

Catalog number	C15033-1ML		
Set package	Cat.	Name	Amount
	C15033-1ML	2X Fluorescent RT-LAMP Master Mix	1 mL
		50X LAMP Fluorescent Dye	40 μ L
Description	<p>Croyez 2X Fluorescent RT-LAMP Master Mix is an optimized master mix for reverse-transcription loop-mediated isothermal amplification (RT-LAMP) reactions. This product is a dual enzyme system, providing a rapid and sensitive detection in one pot. A fluorescent dye is also supplied with the kit. The LAMP reactions can be monitored through real-time fluorescence detection.</p>		
Storage	<p>Stored at -20°C. Protect from light. Avoid repeated freeze/thaw cycles.</p>		

The following procedure is a general guideline for RT-LAMP reaction. To maintain an RNase-free environment, always wear disposable gloves, and use laboratory consumables and water of nuclease-free grade during the whole experiment course. **RT-LAMP reaction set-up:**

- 10X LAMP primer mix

Component	10X concentration	Final concentration
FIP	16 μ M	1.6 μ M
BIP	16 μ M	1.6 μ M
F3	2 μ M	0.2 μ M
B3	2 μ M	0.2 μ M
LOOP F	8 μ M	0.8 μ M
LOOP B	8 μ M	0.8 μ M

Manual

- An overview of the reaction set-up is listed in the table below. Place all required reagents **on ice**. Distribute appropriate volumes into each tube before adding template.

Component	Amount	Final concentration
2X Fluorescent RT-LAMP Master Mix	12.5 μ L	1X
10X LAMP primer mix	2.5 μ L	1X
50X LAMP Fluorescent Dye	0.5 μ L	1X
RNA template	1-2 μ L	variable
Nuclease-Free H₂O	X μ L	-
Total reaction volume	μ L	-

* See Usage Notes for additional guidelines on primer/template preparation.

3. Add target RNA template to the detection tube. Gently mix the reaction thoroughly to achieve uniform distribution and avoid making bubbles.
4. Incubate at 65°C for 30-60 min.
5. After LAMP reaction complete, the enzyme can be inactivated by heating at 80°C for 10 min.
6. For real-time detection, collect fluorescent data using the SYBR® or FAM channels.

Usage Notes***Primer concentration***

Primer concentration can be titrated between 0.25X – 1X if undesired background signal appeared.

Reaction mixture preparation

Fluorescent dye should be freshly added to the reaction mixture.

For Research Use Only.