediated Isothermal Amplification (LAMP) and well as for whole genome amplification (WGA), library building and sequencing.

Contents & Storage

Component	Volume
2× LAMP Premix	625μL
pH indicating dye (2.5mM)	50μL

Store at −20°C. Stable for 1 year.

Applications

- Isothermal DNA amplification.
- Applications requiring strand-displacement DNA synthesis.
- DNA sequencing through high GC regions.
- Rapid sequencing from nanogram amounts of DNA template.

Thermal Deactivation

Bst DNA Polymerase, Large Fragment can be deactivated by incubating at 80°C for 20 minutes.

Recommended Reaction Setup

- Mix the components as mentioned below in a PCR tube.

Component	Volume	Final Concentration
2× LAMP Premix	12.5μL	1×
FIP/BIP Primers (25X)	1μL	40μM
F3/B3 Primers (25X)	1μL	5μM
LF/LB Primers (25X)	1μL	20μM
pH indicating dye (2.5mM)	1μL	0.1mM
DNA	-	≥ 10ng
Add RNase-free Water to	25μL	

- Incubate at 65°C for 30-60 minutes.
 - Incubation time can be extended appropriately according to color change.
- Positive reaction will produce a yellow colour while the colour remains pink for a negative reaction.

Note

1. LAMP primer consists of 4 or 6 primers (including Loop primers), 25X Primers include: 40 μ M FIP, 40 μ M BIP, 5 μ M F3, 5 μ M B3, 20 μ M LF, 20 μ M LB.
2. The reaction temperature shall not exceed 70°C and cannot be used for thermal cycle sequencing or PCR instrument.