

Lyo-Ready AOF dUTP RNA/DNA LAMP

Product Handling Guide

Shipping:	On dry/blue ice
Catalog number:	MDX302
Batch No.:	See vial
Concentration:	4x

Store at -20 °C

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Storage and stability:

Lyo-Ready AOF dUTP 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. Lyo-Ready AOF dUTP RNA/DNA LAMP and its components are extensively tested for activity, processivity, efficiency, sensitivity, and absence of nucleic acid contamination.

Notes:

For research or further manufactured use only.

Description

Lyo-Ready AOF dUTP RNA/DNA LAMP is a glycerol-free mix for use in loop-mediated isothermal amplification (LAMP). It combines the latest advances in buffer chemistry and reaction enhancers, together with an optimized concentration of strand-displacing polymerase, reverse transcriptase, dNTPs and proprietary lyo-excipients allowing ambient temperature stabilization through lyophilization.

Lyo-Ready AOF dUTP RNA/DNA LAMP contains dUTP and has been designed for fast, sensitive and highly reproducible RNA and DNA target amplification. In order to produce lyophilized ambient-temperature stable LAMP assays, specific primers need to be added to Lyo-Ready AOF dUTP RNA/DNA LAMP prior to lyophilization. Lyo-Ready AOF dUTP RNA/DNA LAMP does not contain Mg⁺⁺, which must be added prior to the amplification.

Kit components

Table 1

Component
Lyo-Ready AOF dUTP RNA/DNA LAMP, 4x
100 mM Magnesium Sulfate (MgSO ₄) Solution*

* Only supplied with small pack sizes

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 briefly vortexing.

Please note that this mix does not contain magnesium. The concentration required with this mix has been optimised to be 5 mM in final reaction, however customers are advised to optimise the concentration of magnesium for their individual assay needs.

Suggested LAMP reaction conditions:

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

Table 2

Reagent	Volume	Final Concentration
Lyo-Ready AOF dUTP RNA/DNA LAMP, 4x	5 µL	1x
MgSO ₄ (100 mM)	1 µL	5 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 ₂ O)	to 20 µL	

* Primer concentration and ratio need be optimized

Incubate at 65 °C for 60 minutes.

General Guidelines

Lyo-Ready AOF dUTP RNA/DNA LAMP, 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 "Lyo-Cakes and Lyo-Beads Production and Post-Lyophilization User Guideline".

Associated Products

Related Product	Cat. No.
Bst DNA Polymerase (8 U/µL)	MDX012
High Conc. Glycerol-Free Bst	MDX018
Lyo-Ready AOF dUTP DNA LAMP	MDX301
Lyo-Ready LAMP Mix	MDX097
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

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