RT-LAMP Colorimetric Master Mix

Cat.No.:HYB411

Product Description

This product contains reaction buffer, RT- Enzymes Mix (Bst DNA polymerase and heatresistant reverse transcriptase), lyophilized Protectants and chromogenic dye components. To use, just use Buffer, The reaction enzyme and primer are mixed and added to the template;adding lyophilized protectant can be straight. It was connected to a lyophilizer and lyophilized, and only the primers and templates were added when used. This kit provides a fast, clear visual detection of amplification, which negative reaction is indicated in red and positive reaction is indicated by a change to yellow.

Components

Components	96 T	960 T	9600 T
Loop-mediated Amplification Buffer(with dye)	0.96mL	4.8 mL×2	9.6 mL×10
RT-Enzymes Mix	270 μL	2.7 mL	2.7 mL×10
Lyophilized protectant	0.96 mL×2	9.6 mL×2	9.6 mL×20

Storage

Store at -25～-15℃, valid for 12 months.

Instructions

1. Thaw the reaction buffer to be used at room temperature. Vortex briefly or invert tubes several times to mix thoroughly, then centrifuge to collect the liquid to the bottom of the tube.
2. Preparation of reaction system: this reagent can be prepared in two reactionb systems, liquid reaction mix and Freeze- drying system mix.

1) Prepare liquid reaction mix

Components	Volume
Loop-mediated Amplification Buffer (with dye)	10 μ L
RT-Enzymes Mix	2.8 μ L
10×Primer Mix*	5 μ L
Template DNA/RNA**	x μ L
Nuclease-free Water	Up to 50 μ L

2) Freeze-drying system mix

① Prepare freeze-drying mix

Components	Volume
Loop-mediated Amplification Buffer (with dye)	10 μ L
Lyophilized protectant	20 μL
RT-Enzymes Mix	2.8 μL
Nuclease-free Water	Up to 50 μ L

② Freeze dry

The prepared Mix was freeze-dried in a 50μL system.

③ Prepare reaction mix

Components	**Volume**
Freeze-dried mix	1 piece
10×Primer Mix*	5 μ L
Template DNA/ RNA**	x μ L
Nuclease-free Water	Up to 50 μ L

*10 × Primer Mix Concentration: 16 μMFIP/BIP, 2 μM F3/B3, 4 μM Loop F/B;

**DEPC (water soluble) is recommended for nucleic acid templ.

3. Incubate at 65°C for 30-45min, which can be extended appropriately according to color change Reaction time.
4. According to the naked eye, yellow was positive and red was negative.

Notes

1. Salt may appear in the bottom of the buffer tube, vortex briefly or invert tubes several times to mix thoroughly at room temperature.
2. The reaction temperature can be optimized between 62 ℃ and 68 ℃ according to the condition of primers.
3. The packaged reagents should not be exposed to air for a long time.
4. The red and yellow discoloration reaction depends on the pH change of the reaction system, please do not use the containing Tris nucleic acid storage solution,recommended to use ddH_2O stored nucleic acid;
5. The experiment should be standardized, including the preparation of the reaction system, freeze-drying, and sample processing and sample adding process;

6. To avoid contamination, it is recommended to prepare thereaction system in an ultra -clean bench, in other Add templates to the fume hood of the room to avoid false positive interference.