Product Information	
qScript One-Step SYBR Green qRT-PCR Kit for iQ	
Part Number	95086-200
Number of Reactions	200 Reactions
Reaction Size	25 µL
Storage Temperature	-25°C to -15°C
Lot Number	023379
Reference Number	016402, 011217
Expiration Date	09/30/2019

Product Description:

The qScript One-Step SYBR Green RT-qPCR Kit is a convenient and highly sensitive solution for quantitative RT-PCR of RNA templates (RT-qPCR) using SYBR Green I dye detection and gene-specific primers. cDNA synthesis and PCR amplification are carried out in the same tube without opening between procedures. The proprietary reaction buffer has been specifically formulated to maximize activities of both reverse transcriptase and Taq DNA polymerase while minimizing the potential for primer-dimer and other non-specific PCR artifacts. This reagent is compatible with both fast and standard qPCR cycling protocols. Precise amplification is essential for successful RT-qPCR with SYBR Green I technology since this dye binds to all dsDNA generated during amplification. This 1-step reagent contains ultra-pure AccuStart™ hot start Taq DNA polymerase that is completely arrested prior to the initial PCR denaturation step. Upon heat activation at 95°C, the antibodies are rapidly and irreversibly denatured, releasing a fully active high-yielding Taq DNA polymerase mutant.

Component Part Numbers:

84022 qScript 1-Step RT 0.05 mL
84007 Nuclease Free Water 1.5 mL
84138 1-Step SYBR Green Master Mix for iQ 1.25 mL

Product Specifications				
95086				
Assay	**GAPDH qScript 1-Step RT PCR**	**1-Step qRT-PCR Functional Assay**	**DNase**	**RNase**
Result	Pass	Pass	Pass	Pass

Quality Control Analysis and Specifications:

GAPDH qScript 1-Step RT PCR Functional Assay Must have detection of GAPD gene from 1.0 pg to 100 ng of Universal Human Reference RNA. The Ct standard curve analysis must have a coefficient of determination (R^2) ≥ 0.990 with a slope between -3.20 to -3.65. No template controls below threshold for at least two replicates.

1-Step qRT-PCR Functional Assay: Detection of ACTB gene from 1.0 pg to 1.0 µg of UHR RNA. Ct standard curve analysis must have a coefficient of determination R^2 ≥ 0.990 with a slope between -3.20 and -3.65. No template controls below threshold for two of the four replicates.

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.

Limitations of Use

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.