

# Lyo-Ready AOF dUTP RNA/DNA qPCR Blood

## Product Handling Guide

Shipping:	Blue Ice
Catalog number:	MDX323
Batch No.:	See vial
Concentration:	4x

Store at -20 °C



### Storage and stability:

Lyo-Ready AOF dUTP 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 AOF dUTP RNA/DNA qPCR Blood and its components are extensively tested for activity and sensitivity.

### Notes:

For research and further manufacturing use only.

## Description

Lyo-Ready AOF dUTP RNA/DNA qPCR Blood is a glycerol-free one tube formulation free of animal-origin ingredients. It combines the latest advances in buffer chemistry and PCR enhancers, together with an optimized concentration of antibody-mediated hot-start polymerase, reverse transcriptase, RNase Inhibitor, a dNTP/dUTP mix and MgCl<sub>2</sub>. Lyo-Ready AOF dUTP 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 blood samples. In order to produce lyophilized RT-qPCR reagents, assay specific primers and probes can be added to Lyo-Ready AOF dUTP RNA/DNA qPCR Blood for subsequent lyophilization. The mix is suitable for high-throughput assays where there is a greater risk of false positives from cross-over contamination.

## Kit components

Table 1

Component
Lyo-Ready AOF dUTP RNA/DNA qPCR Blood, 4x

## Users Guidelines

### Master mix preparation for lyophilization

Recommended reagent volumes for preparing the master mix for lyophilization, based on a 20 µL RT-qPCR reaction, are provided in Table 2.

Table 2

Reagent	Volume
Lyo-Ready AOF dUTP RNA/DNA qPCR Blood, 4x	5 µL
Primer-Probe Mix, 20x*	1 µL
Water	Up to 10 µL

\* Primer and probe concentrations must be optimized

For preparation of lyo-cakes, dispense into reaction vials, such as PCR strip tubes or plates, and immediately transfer into a freeze-dryer and run a suitable lyophilization cycle (See: Lyophilization and Post-lyophilization User Guideline).

For preparation of lyo-beads, dispense the liquid master mix into liquid nitrogen and immediately transfer into a freeze-dryer and run a suitable lyophilization cycle (See: Lyo-bead production and Post-lyophilization User Guideline).

For long-term storage at ambient temperatures, the lyophilized product from the freeze-dryer should be packaged with a silica sachet 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 and run the RT-qPCR reaction.

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 AOF dUTP RNA/DNA qPCR Blood 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	

\* 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.
Lyo-Ready AOF dUTP DNA qPCR Blood, 4x	MDX322
Lyo-Ready AOF dUTP DNA qPCR Saliva, 4x	MDX332
Lyo-Ready AOF dUTP RNA/DNA qPCR Saliva, 4x	MDX333
Lyo-Ready AOF dUTP DNA qPCR Urine, 4x	MDX352
Lyo-Ready AOF dUTP RNA/DNA qPCR Urine, 4x	MDX353