qScript® XLT 1-Step RT-PCR Kit

Tough-tested 1-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 1-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.

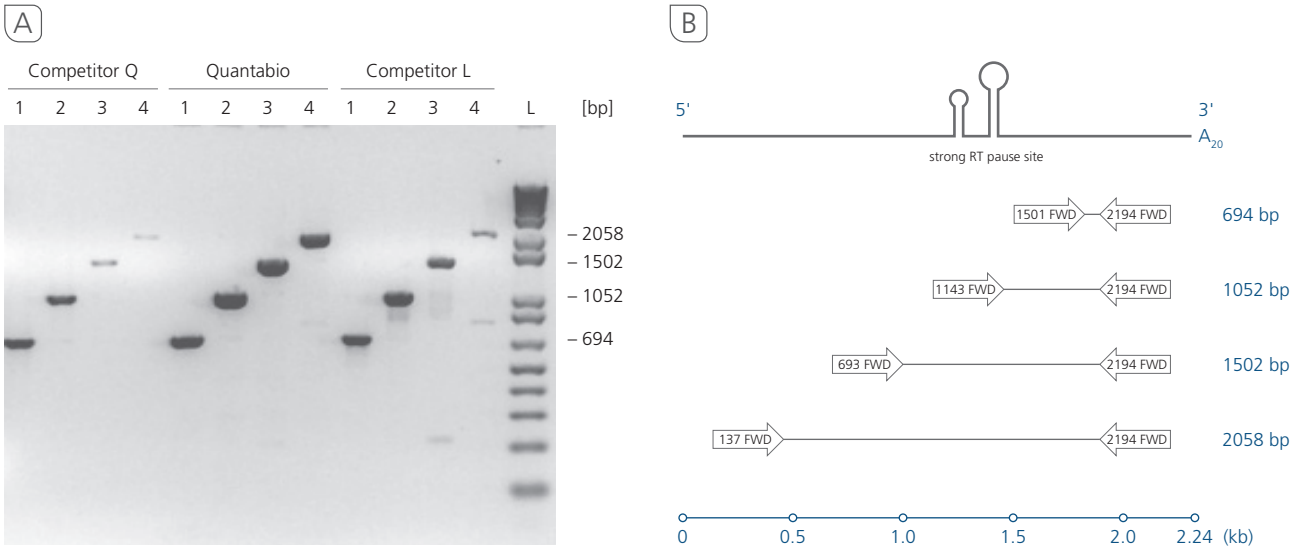

Figure 1 **One-Step RT-PCR of varying length amplicons from 2.2 kb TcR in vitro transcript RNA.** Each kit was used according to the manufacturer's recommended procedure in 20 µl reaction volumes containing 200 µM each primer and 1x 10^5 copies of an in vitro synthesized run-off transcript for the tetracyclin 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.

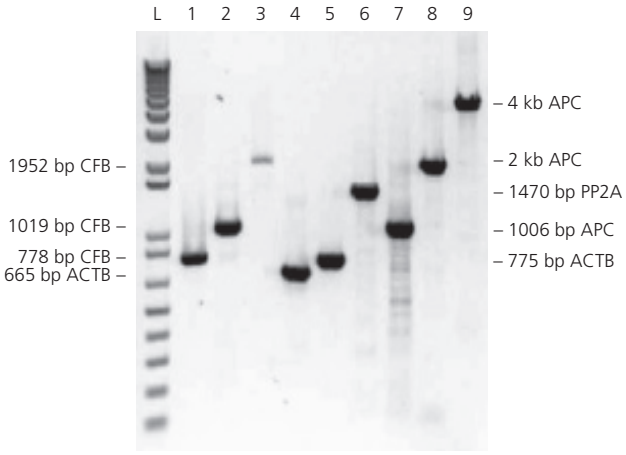

Figure 2 **1-Step RT-PCR of varying length fragments from HeLa cell total RNA.** RT-PCR program: 48°C 20 min; 94°C, 3 min; 94°C, 15 s; 60°C 15 s; 68°C, 2 min; 35 cycles. ACTB = 2 ng HeLa total RNA, all others 20 ng HeLa total RNA Load 5 µl of 20 µl rxn on 0.8% gel.

CFB = Complement Factor B
PP2A = Protein phosphatase 2A
ACTB = β-actin
APC = Adenomatous polyposis coli

ORDER INFO

Product Name	Quantabio Catalog Number	Size
qScript XLT 1-Step RT-PCR Kit - 20 R	95143-020	20 x 25 µl rxns
qScript XLT 1-Step RT-PCR Kit - 200 R	95143-200	200 x 25 µl rxns

MK-SF-0028 REV 02 qScript XLT RT-PCR 0121