

# Air-Dryable™ RNA/DNA-LAMP

## Product Handling Guide

Shipping:	On dry/blue ice
Catalog number:	MDX118
Batch No.:	See vial
Concentration:	4x

Store at -20 °C



### Storage and stability:

Air-Dryable™ RNA/DNA-LAMP 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. Air-Dryable™ RNA/DNA-LAMP 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

Air-Dryable™ RNA/DNA-LAMP is a glycerol-free mix for isothermal applications such as Loop-Mediated Isothermal Amplification (LAMP). It contains Reverse Transcriptase, Bst-DNA Polymerase (exo-), reaction buffer, dNTP and air-dryable compatible excipients. This is a robust master mix for loop-mediated isothermal amplification (LAMP) reactions, has been designed for amplification of RNA and DNA targets. In order to produce air-dried ambient-temperature stable RT-LAMP and LAMP, assay specific primers are added to Air-Dryable™ RNA/DNA-LAMP for subsequent air drying.

## Kit components

Table 1

Component
Air-Dryable™ RNA/DNA-LAMP, 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 sulfate (MgSO<sub>4</sub>), the concentration required with this mix has been optimised to be 4 mM in final reaction, however costumers are advised to optimise the concentration of MgSO<sub>4</sub> for their individual assay needs.

## Typical RT- LAMP and LAMP reaction conditions:

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

Table 2

Reagent	Volume	Final Concentration (1x)
Air-Dryable™ RNA/DNA-LAMP, 4x	6.25 µL	1x
MgSO <sub>4</sub> (100 mM) (not supplied)	1 µL	4 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 RNA/DNA	variable	> 10 copies
Water (ddH <sub>2</sub> O)	to 25 µL	

\* primers concentration needs to be optimised

Incubate at 65 °C for 60 minutes.

## Air-drying

For air-dryable protocols, please consult our "Air-Dryable User Guideline".

## General Guidelines

Air-Dryable™ RNA/DNA-LAMP, 4x is compatible with fluorescence detection methods such as intercalating dyes (e.g. SYTO-82) and fluorescent probes.

If analysing the RT-LAMP/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.

## Associated products

Products	Cat. No.
Bst DNA Polymerase (8 U/µL)	MDX012
High Conc. Glycerol-Free Bst	MDX018
Lyo-Ready™ LAMP Mix, 4x	MDX097
Lyo-Ready™ RT-LAMP 1-Step Mix, 4x	MDX108

## Technical Support

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