

UltraMarathonRT

Leveraging the Power of UltraMarathonRT® to Make RT-PCR Ultra-Sensitive & Precise

The UltraMarathonRT Two-Step RT-PCR Kit is ideal for applications requiring high sensitivity, particularly with low-abundance or structured RNA targets. This kit leverages the ultra-processivity and intrinsic helicase activity of UltraMarathonRT, enabling the transcription of complex, structured RNA templates without heat. Combined with a high-fidelity DNA Polymerase, it provides sensitive RNA-to-cDNA conversion followed by robust amplification.

Key Applications:

- Gene expression analysis
- Full-length isoform analysis
- Full-length virus genome analysis
- Molecular cloning
- Long or structured RNA analysis with low input

The UltraMarathonRT Two-Step RT-PCR kit shows strong performance with long transcripts.

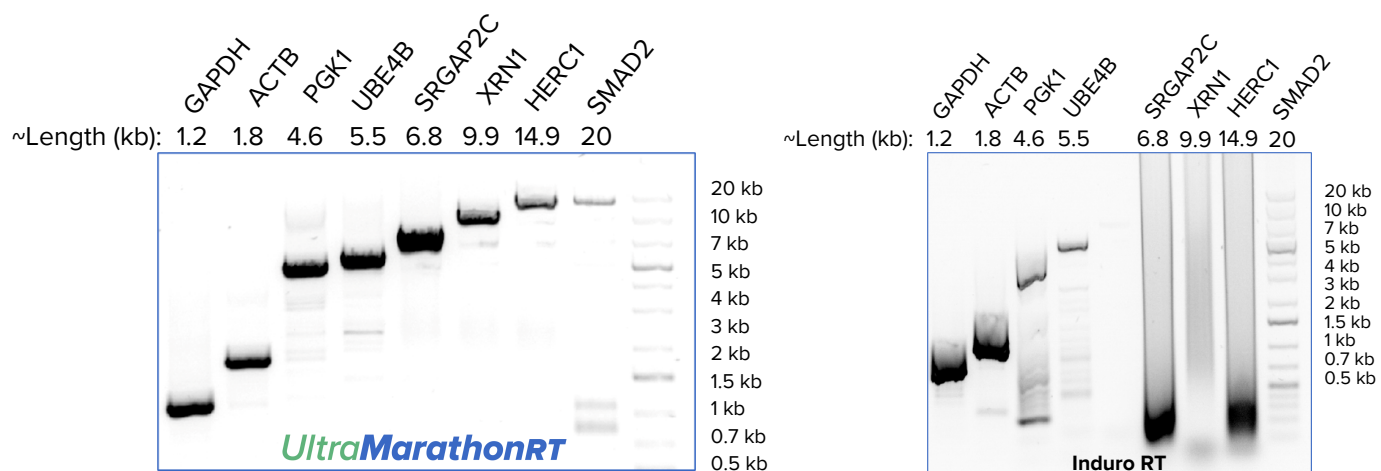


Figure 1. Amplification of transcripts from 1.2 kb to 14.9 kb using 100 ng Hela total RNA. The cDNAs generated by Induro RT were amplified by LongAmp Taq. Reverse transcription was performed using Oligo(dT)18 primer, but the user can analyze multiple genes from a single RT reaction using a single RT primer. The power of UltraMarathonRT combined with an optimized DNA Polymerase provides superior performance.

Features & Performance

- Detects and amplifies RNA down to 0.1 pg
- Suitable for RNA lengths from hundreds to tens of thousands of nucleotides
- Accommodates up to twenty RNA targets from a single reaction with Oligo(dT) primer

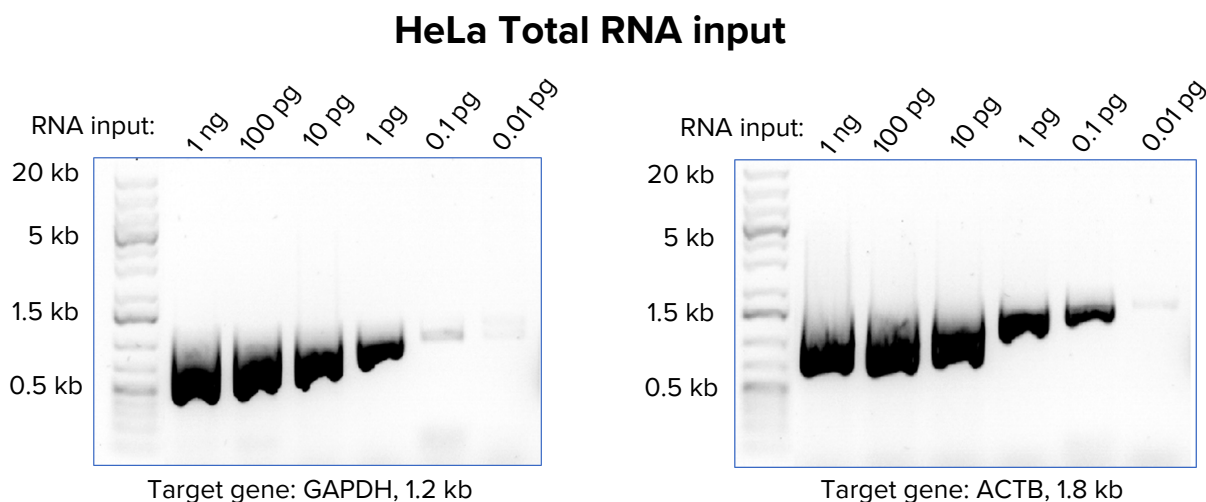


Figure 2. Sensitivity of uMRT two-step RT-PCR for RNA input as low as 0.1 pg

UltraMarathonRT Two-Step RT-PCR Kit

The UltraMarathonRT Two-Step RT-PCR Kit offers high-sensitivity RNA-to-cDNA conversion and amplification, suitable for a wide range of RNA lengths, structures, and GC contents. It requires as little as 0.1 pg of RNA input for RNAs over 10 kb, making it ideal for researchers working with long, complex RNA and needing precise, high-quality results. The kit includes all necessary reagents.

Kit Components:

- UltraMarathonRT
- 2x RT Reaction Buffer
- High Boost
- Nuclease-free Water
- dNTP mix (10 mM each)
- 2x PCR Master Mix
- Random primers (15mer) (10 μ M)
- Oligo(dT)18 Primer (5 μ M)



Catalog# R1005S (20 rxns), R1005M (50 rxns), R1005L (250 rxns)

For purchase orders please contact us at sales@rnaconnect.com.

