

## LAMP Master Mix

Cat.No.: ODQ723

**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	100 rxns
LAMP Master Mix	850μL
pH indicating dye (2.5mM)	200μL

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.

### Recommended Reaction Setup

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

Component	Volume	Final Concentration
LAMP Master Mix	8.5μL	
FIP/BIP Primers (25X)	1μL	1.6-3.2μM
F3/B3 Primers (25X)	1μL	0.2-0.4μM
LF/LB Primers (25X)	1μL	0.4-0.8μM
pH indicating dye (2.5mM)	2μL	
DNA	-	≥ 10 copies or more
Add RNase-free Water to	25μL	

- Incubate at 65°C for 20 – 30 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: 40μM FIP, 40μM BIP, 5μM F3, 5μM B3, 20μM LF, 20μM LB.
2. The reaction temperature shall not exceed 70°C and cannot be used for thermal cycle sequencing or PCR instrument.