qScript[®] XLT One-Step RT-PCR Kit

Tough-tested One-Step Reverse Transcriptase PCR (RT-PCR) in a simplified, 2-component reagent system.

FEATURES AND BENEFITS:

- ToughMix[®] reagent technology withstands PCR inhibitors commonly found in plant and animal tissues, environmental sources, clinical specimens and complex food matrices
- Optional GelTrack dye streamlines workflow for gel electrophoresis
- Temperature stabilized for support reaction assembly at convenient ambient room temperatures
- Preblended with ribonuclease inhibitor protein to preserve RNA integrity during incubation
- 3'-exonuclease proof-reading polymerase supports high-fidelity downstream applications
- Suitable for TA subcloning large RNA sequences exceeding 4 kb in length

DESCRIPTION:

The qScript XLT One-Step RT-PCR Kit is a convenient and highly sensitive 2-reagent system for amplification of complex RNA templates exceeding 4 kb in length. Both enzyme incubation sequences are carried out in the same reaction mixture without opening between procedures. Advanced qScript XLT reverse transcriptase mutant possesses elevated temperature stability and improved template binding affinity for large complex RNA templates. Supports a wide-range of challenging starting materials with PCR-inhibitor neutralizing ToughMix additives and delivers consistent, reliable assay performance. Ultrapure AccuStart II hot-start Taq DNA polymerase with 3'-exonuclease proof-reading activity provides stringent activation control for sensitive and precise target amplification.

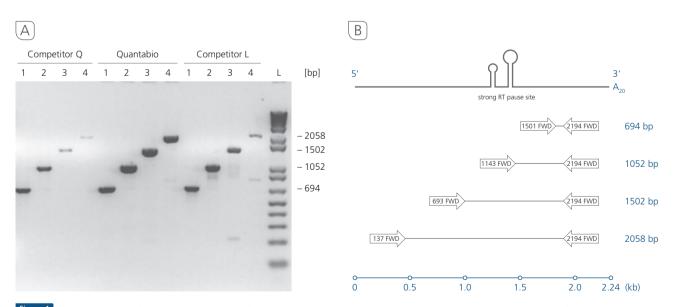


Figure 1 One-Step RT-PCR of varying length amplicons from 2.2 kb TcR in vitro transcript RNA. Each kit was used according to the manufacturer's recommended procedure in 20 µl reaction volumes containing 200 µM each primer and 1x 10⁵ copies of an in vitro synthesized run-off transcript for the tetracyclin resistance gene (TcR), produced using T7 RNA polymerase. Following first-strand synthesis and activation of the hot-start Taq polymerase, all reactions were amplified for 30 cycles of 94°C, 15 s; 60°C, 20 s; 72°C, 2 min followed by a final hold of 5 min at 72°C. 1/5th of each reaction was analyzed on a 0.8% agarose, 0.5x TBE gel conatining 0.25 mg/ml ethidium bromide.



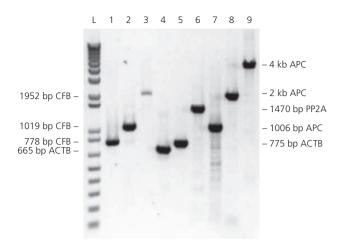


Figure 2 One-Step RT-PCR of varying length fragments from HeLa cell total RNA. RT-PCR program: 48°C 20 min; 94°C, 3 min; 94°C, 15 s; 60°C 15 s; 68°C, 2 min; 35 cycles. ACTB = 2 ng HeLa total RNA, all others 20 ng HeLa total RNA Load 5 μ l of 20 μ l rxn on 0.8% gel.

$$\label{eq:cfb} \begin{split} \mathsf{CFB} &= \mathsf{Complement} \; \mathsf{Factor} \; \mathsf{B} \\ \mathsf{PP2A} &= \mathsf{Protein} \; \mathsf{phosphatase} \; \mathsf{2A} \\ \mathsf{ACTB} &= \beta \text{-actin} \\ \mathsf{APC} &= \mathsf{Adenomatous} \; \mathsf{polyposis} \; \mathsf{coli} \end{split}$$

ORDER INFO

Product Name

qScript XLT One-Step RT-PCR Kit - 20 R qScript XLT One-Step RT-PCR Kit - 200 R Quantabio Catalog Number 95143-020 95143-200 Size

20 x 25 μl rxns 200 x 25 μl rxns

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Quantabio products are intended for molecular biology applications. The products are not intended for the diagnosis, prevention or treatment of a disease. MK-SF-0028 REV 01 qScript XLT RT-PCR 0918

