1-Step qPCR Buffer
Product Handling Guide

Shipping:	On Dry or Blue Ice
Catalog number:	MDX034
Batch No.:	See vial
Concentration:	4x

Store at –20 °C

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Storage and stability:
1-Step qPCR Buffer is shipped on dry or 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. 1-Step qPCR Buffer 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

1-Step qPCR Buffer is a combination of the latest advances in buffer chemistry together with enhancers and stabilizers. The final mix still requires addition of dNTPs and $MgCl_2$. 1-Step qPCR Buffer has been designed for highly reproducible, accurate reverse transcription followed by qPCR in a single tube under fast thermal cycling conditions, delivering excellent results in fast RT-qPCR assays.

Kit components

Table 1

Component
1-Step qPCR Buffer, 4x

Users Guidelines

Master mix preparation

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

Table 2

Reagent	Volume
1-Step qPCR Buffer, 4x	5 µL
$MgCl_2$ Solution, 50 mM*	1.2 µL
dNTP Mix Solution, 100 mM**	0.2 µL
Hot-Start Taq DNA Polymerase***	1 µL
100x MMLV-RT****	0.2 µL
Primer-Probe Mix, 20x	1 µL
Water	x µL
Total volume	**Up to 20 µL**

**The described amount of $MgCl_2$ is indicative.*
***We recommend using a high-quality dNTP Mix, such as dNTP Mix, 100mM MDX051*
****We recommend using a high-quality polymerase such as Taq HS DNA Polymerase MDX008*
*****We also recommend using a high-quality reverse transcriptase such as MMLV-RT MDX044*

Assay setup

The RT-qPCR conditions in Table 3 are suitable for amplicons of up to 200 bp. These cycling parameters have been optimized for fast 1-Step RT-qPCR 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	

Related Products	Cat. No.
Taq HS DNA Polymerase	MDX008
MMLV-RT	MDX044
dNTP Mix, 100mM	MDX051

Technical Support

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

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