

# Lyo-Ready™ LAMP Mix

## Product Handling Guide

Shipping:	On dry/blue ice
Catalog number:	MDX097
Batch No.:	See vial
Concentration:	4x

Store at -20 °C



### Storage and stability:

Lyo-Ready™ LAMP Mix is shipped on dry or blue ice. On arrival store at -20 °C for optimum stability. Repeated freeze/thaw cycles should be avoided. Solutions should be mixed/equilibrated after each thawing to avoid phasing.

### Expiry:

When stored under the recommended conditions and handled correctly, full activity of the kit is retained until the expiry date on the outer box label.

### Safety precautions:

Read and understand the SDS (Safety Data Sheets) before handling the reagents. Hardcopies of the SDS will be provided with the first shipment, thereafter they will be available upon request.

### Quality control:

Meridian operates under ISO 13485 Quality Management System. Lyo-Ready™ LAMP Mix and its components are extensively tested for activity, processivity, efficiency, heat activation, sensitivity, absence of nuclease contamination and absence of nucleic acid contamination.

### Notes:

For research or further manufactured use only.

## Description

Lyo-Ready™ LAMP Mix is a glycerol-free mix for isothermal applications such as loop-mediated isothermal amplification (LAMP). It contains Bst DNA Polymerase (exo-), reaction buffer, dNTP and provided with lyo-excipients allowing ambient temperature stabilization of assays through lyophilization. Lyo-Ready™ LAMP Mix has been designed for amplification of DNA targets. In order to produce lyophilized ambient-temperature stable LAMP assays, specific primers are added to Lyo-Ready™ LAMP Mix for subsequent lyophilization.

## Kit components

Table 1

Component
Lyo-Ready™ LAMP Mix, 4x

## Users Guidelines

Thawing during transportation does not affect the product performance. Prior to use or storing at -20 °C, the thawed reagents must be thoroughly mixed by 10 inversions.

Please note that this mix does not contain magnesium. We suggest using 8 mM MgSO<sub>4</sub> as starting concentration in reaction. However, this might require optimization depending on the assay. It is advised to optimise Mg<sup>++</sup> concentration.

## Suggested LAMP reaction conditions:

The following protocol is for a standard 25 µL LAMP reaction to be used as a starting point for optimization.

Table 1

Reagent	Volume	Final Concentration (1x)
Lyo-Ready Bst Mix, 4x	6.25 µL	1x
MgSO <sub>4</sub> (100 mM) (not supplied)	2 µL	8 mM
FIP/BIP Primers (25x)	1 µL	1.6 µM*
F3/B3 Primers (25x)	1 µL	0.2 µM*
Loop F/B Primers (25x)	1 µL	0.8 µM*
Sample DNA	variable	> 10 copies
Water (ddH <sub>2</sub> O)	to 25 µL	

\* Primer concentration and ratio need be optimized

Incubate at 65 °C for 60 minutes.

## General Guidelines

Lyo-Ready™ LAMP Mix 4 x is compatible with fluorescence detection methods such as intercalating dyes (e.g. SYTO-82) and fluorescent probes.

If analysing the LAMP products requires opening the reaction tubes, it is strongly recommended to carry out the analysis in a separate/designated area to avoid contamination.

It is recommended to include a no-template control (NTC) to verify product specificity.

## Lyophilization

For lyophilization protocols, please consult our "Lyophilization & Post-Lyophilization User Guideline."

## Associated Products

Component	Cat. No.
Bst DNA Polymerase (8 U/µL)	MDX012
High Conc. Glycerol-Free Bst	MDX018
Lyo-Ready™ RT-LAMP Mix	MDX108
Air-Dryable™ DNA LAMP	MDX119
Air-Dryable™ RNA/DNA LAMP	MDX118

## Technical Support

For any technical enquiries, please contact our Technical Support team via email at: [mbi.tech@meridianlifescience.com](mailto:mbi.tech@meridianlifescience.com)