

Lyo-Ready Non-Bac DNA qPCR Mix

Product Handling Guide

Shipping:	Blue Ice
Catalog number:	MDX362
Batch No.:	See vial
Concentration:	4x

Store at -20 °C



Storage and stability:

Lyo-Ready Non-Bac DNA qPCR 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 Non-Bac DNA qPCR and its components are extensively tested for activity, sensitivity and absence of DNA contamination.

Notes:

For research and further manufacturing use only.

Description

Lyo-Ready Non-Bac DNA qPCR Mix is a one-tube, animal-origin-free formulation combining optimized buffer chemistry, PCR enhancers, dNTPs (including dUTP), MgCl₂, and Glycerol-Free Non-Bac HS Taq Polymerase (HC). This highly thermostable, recombinant antibody-mediated hot-start polymerase is produced in a eukaryotic system, ensuring it is free of *E. coli* DNA contamination making the mix ideal for sensitive, low-copy DNA amplification and multiplex assays. In order to produce room temperature lyophilized qPCR reagents, assay specific primers and probes can be added to Lyo-Ready Non-Bac DNA qPCR fMix or 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 Non-Bac DNA qPCR Mix, 4x

User Guidelines

Master mix preparation for lyophilization

Recommended reagent volumes for the preparation of master mix per 20 µL qPCR reaction are given in Table 2.

Table 2

Reagent	Volume
Lyo-Ready Non-Bac DNA qPCR Mix, 4x	5 µL
Primer-Probe Mix, 20x*	1 µL
Water	Up to 10 µL

* Primer and probe concentration 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.

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: Lyophilization & Post-Lyophilization User Guideline: Lyo-Cakes and Lyo-Beads).

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 PCR master mix in the reaction vials with 20 µL template-containing solution and run the qPCR reaction.

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

Table 3

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

* The annealing/extension temperature must be optimised based on assay design. For multiplexing, the time can also be increased up to 60 seconds

Associated Products

Component	Cat. No.
Glycerol-Free Non-Bac Taq Polymerase (HC)	MDX252
Lyo-Ready AOF dUTP DNA qPCR Blood, 4x	MDX322
Lyo-Ready AOF dUTP DNA qPCR Saliva, 4x	MDX332
Lyo-Ready Non-Bac DNA qPCR Blood Mix, 4x	MDX342
Lyo-Ready AOF dUTP DNA qPCR Urine, 4x	MDX352

Technical Support

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