

Lyo-Ready 1-Step RT-qPCR Mix

Product Handling Guide

Shipping:	On Dry/Blue Ice
Catalog number:	MDX024
Batch No.:	See vial
Concentration:	2x

Store at -20 °C



Storage and stability:

Lyo-Ready 1-Step RT-qPCR Mix is shipped on dry/blue ice. On arrival store at -20 °C for optimum stability. Repeated freeze/thaw cycles should be avoided. Thawing during transportation does not affect the product performance. 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:

Bioline operates under ISO 13485 Quality Management System. Lyo-Ready 1-Step RT-qPCR 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:

This reagent has been manufactured under 13485 Quality Management System and is suitable for further manufacturing use as an IVD component.

Description

Lyo-Ready 1-Step RT-qPCR Mix is a glycerol-free qPCR mix containing Taq polymerase, reaction buffer, dNTP, MgCl₂ and lyo-exipients and separate reverse transcriptase and dilution buffer. In order to produce room temperature lyophilized RT-qPCR reagents, assay specific primers and probes are added to Lyo-Ready 1-Step RT-qPCR Mix for subsequent lyophilization.

Kit components

Table 1

Component
Lyo-Ready 1-Step RT-qPCR Reaction Mix, 2x
Lyo-compatible MMLV-RT*
Enzyme Dilution Buffer, 10x

Users Guidelines

Prepare the following working solutions immediately prior to formulating RT-PCR mix:

- 1x Enzyme Dilution Buffer
 - Dilute Enzyme Dilution Buffer 10-fold in nuclease-free water
- 100x Lyo-compatible MMLV-RT
 - Dilute Lyo-compatible MMLV-RT* to 6 U/μL in 1x Enzyme Dilution Buffer

*Enzyme concentration is provided in the Lyo-compatible MMLV-RT Certificate of Analysis

Master mix preparation

Recommended reagent volumes per 20 μL RT-qPCR mix are given in Table 2.

Table 2

Reagent	Volume
Lyo-Ready 1-Step RT-qPCR Reaction Mix, 2x	10 μL
100x Lyo-compatible MMLV-RT**	0.2 μL
Primer-Probe Mix, 20x	1 μL
Water	x μL
Total volume	Up to 20 μL

**Lyo-Compatible MMLV-RT suggested concentration in the final reaction is 0.06 U/μL

Dispense into reaction vials and immediately transfer into a freeze-dryer and run a suitable drying cycle.

For long-term storage at ambient temperatures, the lyophilized product from the freeze-dryer should be packaged at low relative humidity conditions.

Assay setup

Rehydrate the lyophilized RT-qPCR mix in the reaction vials with 20 μL template-containing solution and run RT-qPCR.

The RT-qPCR conditions in Table 3 are suitable for amplicons of up to 200 bp. These cycling parameters have been optimized for Lyo-Ready 1-Step RT-qPCR Mix on a number of platforms, however they can be varied to suit different machine-specific protocols.

Table 3

Step	Temperature	Time	Cycles
Reverse transcription	45 °C - 50 °C	10 min	1
Polymerase activation	95 °C	2 min	1
Denaturation	95 °C	5 s	45
Annealing/Extension	60 °C	20 s	

Technical Support

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

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