

Product Information	
<b>qScript® One-Step Fast qRT-PCR Kit, ROX™</b>	
<b>Part Number</b>	95080-500
<b>Unit Size</b>	500 x 20- $\mu$ L Rxn.
<b>Storage Temperature</b>	-25°C to -15°C
<b>Lot Number</b>	019849
<b>Expiration Date</b>	11/30/2019

**Product Description:**

The qScript One-Step Fast qRT-PCR Kit, ROX is a convenient and highly sensitive solution for reverse transcription quantitative PCR (RT-qPCR) 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, ROX 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

Product Specifications			
95080			
Assay	Real-time quantitative RT-PCR	DNase	RNase
<b>Result</b>	Pass	Pass	Pass

**Component Part Numbers:**

- 84100: qScript One-Step Fast RT
- 84106: One-Step Fast MasterMix, ROX (4X)
- 84007: Nuclease-Free Water

**Quality Control Analysis and Specifications:**

**Real-time quantitative RT-PCR:** 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  $\mu$ g to 1 pg) using a Universal Reference total RNA preparation. Cq standard curve analysis must have coefficient of determination ( $r^2$ )  $\geq$ 0.990 with a slope between -3.20 and -3.60. Control reactions lacking template RNA (NTC) must remain below fluorescence threshold through 45 PCR cycles.

**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.

**Limited Label Licenses:**

Use of this product is covered by one or more of the following US patents and corresponding patent claims outside the US: 5,804,375, 5,538,848, 5,723,591, 5,876,930, 6,030,787 and 6,258,569. The purchase of this product includes a limited, non-transferable immunity from suit under the foregoing patent claims for using only this amount of product for the purchaser's own internal research. No right under any other patent claim and no right to perform commercial services of any kind, including without limitation reporting the results of purchaser's activities for a fee or other commercial consideration, is conveyed expressly, by implication, or by estoppel. This product is for research use only. Diagnostic uses under Roche patents require a separate license from Roche. Further information on purchasing licenses may be obtained from the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.

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**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.