

Product Information	
qScript® One-Step Fast qRT-PCR Kit	
Part Number	95079-500
Number of Reactions	500 Reactions
Reaction Size	20 µL
Storage Temperature	-25°C to -15°C
Lot Number	66208855
Reference Number	040522, 081021
Expiration Date	08/30/2024

Product Description:

The qScript One-Step Fast qRT-PCR Kit is a convenient and highly sensitive solution for reverse transcription quantitative PCR (RT-PCR) of RNA templates using hybridization probe detection chemistries such as TaqMan™ 5'-hydrolysis probes or molecular beacons on Applied Biosystems 7000, 7300, 7700, 7900HT StepOne™, or StepOnePlus™ instruments. cDNA synthesis and PCR amplification are carried out in the same tube without opening between procedures. It is ideal for highly sensitive quantification of RNA viruses or low abundance RNA targets as well as high throughput gene-expression studies. The system has been optimized to deliver maximum RT-qPCR efficiency, sensitivity, and specificity in reduced reaction volumes and fast cycle times.

The One Step Fast Master Mix is provided as a 4X concentrated solution to allow addition of higher amounts of RNA template and improved detection sensitivity with low concentration samples. The unique formulation maximizes the activities of both reverse transcriptase and Taq DNA polymerase while minimizing the potential for primer-dimer and other non-specific PCR artifacts. This enables unbiased co-amplification of low copy transcripts in the presence of higher copy reference genes in duplexed RT-qPCR applications.

Component Part Numbers:

- 84100 qScript One-Step Fast RT, 0.50mL
- 84104 1-Step Fast MasterMix (4X), 1.25mL
- 84007 Nuclease Free Water, 1.50mL

Product Specifications			
95079			
Assay	B-actin qScript 1-Step Fast qRT PCR Functional Assay	DNase	RNase
Result	Pass	Pass	Pass

Quality Control Analysis and Specifications:

Nuclease Assay

DNase: DNase activity must be below the detectable limits of 100 pg DNase I equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

RNase: RNase activity must be below the detectable limits of 1 pg RNase A equivalent as assayed using a fluorogenic substrate following a 1 hour incubation at 37°C with each kit component at 1X concentration.

B-actin qScript 1-Step Fast qRT PCR Functional Assay: Real-time One-Step RT-PCR of a reference gene (ACTB) in triplicate reactions is performed on a 10 fold serial dilution over 6 orders of dynamic range (1.0 pg to 1.0 µg) using a Universal Reference total RNA preparation. Slope from Ct standard curve analysis between -3.20 and -3.65. No Template Control below the threshold for at least two replicates.

Limitations of Use

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This product was developed, manufactured, and sold for *in vitro* use only. The product is not suitable for administration to humans or animals. SDS sheets relevant to this product are available upon request.