

UptiReverse cDNA/DNA Polymerase

Product Description

Catalog number:	UPS53941	UPS53951	UPS53961
Product description:	25 rxn	50 rxn	100 rxn

Also available in Mg free buffer (UPS5398), and as gel form (#UPS5409)

Storage: -20 °C (liquid form)

Scientific and Technical Information

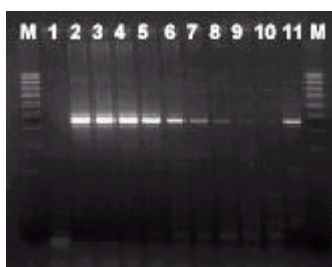
Source and description

- Recombinant and modified cDNA/DNA Polymerase from *Thermus thermophilus* HB27, cloned and purified from *E. coli* using nonchromatographic methods. Lot to lot reproducibility.
- The enzyme has been modified in order to increase its reverse transcription activity, while retaining the polymerase activity.
- No RNase H activity is associated with the reverse transcriptase activity.
- Reverse transcription is performed at high temperatures (65 °C or 70 °C), so secondary structures present in RNA are avoided, increasing overall efficiency of the reaction.
- Reverse transcription and amplification are performed in one single vial, using an enzyme. Manipulation, and therefore contamination, is reduced.
- Radioactively **labelled dNTPs**, as well as biotin, fluorescein, and digoxigenin-labelled dNTPs (including dUTP) can be used as substrates.
- The kit can be used with total RNA (10 pg – 1 µg) or mRNA (1 pg – 100 ng), using specific primers, random primers or oligodT (alternative protocol).
- The kit contains all necessary reagents (enzyme, buffers, dNTPs) for performance of the reaction.

Quality control

Each lot is carefully controlled to ensure the absence of non-specific endonucleases, as well as 3' – 5' exonuclease, RNase, first strand cDNA synthesis and nicking activities. Lot to lot reproducibility is guaranteed.

Figure 1. mRNA from rat liver was extracted using UptiRNAPure kit (Cat. No. UPS54671). Different dilutions of the starting mRNA material ranging from 100 ng to 1 pg were reverse transcribed into cDNA using specific primers from actin (6 pmoles), in 15 min at 65 °C. An amplification reaction was performed following the protocol during 35 cycles, and the samples (10 µl) were loaded in a Agarose HR 2 % TBE gel (Cat. No. UPS54191). Retrotools is able to detect specific fragments using down to 1 pg in 35 cycles of amplification, with a high specificity. The amplification yields are equivalent or even better than the M-MLV used as a control (lane 5 vs. lane 11).



For any question,
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