WizPure™ LAMP Master

RUO For Research Use Only

REF W1800

DESCRIPTION
WizPure™ LAMP Master is a highly efficient and ready-to-use premix for loop-mediated isothermal amplification (LAMP) assay. The master mix contains a DNA polymerase, optimized reaction buffer, and dNTPs.

KIT CONTENTS

Contents	W1800	W1800-4
WizPure™ LAMP Master	1.25 ml	4 X 1.25 ml
100mM MgSO4	250 ul	1 ml

ACTIVITY
- 5'→3' exonuclease: No
- 3'→5' exonuclease: No
- Strand Displacement: Yes

APPLICATIONS
- Loop-mediated isothermal amplification (LAMP)

STORAGE CONDITIONS
Store all components at -20°C in a non-frost-free freezer.

NOTE
Do not contaminate the WizPure™ LAMP Master kit with primers and template DNA used in individual reactions. Thaw and mix all components thoroughly, spin down shortly, and chill on ice.

QUALITY CONTROL ANALYSIS:
In accordance with Wizbiosolutions Inc. ISO 13485-certified Quality Management System, each lot WizPure™ LAMP Master kit is tested against predetermined specifications to ensure consistent product quality.

ORDERING INFORMATION

Product	Cat No.	Package
WizPure™ LAMP Master	W1800	100 rxn
	W1800-4	400 rxn

RECOMMENDED PROTOCOL
Prior to the experiment, it is prudent to carefully optimize experiment conditions and to include controls at every stage. See pre-protocol considerations for details.
This standard protocol applies to a single reaction where only template, primers, and water need to be added to the LAMP Kit. For multiple reactions, scale up the volume of reaction components proportionally. All reagents can be prepared at room temperature

1. Thaw reagents at room temperature. Mix thoroughly and then place on ice immediately after thawing.
2. Assemble reaction tubes on ice whenever possible to avoid premature, nonspecific polymerase activity.
3. The following table shows recommended component volumes:

LAMP REACTION MIXTURE PREPARATION

Component	25 µl reaction	Final Conc.
LAMP Master	12.5 µl	1X
FIP Primer (10 µM)	2 - 5 µl	0.8 - 2.0 µM
BIP primer (10 µM)	2 - 5 µl	0.8 - 2.0 µM
F3 primer (10 µM)	0.5 - 1 µl	0.2 - 0.4 µM
R3 primer (10 µM)	0.5 - 1 µl	0.2 - 0.4 µM
Loop F (10 µM)	1 - 2 µl	0.4 - 0.8 µM
Loop B (10 µM)	1 - 2 µl	0.4 - 0.8 µM
100mM $MgSO_4$	2 - 2.5 µl	8 - 10 mM
Green fluorescence dye (25X)*	1 µl	1X
Template DNA	1 - 5 µl	
Distilled water	up to 25 µl	

* For Real-time fluorescence assay only

4. Ensure reactions are mixed thoroughly by pipetting or gentle vortexing followed by a brief spin in a microcentrifuge.

<u>For Conventional LAMP Assay</u>
1. Transfer tubes on ice into an isothermal instrument or water bath.
2. Incubation 62°C for 30-60 min.
   NOTE: Assay conditions may need to be optimized, depending on different primer and template combinations.
3. Run 5µ of the amplification product on a 1.5% agarose gel.

<u>For Conventional LAMP Assay</u>
1. Transfer tubes to a Real-time assay instrument (eg, Real-time PCR machine)
2. Real-time LAMP program setting and running as follows,
   - Incubation temperature: 62°C
   - Time: 30-60 min (Scan/1 min).
   - Detection channel: SYBR green (FAM)

Technical Support

www.wizbiosolution.com
support@wizbiosolution.com
+82 70 7605 5066

Wizbiosolutions Inc.
A-802, Woolim Lions Valley 2
Sagimakgol-ro 45beon-gil 14
Jungwon-gu, Seongnam-si, Gyeonggi-do
13209 Republic of Korea

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