

# Lyo-Ready™ Direct RNA/DNA qPCR BloProduct Handling Guide

Shipping:	Blue Ice
Catalog number:	MDX123
Batch No.:	See vial
Concentration:	4x

Store at -20 °C



## Storage and stability:

Lyo-Ready™ Direct RNA/DNA qPCR Blood is shipped on 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:

Meridian operates under ISO 13485 Quality Management System. Lyo-Ready™ Direct RNA/DNA qPCR Blood and 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

Lyo-Ready™ Direct RNA/DNA qPCR Blood is a glycerol-free one tube formulation combining the latest advances in buffer chemistry and PCR enhancers, together with an optimized concentration of antibody-mediated hot-start polymerase, reverse transcriptase, RNase Inhibitor, dNTPs and MgCl<sub>2</sub>. Lyo-Ready™ Direct RNA/DNA qPCR Blood has been designed for highly reproducible, accurate RNA and DNA target amplification, delivering excellent results in multiplex assays, even in the presence of crude respiratory tract samples. In order to produce room temperature lyophilized RT-qPCR reagents, assay specific primers and probes can be added to Lyo-Ready™ Direct RNA/DNA qPCR Blood for subsequent lyophilization.

## Kit components

Table 1

Component
Lyo-Ready™ Direct RNA/DNA qPCR Blood, 4x

## Users Guidelines

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

## Master mix preparation

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

Table 2

Reagent	Volume
Lyo-Ready™ Direct RNA/DNA qPCR Blood, 4x	5 µL
Primer-Probe Mix, 20x	1 µL*
<b>Total volume</b>	<b>6 µL</b>

\* Primer and probe concentration need be optimized

Dispense into reaction vessels, immediately transfer into a freeze-drier and run a suitable drying cycle.

For long-term storage at ambient temperatures, the lyophilized product from the freeze-dryer should be packaged with silica desiccant in a heat sealed pouch at low relative humidity conditions.

## Assay setup

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

The RT-qPCR conditions in Table 3 are suitable for amplicons of up to 200 bp. These cycling parameters are compatible with Lyo-Ready™ Direct RNA/DNA qPCR Blood on a number of platforms, however they can be varied to suit different detection assay and 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	

\* When multiplexing, the reverse transcription reaction time can be extended up to 20 minutes and the annealing/extension time can be extended up to 60 seconds and/or the annealing/extension temperature can be increased up to 65° C.

## Associated products

Component	Cat. No.
Air-Dryable™ Direct DNA qPCR Blood	MDX092
Air-Dryable™ Direct RNA/DNA qPCR Blood	MDX121
Lyo-Ready™ Direct DNA qPCR Blood	MDX122
Lyo-Ready™ Direct DNA qPCR Saliva	MDX132
Lyo-Ready™ Direct RNA/DNA qPCR Saliva	MDX133

## Technical Support

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