

# 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, RNase Inhibitor, reaction buffer, dNTP, MgCl<sub>2</sub> and Lyo-excipients 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               |
| <b>Total volume</b>                       | <b>Up to 20 μL</b> |

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

\*\*Lyo-

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](mailto:mbi.tech@meridianlifescience.com)

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