

Liquid Stable Ready DNA qPCR Mix

Product Handling Guide

Shipping:	At ambient temperature (<25 °C)
Catalog number:	MDX364
Batch No.:	See vial
Concentration:	5x

Store at -20 °C

Storage and stability:

Liquid Stable Ready DNA qPCR Mix is shipped at ambient temperature (<25 °C). On arrival, store at -20 °C before use. Repeated freeze/thaw cycles should be avoided. Solutions should be mixed/equilibrated after each thawing to avoid phasing.

Safety precautions:

Read and understand the SDS (Safety Data Sheets) before handling the reagents. The SDS (Safety Data Sheets) are available upon request.

Quality control:

Meridian operates under ISO 13485 Quality Management System. Liquid Stable Ready DNA qPCR Mix is tested functionally before its release (see Test Release document).

Notes:

For research or further manufactured use only.



Description

Liquid Stable Ready DNA qPCR Mix is a combination of the latest advances in buffer chemistry and PCR enhancers and stabilizers, together with an antibody-mediated hot-start polymerase and containing dUTP. Liquid Stable Ready DNA qPCR Mix has been designed to enable pre-assembled qPCR assay (MDX364 + assay oligonucleotides) to be stable for at least 12 months at ambient temperature. In addition, it has been optimized for highly reproducible and accurate assay, delivering exceptional performance in multiplex assays, even under fast thermal cycling conditions. Liquid Stable Ready DNA qPCR Mix formulation is compatible to applications where reduction of false positives from cross-over contamination is critical.

Kit components

Table 1

Component
Liquid Stable Ready DNA qPCR Mix, 5x
MgCl ₂ Solution, 50 mM

Users Guidelines

Preparation of pre-assembled qPCR assay for ambient temperature storage

Under aseptic condition and using sterile plasticware, assemble Liquid Stable Ready DNA qPCR Mix with assay oligonucleotides. Recommended reagent volumes per 1 reaction of 20 µL qPCR mix are given in Table 2. To minimize evaporation, we recommend to avoid large empty volume in the storage vessel and ensure that it is properly sealed/closed.

Table 2

Reagent	Volume/rxn
Liquid Stable Ready DNA qPCR Mix, 5x	4 µL
Oligonucleotide Mix, 20x*	1 µL

* Primer and probe concentrations are assay-dependent and must be optimized by the user.

The pre-assembled assay can now be stored at ambient temperature (<25 °C) away from light. If stored correctly, the mix will retain full activity for up to a year.

Technical Support

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

Assay setup

At the time of test, add the DNA template and MgCl₂ to the pre-assembled Assay Ready qPCR assay. The recommended final concentration of MgCl₂ is 6 mM in 1x reaction. MgCl₂ can be added to the reaction together with the template as described in Table 3a, or separately as long as the final concentration in the reaction 1x is 6 mM as described in Table 3b.

Table 3a

Reagent	Volume
Pre-assembled Assay Ready qPCR assay, 4x	5 µL
DNA template (containing 6 mM MgCl ₂)	15 µL
Total volume	Up to 20 µL

Table 3b

Reagent	Volume
Pre-assembled Assay Ready qPCR assay, 4x	5 µL
MgCl ₂ Solution, 50 mM	2.4 µL
DNA template	As required
Water	As required
Total volume	Up to 20 µL

The qPCR conditions in Table 4 are suitable for amplicons of up to 200 bp. These cycling parameters have been optimized for Liquid Stable Ready DNA qPCR Mix on a number of platforms, however they can be varied to suit different machine-specific protocols. Always include non-template controls, to monitor the potential occurrence of false-positive amplifications.

Table 4

Step	Temperature	Time	Cycles
Polymerase activation	95 °C	2 min	1
Denaturation	95 °C	5 s	45
Annealing/Extension*	60 °C	20 s	

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