

New from OEM by QIAGEN: StableScript, efficient reverse transcriptase



18 November 2021 | Opinion | By Partner Content

Do you need an efficient reverse transcriptase as OEM? Learn more about StableScript™ – designed for one-step RT-qPCR and long-range RT-PCR with increased thermostability.

Need reverse transcriptase
with improved thermostability?

GET STABLESCRIPT™

Sample to Insight



New from OEM by QIAGEN: **StableScript™**, an off-the-shelf sensitive and efficient reverse transcriptase provided in bulk. It is designed for use in one-step RT-qPCR and long-range PCR and demonstrates high sensitivity for RNA detection. With increased thermostability it can also help you overcome difficult RNA targets.

To grow your business, unblocking supply-chain bottlenecks is a top priority. This is where making the right “make or buy” decision is key to your success. Learn more about StableScript and the OEM by QIAGEN enzyme portfolio. Allow us to help



Features:

- Versatile
- Designed for use in one-step RT-qPCR and long-range reverse transcription
- Demonstrates high sensitivity for RNA detection
- Enhanced processivity
- Improved inhibitor resistance
- Increased thermostability

Polymerase properties:

- Optimum extension temperature: 55°C
- Transcription length: 12.3 kB
- Molecular weight: 115,035 Daltons

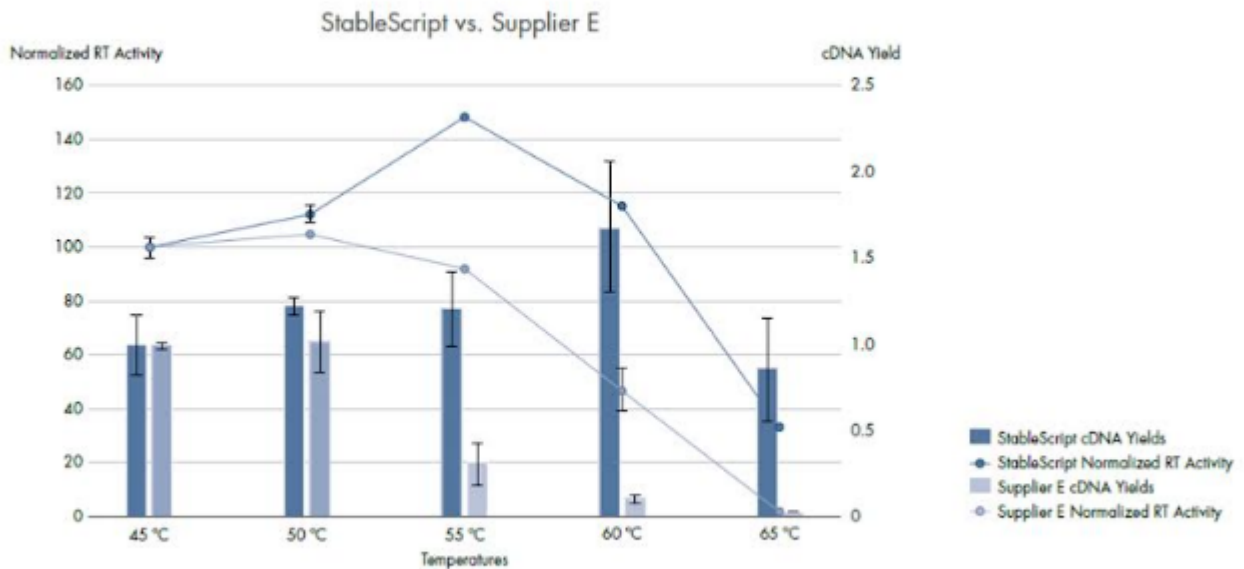
Highlights:

Increased thermostability

StableScript enables high cDNA yields and performs well at different temperatures (45° to 65°C)

Active across a broad range of temperatures

Temperature profile – active from 45°C to 65°C – optimal 55°C



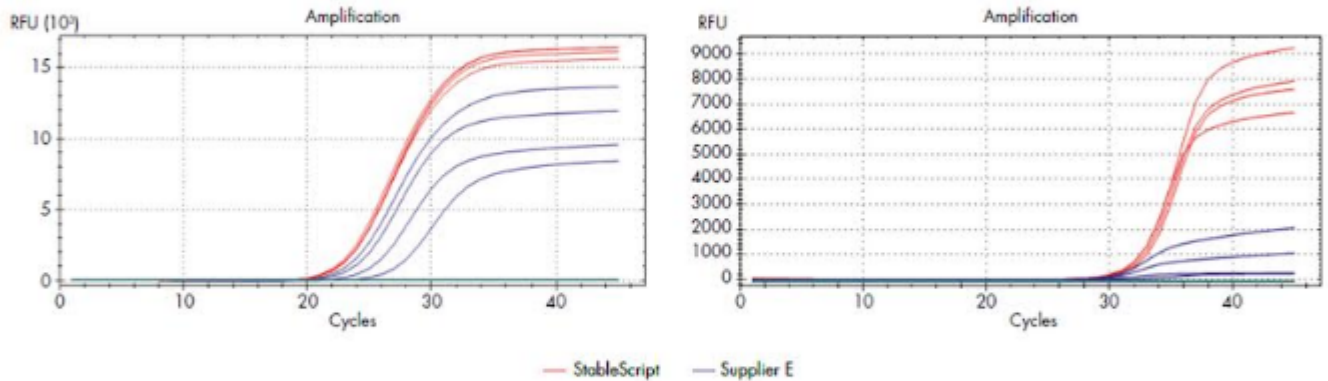
Reverse transcriptase activity was measured with poly(A) templates at different temperature (45° to 65°C). Fluorescence was measured on the Step One Plus qPCR instrument and the slope in the initial linear range for each temp was plotted as its activity. All activities were normalized to the activity at 45°C.

Maintained sensitivity

StableScript™'s increased thermostability helps to overcome detection challenges of difficult RNA targets.

Maintained sensitivity in your assay one-step RT-qPCR reaction

Increased thermostability helps to overcome difficult RNA targets because RNA structures unravel and are less likely to prevent amplification.



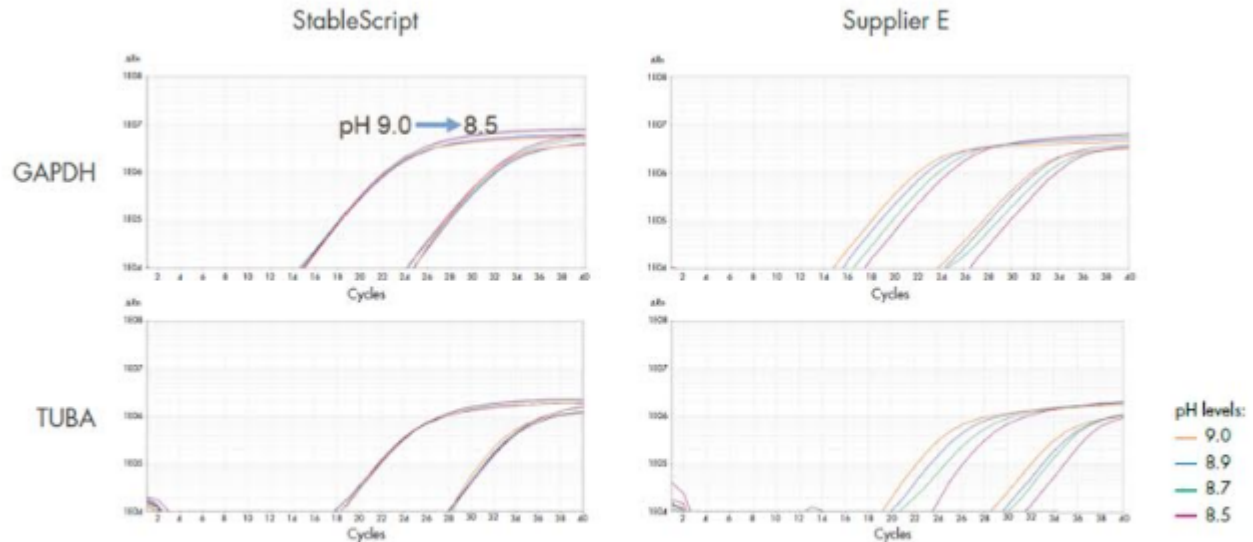
The performance of **StableScript** was compared to Supplier E in a one-step RT-qPCR system targeting ACTB. The reverse transcription temperature was done across a gradient of 50°C to 60°C at both 1000 pg (left image) and 1 pg (right image) of total human RNA on a CFX qPCR instrument.

StableScript maintained its amplitude across the temperature gradient while Supplier E lost amplitude with the increase in temperature.

Robust performance against common inhibitors and varying pH

StableScript demonstrates reliable performance across a pH range of 8.5 to 9.0. It also maintains performance in the presence of common inhibitors.

StableScript maintains performance across a wide pH range



The buffer pH tolerance of **StableScript** was compared to **Supplier E**, across a pH range of 8.5 to 9.0, in one-step RT-qPCR system targeting either human GAPDH or TUBA using 5 ng or 10 pg, of total human RNA on a QuantStudio 7 qPCR instrument.

Benefits:

- Active across a broad range of temperatures
- Fast results even for long-range amplification
- Maintains performance across a wide pH range
- Robust RT-qPCR performance in the presence of common inhibitors
- Enhanced sensitivity and dynamic range in one-step RT-qPCR
- Compatible with lyophilized samples
- Exceptional lot-to-lot consistency

A versatile reverse transcriptase designed for use in one-step RT-qPCR and long-range RT-PCR. It demonstrates high sensitivity for RNA detection, improved thermostability, processivity and inhibitor resistance over first-generation M-MLV Reverse Transcriptase RNase H minus. For more information, read our [interactive brochure](#) or visit our [product webpage](#).

[Download interactive brochure](#) [Visit our product webpage](#)