

# Lyo-Ready™ Direct DNA LAMP Urine

## Product Handling Guide

Shipping:	On dry/blue ice
Catalog number:	MDX154
Batch No.:	See vial
Concentration:	4x

Store at -20 °C



### Storage and stability:

Lyo-Ready™ Direct DNA LAMP Urine is shipped on 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™ Direct DNA LAMP Urine and its components are extensively tested for activity, sensitivity, absence of nuclease contamination and absence of nucleic acid contamination.

### Notes:

For research or further manufactured use only.

## Description

Lyo-Ready™ Direct DNA LAMP Urine 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 excipients allowing ambient temperature stabilization of assays through lyophilization.

Lyo-Ready™ Direct DNA LAMP Urine has been designed for amplification of DNA targets directly from crude urine samples. In order to produce an ambient -temperature stable LAMP reaction mix, specific primers can be added to Lyo-Ready™ Direct DNA LAMP Urine prior to lyophilization. The mix tolerates the effects of inhibitors present in crude urine samples, meaning that the dried pellet can be rehydrated with crude urine samples.

## Kit components

Table 1

Component
Lyo-Ready™ Direct DNA LAMP Urine, 4x

## Users Guidelines

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

Please note that this mix **does not** contain magnesium sulphate (MgSO<sub>4</sub>), the concentration required with this mix has been optimised to be 8 mM in the final reaction, however, customers are advised to optimise the concentration of MgSO<sub>4</sub> for their individual assay needs.

## Suggested LAMP reaction conditions:

The following protocol is for a standard 20 µL LAMP reaction and is to be used as a starting point for optimization.

Table 2

Reagent	Volume	Final Concentration (1x)
Lyo-Ready™ Direct DNA LAMP Urine, 4x	5 µL	1x
MgSO <sub>4</sub> 100 mM (not supplied)	1.6 µL	8 mM
FIP/BIP Primers (20x)	1 µL	1.6 µM*
F3/B3 Primers (20x)	1 µL	0.2 µM*
Loop F/B Primers (20x)	1 µL	0.8 µM*
Sample DNA	variable	> 10 copies
Water (ddH <sub>2</sub> O)	To 20 µL	

\* Primer concentration and ratio need be optimized.

Incubate at 65 °C for 60 minutes.

**The amount of inhibition tolerated by Lyo-Ready™ Direct DNA LAMP Urine is variable depending on several factors, including assay design and sample quality. For this reason, an initial sample titration is recommended.**

Lyo-Ready™ Direct DNA LAMP Urine is compatible with fluorescence detection methods such as intercalating dyes (e.g. SYTO-82).

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 and Post-Lyophilization User Guideline".

## Associated Products

Product	Cat. No.
Lyo-Ready™ LAMP Mix	MDX097
Lyo-Ready™ RT-LAMP 1-Step Mix	MDX108
Air-Dryable™ DNA LAMP	MDX119
Air-Dryable™ RNA/DNA LAMP	MDX118
Lyo-Ready™ Direct DNA LAMP Saliva	MDX134
Lyo-Ready™ Direct RNA/DNA LAMP Saliva	MDX135
Lyo-Ready™ Direct RNA/DNA LAMP Urine	MDX155

## Technical Support

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