# PCR decontamination kit

## Rapid removal of contaminating DNA in PCR mastermixes, without reduction in PCR sensitivity

The PCR decontamination kit uses a dsDNase to remove contaminating DNA from mastermixes. The double-strand specific property allows decontamination in the presence of primers and probe.The dsDNase is irreversibly inactivated by heating to 60°C in the presence of DTT, ensuring that DNA template added to the mastermix after inactivation will not be digested. The mastermix can be used immediately after decontamination to run PCR reactions.

AMPIGENE® Taq polymerases have been treated to remove host DNA and additional clean-up is not necessary. The PCR decontamination kit is recommended for decontamination of primers or competitor's PCR mixes.

Polymerases used in PCR are frequently contaminated with *E. coli* DNA. Contaminating DNA may cause reduced sensitivity and false positives when small amounts of bacterial DNA are targeted. Other sources of contamination might be dNTPs, buffer components and primers / probes, as well as DNA introduced during handling. The PCR decontamination kit is an easy method to eliminate DNA contamination.

**Citations:** 1 View Online »

## Ordering Information Order Online »

| | |
|---|---|
| **ENZ-KIT137-0100** | 100Reactions |

## Manuals, SDS & CofA View Online »

- Removes DNA contamination from PCR mastermixes
- Improves target detection by reducing background
- Does not effect PCR sensitivity
- Optimized for PCR and probe based qPCR mixes

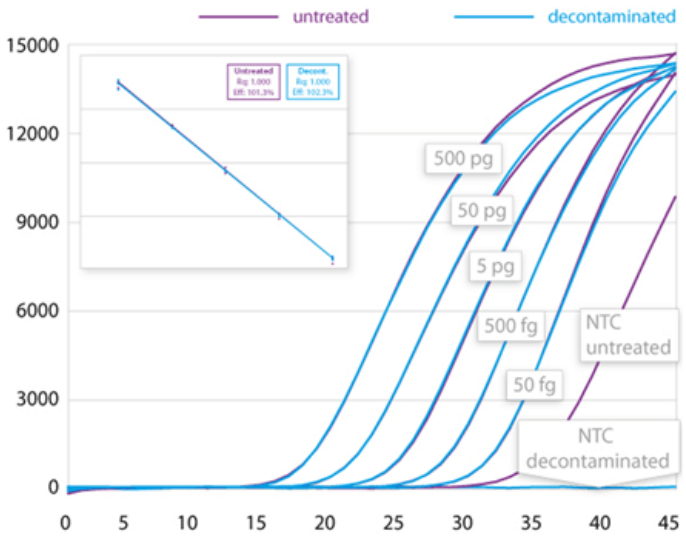


Fig 2. Untreated and decontaminated qPCR 2x master mix was used for analysis of an E. coli gDNA 10-fold serial dilution with 5 steps. NTC samples were included, and all plots of the serial dilution show an average of three replicates. Inset: Standard curves calculated from Cq values obtained from analysis of serial dilution.

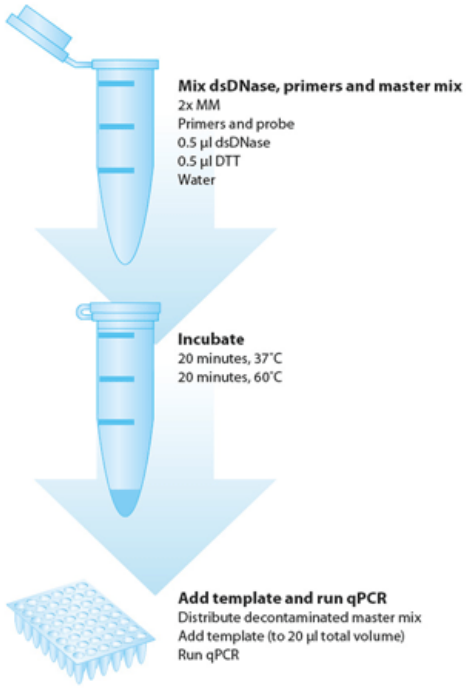


Fig 3. Simple workflow for decontamination

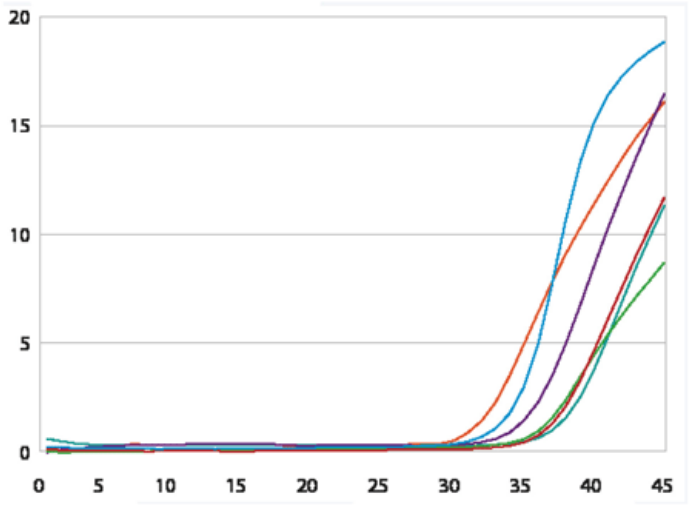


Fig 1. The presence of E. coli 23S DNA in 2x probe master mixes from various suppliers was quantified by using water as template (NTC) and following the manufacturer's instructions. The figure shows plots acquired from several separate experiments. Traces of E. coli 23S DNA were found in all master mixes tested, with Cq values generally ranging from 30 – 35.

## Handling & Storage

**Short Term Storage** -20°C

**Long Term Storage** -20°C

**Shipping** Blue Ice

## Regulatory Status RUO - Research Use Only

## Product Details

**Application Notes**

For the removal of contaminating DNA from primers and mastermixes prior to PCR.

**Contents**

Heat-labile dsDNase
DTT

**Technical Info / Product Notes**

The PCR decontamination kit is not recommended for use with high fidelity PCR buffers. High fidelity PCR buffers typically contain high salt concentration, low magnesium concentration, and high pH which reduce the activity of dsDNase.

**UniProt ID**

C9YSL6_PANBO

**Last modified: May 29, 2024**

ENZO LIFE SCIENCES, INC.
Phone: 800.942.0430
info-usa@enzolifesciences.com

European Sales Office
ENZO LIFE SCIENCES (ELS) AG
Phone: +41 61 926 8989
info-eu@enzolifesciences.com

Belgium, The Netherlands & Luxembourg
Phone: +32 3 466 0420
info-be@enzolifesciences.com

France
Phone: +33 472 440 655
info-fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-de@enzolifesciences.com

UK & Ireland
Phone (UK customers): 0845 601 1488
Phone: +44 1392 825900
info-uk@enzolifesciences.com