qPCR Extraction Control

Catalog numbers

Batch : See vial		
	MDX026-10 2000 Rxn	qPCR Extraction Control Red (Brown cap)
	MDX027-10 2000 Rxn	qPCR Extraction Control Orange (Yellow cap)

Store at –20 °C

Storage and stability:
qPCR Extraction Control is shipped on dry/blue ice. All kit components should be stored at -20°C upon receipt. Excessive freeze/thawing is not recommended.

Expiry:
When stored under the recommended conditions and handled correctly, quality is retained until the expiry date on the outer box label.

Genotype:
F⁻ *deo*R *end*A1 *rec*A1 *rel*A1 *gyr*A96 *hsd*R17(r_K^-, m_K^+) *sup*E44 *thi*-1 *pho*A Δ(*lac*ZYA-*arg*F)U169 Φ80/*lac*ZΔM15 λ⁻ pBR322 (ranseqb1 AmpR)

Quality Control:
The qPCR Extraction Control is extensively tested for quality and the absence of contamination.

Safety Precautions:
Please refer to the material safety data sheet for further information.

Notes:
For research use only.

Features

- Easy validation of DNA extraction protocols
- Minimal interference with sample detection
- Includes a ready-to-use reaction mix for easy setup
- Suitable for use with blood, urine and sputum starting samples

Applications

- Monitoring of DNA extraction process in real-time PCR assays

Description

The qPCR Extraction Control enables users of diagnostic assays to validate both their extraction and qPCR. Cells of a known concentration, containing the Internal Control DNA sequence are spiked into the sample tissue and DNA from the sample tissue and the qPCR Extraction Control is simultaneously extracted.

Signal derived from the Internal Control DNA confirms the success of the extraction step and, as a known concentration of cells are added, qPCR Extraction Control also monitors co-purification of PCR inhibitors that may cause biased or false amplification patterns.

Reagent	500 Reactions	2000 Reactions
Internal Control DNA	5 x 500 µL	20 x 500 µL
Control Mix	5 x 100 µL	20 x 100 µL

Components

Recommended Protocol

All steps should be carried out at room temperature unless otherwise stated. Conditions may vary from reaction to reaction, and may need optimisation.*

Extraction step

1. Thaw and brief spin down all tubes before opening.
2. Vortex the internal control tube thoroughly to ensure complete mixing.
3. Add 5 µL of internal control DNA solution per sample to be added to your lysis buffer. For batch extraction, please ensure homogeneity of the lysis buffer/Internal control mixture before loading onto samples for uniform result. The remaining internal control DNA solution can be stored at 4 °C.
4. Follow the manufacturer's protocol for sample DNA extraction.

Post-extraction set up

Component	Supplied	Volume
2x PCR Mastermix	No	12.5 µL
Target Probe/Primer mix	No	X µL
Sample DNA from extraction step	No	X µL
Control Mix (brown cap)	Yes	1 µL
Total Volume (for 1 reaction)		25 µL

2. Program amplification conditions as follows:

Cycles	Temperature	Duration	Notes
1	95 °C	10 min	Activation
30-40	95 °C	15 s	Denaturation
	Annealing Temperature	30-60 s	Annealing/Extension/ Acquisition

3. Acquire DNA Internal Control fluorescence signal on the appropriate channel (i.e. qPCR Extraction Control Red (Quasar 670 - emission wavelength = 670 nm), qPCR Extraction Control Orange (Cal Fluor Orange - emission wavelength = 560 nm).**

* We recommend that the user performs a validation step to ensure that no cross-reactivity exists between the user's primers and the Internal Control DNA. The likelihood of such cross-reactivity is negligible.

** Ct of the internal control may vary due to elution volume of nucleic acid, use of mastermix, number of multiplex etc.

Associated Products

Product	Pack size	Cat. No.
ISOLATE II Genomic DNA Kit	10 Preps	BIO-52065
ISOLATE II Plant DNA Kit	10 Preps	BIO-52068
SensiFAST Probe No-ROX Kit	500 reaction	BIO-86005

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