

## HelixAmp™ Color RT-LAMP Lyo-Cake

### Kit Contents

HelixAmp™ Color RT-LAMP Lyo-Cake	
Cat. No.	LPSLR-C96 (96xns)
Color RT-LAMP Lyo-Cake	8-strip x 12ea
10x Color LAMP Buffer	0.3ml x 1ea
8-Cap Strip	12ea
Instructions for Use	1ea

### Description

**HelixAmp™ Color RT-LAMP Lyo-Cake** offers rapid detection of target RNA/DNA using Loop-mediated isothermal amplification (LAMP). The kit employs a pH-sensitive dye, Neutral Red, to provide visual confirmation of amplification. The lyophilized formulation ensures stability for room-temperature storage and transport. Each cake contains dNTPs,  $Mg^{2+}$ , salts, *Thermo*-stable reverse transcriptase (RTase), *Bst* DNA Polymerase, and Neutral Red dye. With an appropriate RT-LAMP primer set, it facilitates detection within 30 minutes, indicated by a visible color change.

### Application

Loop-Mediated Isothermal Amplification (LAMP) of RNA/DNA target  
Visible detection of results

### Storage

- Store at room temperature for a maximum of 6 months.
- For extended storage, keep at or below 4°C for up to 12 months.
- Protect from direct light exposure.
- After opening, reseal the pouch and store in a freezer for subsequent use.

## Quality Control

Each lot of **HelixAmp™ Color RT-LAMP Lyo-Cake** was tested against predetermined specifications to ensure consistent product quality.

## Protocol

### 1. Reaction Mixture

Add the following components to a tube containing the Color RT-LAMP Lyo-Cake and mix well:

Components	Volumes
Template <sup>1)</sup>	X $\mu$ l
Primer mix <sup>1), 2)</sup>	2 $\mu$ l
10X Color LAMP Buffer	2.5 $\mu$ l
RNase-free Water	Adjust to final 25 $\mu$ l

<sup>1)</sup> Use RNase-free Water when preparing the primer mix and diluting the template to prevent the carryover of extra buffering agents into the LAMP reaction.

<sup>2)</sup> Recommended primer concentrations per reaction:

- ◆ FIP/BIP Primers: 40 $\mu$ M/rxn
- ◆ LF/LB Primers: 20 $\mu$ M/rxn
- ◆ F3/B3 Primers: 5 $\mu$ M/rxn

Adjust primer concentrations if efficiency is low or non-specific amplification occurs.

### 2. Reaction Condition

Incubate at 60°C for 30 minutes.

If the target is amplified, the color changes from yellow to pink.

Adjusting the incubation time according to the primer set is recommended. If the color change is not obvious after a 30 minutes reaction, continue incubating at 60°C for an additional 5-10 minutes. Cool the reaction at room temperature to observe distinct color changes.

## Products

Cat. No.	Products	Size
LPSLR-C96	HelixAmp™ Color RT-LAMP Lyo-Cake	96rxns