

Maxime™ RT PreMix Kit

QUICK GUIDE

Oligo (dT)₁₅ Primer : 25081
Random Primer : 25082

1. KIT DESCRIPTION

iNtRON's Maxime™ RT PreMix Kit is an optimized, ready-to-use reverse transcription system containing all essential components required for cDNA synthesis tube for a 1-reaction scale. This system provides a simple and convenient protocol by eliminating the need for a separate RNA denaturation step. Maxime™ RT PreMix Kit is available in two formats, Oligo (dT)₁₅ Primer and Random Primer for different applications. The synthesized cDNA can be directly used as a template for subsequent PCR amplification, including with the Maxime™ PCR PreMix Kit. Every manufacturing lot undergoes rigorous Quality Control (QC) to guarantee exceptional batch-to-batch consistency and high amplification performance.

2. CHARACTERISTICS

- All-in-One System : Contains RTase, RNase inhibitor, dNTP mixture and primers for cDNA synthesis in a single pre-aliquoted tube for maximum convenience and reproducibility.
- Simple Two-Step Protocol : Enables cDNA synthesis with a simple two-step reaction, minimizing handling steps and saving time.
- Versatile Primer Options : Available with Oligo (dT)₁₅ Primer or Random Primer, allowing users to select the appropriate primer type according to their experimental purpose.

3. KIT CONTENTS AND STORAGE

Contents	25081	25082
Maxime™ RT PreMix (Oligo (dT) ₁₅ Primer)	12 Strips/pk (96 Tube)	-
Maxime™ RT PreMix (Random Primer)	-	12 Strips/pk (96 Tube)

- Storage Condition : Store strictly at -20°C immediately upon receipt.
- Shelf Life & Stability : Guaranteed to maintain stable performance through the indicated Expiration Date when stored and handled under recommended conditions.

4. CONSIDERATIONS BEFORE USE

- Research Use Only (RUO) : For research use only. Not for diagnostic or clinical procedures.
- Storage & Handling : Store strictly at -20°C. Avoid repeated freeze-thaw cycles.
- Contamination Control : Use clean gloves and filter pipette tips to prevent cross-contamination.
- PreMix Dissolution : Ensure complete pellet dissolution; briefly spin down if necessary prior to use.
- Template Integrity : Use high-purity RNA free of inhibitors (phenol, ethanol, EDTA, genomic contaminants).

5. PROTOCOLS

1) Prepare the reaction mixture by adding components into the pre-aliquoted PCR tube as follows :

-  - Template RNA : 1 ~ 2 µl (Recommended : 0.05~1 ug)
- Sterile Distilled Water (D.W.) : 18~19 µl (final vol : 20 µl)

 **NOTE :** Since the PreMix already contains enzyme and buffer components, adjust the volume of distilled water according to the template volumes.

2) Dissolve the pellet by pipetting.

-  **NOTE :** If the mixture lets stand at RT for 1-2min after adding water, the pellet is easily dissolved.

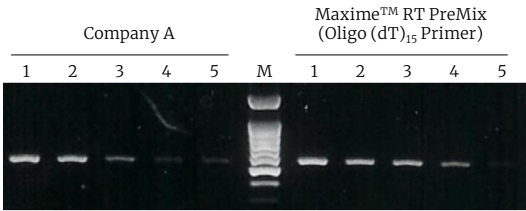
3) Perform PCR of samples.

[SUGGESTED CYCLING PARAMETERS]

Tube	Temp.	Time
cDNA synthesis	45°C	60min
RTase inactivation	60°C	5min

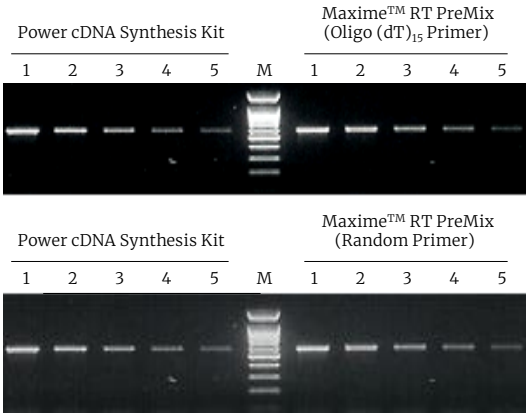
6. EXPERIMENTAL INFORMATION

1) Amplification of 570 bp DNA Fragment (GAPDH RT-PCR Test)
Total RNA was purified from mouse cells using easy-BLUE™ Total RNA Extraction Kit (Cat. No. 17061)), followed by cDNA synthesis using Maxime RT PreMix (Oligo (dT)₁₅ Primer) and Company A's RT PreMix Kit. After diluting the cDNA mixture as indicates, the PCR reaction was performed using Maxime PCR PreMix Kit.



Lane M, SiZer-100 DNA Marker; lane 1, 1/2 diluted cDNA; lane 2, 1/4 diluted cDNA; lane 3, 1/8 diluted cDNA; lane 4, 1/16 diluted cDNA; lane 5, 1/32 diluted cDNA

2) Comparsion with Manual method and Maxime™ RT PreMix using 570 bp DNA Fragment (GAPDH RT-PCR Test)
Total RNA was purified from mouse cells using easy-BLUE™ Total RNA Extraction Kit (Cat. No. 17061), followed by cDNA synthesis using Power cDNA Synthesis Kit (Cat. No. 25011) and Maxime™ RT PreMix Kit. The diluted cDNA was then amplified using Maxime PCR PreMix Kit.



Lane M, SiZer-100 DNA Marker; lane 1, 1/8 diluted cDNA; lane 2, 1/16 diluted cDNA; lane 3, 1/32 diluted cDNA; lane 4, 1/64 diluted cDNA; lane 5, 1/128 diluted cDNA