

RT-LAMP Fluorescent Assay Kit(Bst Plus)

Product description

The RT-LAMP Fluorescent Assay Kit (Bst Plus) is a kit capable of isothermal amplification using DNA and RNA as templates. This kit employs the next-generation aptamer-encapsulated Bst Plus DNA Polymerase and heat-resistant Hifair™ III Reverse Transcriptase, along with an MRI, combined with a finely optimized buffer system, to achieve highly efficient, rapid, and highly specific detection reactions, and supports room-temperature reaction system preparation.

Specifications

Cat.No.	16729ES60 / 16729ES80
Size	100 T / 1000 T

Components

Components No.	Name	16729ES60	16729ES80
16729-A	4×LAMP Buffer	600 µL	6 mL
16729-B	Bst Plus DNA Polymerase	100 µL	1 mL
16729-C	RT Enzyme mix	50 µL	500 µL
16729-D	25×Fluorescent Dye	100 µL	1 mL

Storage

This product should be stored at -25~-15°C for 1 year. Component D must be stored away from light.

Instructions

1. Reaction system

Components No.	Name	Volume (µL)	Final concentration
16729-A	4×LAMP Buffer	6	1×
16729-B	Bst Plus HSS DNA Polymerase	1	-
16729-C	RT Enzyme mix*	0.5	-
16729-D	25×Fluorescent Dye**	1	1×
	Primer mix***	2	-
	Template****	X	-
	Nuclease-Free Water	up to 25	

[Note]:*RT Enzyme mix: Depending on experimental requirements, this component may be omitted when using DNA as a template;

**25×Fluorescent Dye: This dye is SYTO-9;

***Primer mix: The recommended primer combination is 20 µM FIP/BIP, 2.5 µM F3/B3, and 10 µM LoopF/Loop B. The optimal ratio of primer combinations may be adjusted based on test results;

****Template: 1) Reagents and templates should be prepared in separate areas to prevent contamination; 2) It is recommended to prepare the reaction system first and add the template last; 3) Before running the reaction, to prevent cross-contamination of products, mineral oil (Yeasen catalog number: 61260ES60) can be added for capping before detection.

2. Reaction conditions

Steps	Temperature	Time	Cycle number
1	63-65°C	1 min*	30-60**
2	95°C	3 min	1
3	Melting curve***		

[Note]:*For dye-based instruments, select SYBR™ Green Reagents mode and collect signals in the SYBR channel.

**Optimize the number of cycles based on the target and primers used for detection.

***This step can be added as needed using the instrument's default program.

Notes

1. White precipitation may appear when the reagent is thawed. Hold the EP tube in your hand and allow the reagent to dissolve slowly, then gently invert it up and down to mix until the solution is clear.
2. For your safety and health, please wear a lab coat and disposable gloves when operating.
3. This product is for scientific research purposes only!