

| Product Information                     |  |
|---|--|
| <b>qScript® MicroRNA cDNA Synthesis</b> |  |
| Part Number                             | 95107-025  |
| Number of Reactions                     | 25 Reactions                                     |
| Reaction Size                           | 20 µL  |
| Storage Temperature                     | -25°C to -15°C                                   |
| Lot Number                              | 023881   |
| Reference Number                        | 012517, 061217, 051717, 031317, 160550828, 17752 |
| Expiration Date                         | 09/30/2018                                       |

**Product Description:**

The qScript microRNA cDNA Synthesis Kit is an optimized reagent system that reverse transcribes small single-stranded RNA into 5'-labeled cDNA using either total RNA or miRNA enriched samples.

Single-stranded RNA is first polyadenylated by poly(A) polymerase before reverse transcription into universal cDNA using high performance qScript RT with a proprietary adapter oligo(dT) primer. The universal cDNA template enables simple and cost-effective microRNA profiling when used together with wet-lab validated PerfeCta microRNA Assays, PerfeCta Universal PCR Primer and PerfeCta SYBR Green SuperMix.

**Component Part Numbers:**

- 84001 qScript RT 0.025 mL
- 84172 Poly (A) Tailing Buffer (5X)
- 84174 Poly (A) Polymerase
- 84176 MicroRNA cDNA Reaction Mix
- 84178 PerfeCta Universal PCR Primer
- 84180 PerfeCta Human Positive Control Primer
- 84007 Nuclease Filled Water 1.50 mL

| Product Specifications |                                     |  |       |       |
|------------------------|-------------------------------------|--|-------|-------|
| 95107                  |                                     |  |       |       |
| Assay                  | qScript microRNA cDNA Synthesis Kit | β-actin SYBR Green qRT-PCR Assay for qScript Reverse Transcriptase | DNase | RNase |
| Result                 | Pass                                | 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.

**qScript microRNA cDNA Synthesis Kit** Must have detection of microRNA from 100 ng to 10 pg. Correlation of determination ( $R^2$ )  $\geq$  0.990 from Ct standard curve analysis. Slope from Ct standard curve analysis between -3.20 and -3.75. The +PAP reactions must show a  $\geq$  11 Ct difference from the “no-PAP” reactions. There must be at least three negative template controls with “undetermined” values.

**β-actin SYBR Green qRT-PCR Assay for qScript Reverse Transcriptase:** Detection of β-actin mRNA from 100ng to 100fg of total RNA. Coefficient of determination ( $R^2$ )  $\geq$  0.990 with a slope analysis between -3.20 and -3.70

**Limitations of Use**

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