

BioRT All-in-One RT Master Mix for qPCR (+gDNA Wiper)



Product Introduction

BioRT All-in-One RT Master Mix for qPCR (+gDNA Wiper) is a new-generation qPCR-specific reverse transcription kit. It integrates genomic DNA removal and RNA reverse transcription components in a single tube. Simply add RNA template and nuclease-free water to start the reaction, completing both DNA removal and reverse transcription in as little as 5 minutes.

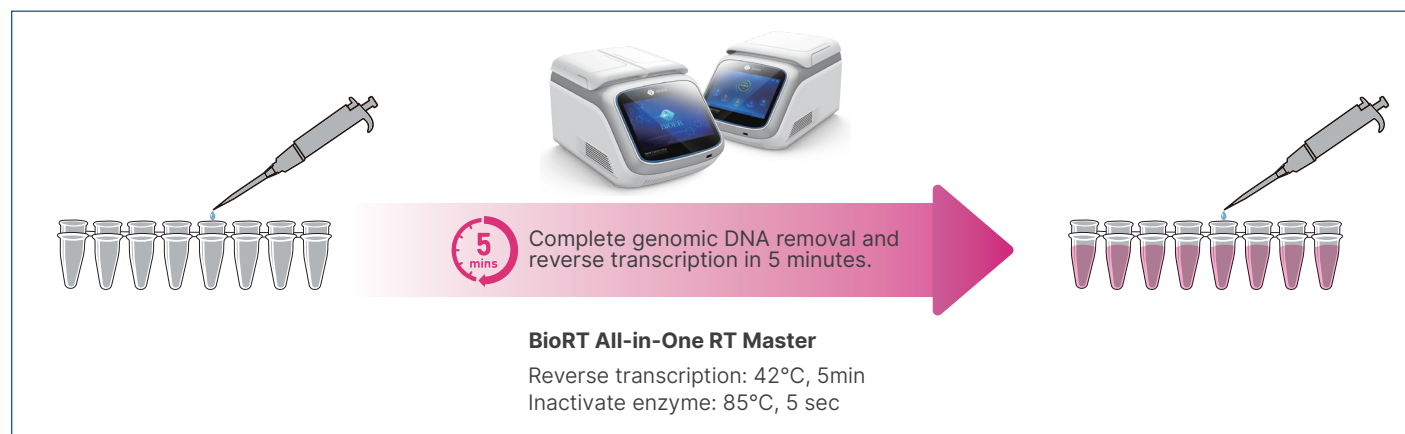
Product Features

- **All-in-One Convenience:** Single-tube supermix with all components included, requiring just one pipetting step and enhanced reaction efficiency.
- **Effective Genomic DNA Removal:** Complete over 90% genomic DNA removal and reverse transcription in as little as 5 minutes.
- **Unbiased qPCR Data:** Consistent efficiency, sensitivity, and reproducibility in qPCR results.
- **Higher RNA Input:** 4× All-in-One RT Mix enables greater RNA loading, improving detection sensitivity and ensuring reliable results from low-abundance samples.

Technical Specifications

Specification	Description
Sample Type	RNA (total RNA, mRNA, tRNA, rRNA)
Reverse Transcriptase	M-MLV
Total Input RNA Range	1pg-1μg
Final Fragment Length	<15kb
Compatible Platform	Thermal Cycler
Final Product Type	First-Strand cDNA
Time to Produce cDNA	5 min
Storage Condition	-20 ± 5°C

Product Performance



Application Cases

1.Comparison of Amplification Efficiency: Total RNA from Arabidopsis thaliana (1 µg – 100 pg) was reverse transcribed using this product and Competitor B, respectively. The resulting cDNA was amplified with BioEasy Universal qPCR Master Mix (SYBR Green) (Cat. No. BSB113), targeting the SAND gene.

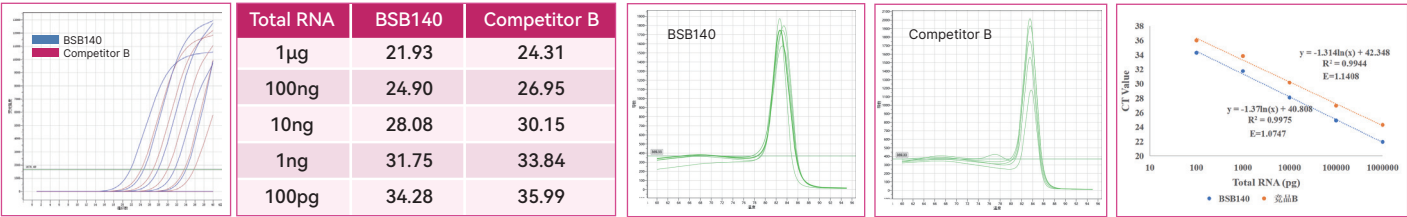


Figure 1. Comparison of SAND Amplification at Different RNA Concentrations

Results: Results show that systems using this product exhibited earlier Ct values and higher amplification efficiency compared with Competitor B, demonstrating superior performance even at low RNA input levels.

2. Human Total RNA (100 ng – 10 pg) was reverse transcribed using this product and Competitor B, respectively. The resulting cDNA was amplified with BioEasy Universal qPCR Master Mix (SYBR Green) (Cat. No. BSB113), targeting the B2M gene.

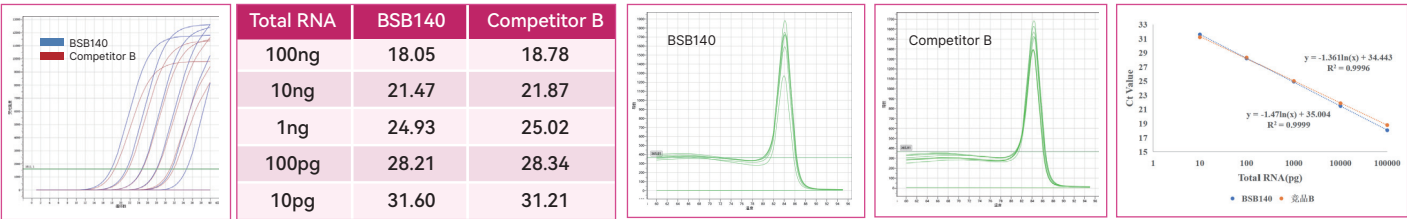


Figure 2. Comparison of B2M Amplification at Different RNA Concentrations

Results: Results show that systems using this product exhibited earlier Ct values and higher amplification efficiency compared with Competitor B, demonstrating superior sensitivity across a wide RNA input range.

3.Long-Fragment Reverse Transcription Capability: Total RNA (1 µg) was reverse transcribed using this product under extended reaction conditions (37 °C, 1 h). The resulting cDNA was amplified with BioReady LA Taq (Cat. No. BSA13) targeting fragments of different lengths.

Results: Results demonstrate that with prolonged reaction time, this reagent is capable of generating long cDNA fragments suitable for downstream PCR applications.

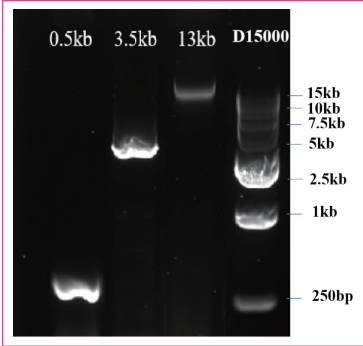


Figure 3. Long-Fragment Reverse Transcription Capability

Ordering Information

Product Name	Cat. No.	Package	Storage Condition
BioRT All-in-One RT Master Mix for qPCR (+gDNA Wiper)	BSB140M1	100 T	-25°C~-15°C



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TECHNOLOGY**

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