

HelixAmp™ pH-Sensing RT-LAMP

Kit Contents

HelixAmp™ pH-Sensing RT-LAMP		
Cat. No.	PSRLMP100 (100rxns)	PSRLMP500 (500rxns)
PHR LAMP Enzyme Mix	0.2ml	0.5ml x 2ea
5x PHR LAMP Buffer (Mg-free)	0.5ml	1.25ml x 2ea
100mM MgSO ₄	0.3ml	0.8ml x 2ea
Instructions for Use	1ea	1ea

Description

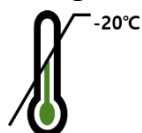
HelixAmp™ pH-Sensing RT-LAMP provides a simple detection and one-step solution for loop-mediated isothermal amplification (LAMP) of RNA targets. This kit allows simple detection of amplification using a pH-Sensing dye such as phenol red, neutral red, cresol red, etc. (not included in this kit). 5x PHR LAMP Buffer (Mg-free), 100mM MgSO₄, and PHR LAMP Enzyme Mix are provided in this kit. The buffer mix contains dNTPs and salts. The enzyme mix is a blend of engineered *Bst* DNA Polymerase, reverse transcriptase, and RNase inhibitor. Using an appropriate LAMP primer set, HelixAmp™ pH-Sensing RT-LAMP quickly detects amplification within 30 minutes.

Application

Loop-Mediated Isothermal Amplification (LAMP) of RNA

Visible detection of results

Storage



Store below -20°C

Shelf life



12 months

Quality Control

By NanoHelix's ISO 13485-certified Quality Management System, each lot of **HelixAmp™ pH-Sensing RT-LAMP** was tested against predetermined specifications to ensure consistent product quality.

Protocol

1. Reaction Mixture

Components	Volumes
Template ¹⁾	X μ l
5x PHR LAMP Buffer (Mg-free)	5 μ l
PHR LAMP Enzyme Mix	2 μ l
100mM MgSO ₄	2.25 μ l
Primer mix ²⁾	Y μ l
pH indicating dye (2.5mM) ³⁾	1 μ l
RNase-free Water	Adjust to final 25 μ l

¹⁾ Do **NOT** use buffer solution to make primer stock and template dilution. RNase-free Water is recommended.

²⁾ It is recommended that

- ◆ FIP/BIP Primers: 40 μ M/rxn.
- ◆ LF/LB Primers: 20 μ M/rxn.
- ◆ F3/B3 Primers: 5 μ M/rxn.

If there is low-efficiency or non-specific amplification, the primer concentrations should be modified.

³⁾ For the 'pH indicating dye', Phenol red, Neutral red, or Cresol red is recommended for a final concentration of 0.1mM in a reaction.

2. Reaction Condition

Incubate at 60°C for 30 minutes. If color change is not obvious, incubate at 60°C for an additional 10~15 minutes.

Cool the reaction at room temperature to observe distinct color changes.

Products

Cat. No.	Products	Size
PSRLMP100	HelixAmp™ pH-Sensing RT-LAMP	100rxns
PSRLMP500	HelixAmp™ pH-Sensing RT-LAMP	500rxns