

Maxime PCR PreMix Kit (*i*-Taq)for 20 μ l rxn

Cat. No. 25025 (96 tubes); 25026 (500 tubes)

DESCRIPTION

iNtRON's *Maxime* PCR PreMix Kit has not only various kinds of PreMix Kit according to experience purpose, but also a 2X Master mix solution.

Maxime PCR PreMix Kit (*i*-Taq) is the product what is mixed every *i*-Taq™ DNA Polymerase, dNTP mixture, reaction buffer, and so on in one tube for 1 rxn PCR. This is the product that can get the best result with the most convenience system. The first reason is that it has every components for PCR, so we can do PCR just add a template DNA, primer set, and D.W.. The second reason is that it has Gel loading buffer to do electrophoresis, so we can do gel loading without any treatment. In addition, each batches are checked by a thorough Q.C., so its reappearance is high. It is suitable for various sample's experience by fast and simple using method.

STORAGE

Store at -20°C; under this condition, it is stable for at least a year.

CHARACTERISTICS

- High efficiency of the amplification
- Ready to use: only template and primers are needed
- Stable for over 1 year at -20°C
- Time-saving and cost-effective

CONTENTS

- *Maxime* PCR PreMix (*i*-Taq; for 20 μ l rxn) 96 (500) tubes.

Component in 20 μ l reaction	
<i>i</i> -Taq™ DNA Polymerase(5U/ μ l)	2.5U
dNTPs	2.5mM each
Reaction Buffer(10x)	1x
Gel Loading buffer	1x

SUGGESTED CYCLING PARAMETERS

PCR cycle	Temp.	PCR product size		
		100-500bp	500-1000bp	1Kb-5Kb
Initial denaturation	94 °C	2min	2min	2min
30-40 Cycles	Denaturation	94 °C	20sec	20sec
	Annealing	50-65 °C	10sec	10sec
	Extension	65-72 °C	20-30sec	40-50sec
Final extension	72 °C	Optional. Normally, 2-5min		

EXPERIMENTAL INFORMATION

- Comparison with *i*-Taq™ DNA Polymerase and *i*-Master mix PCR PreMix

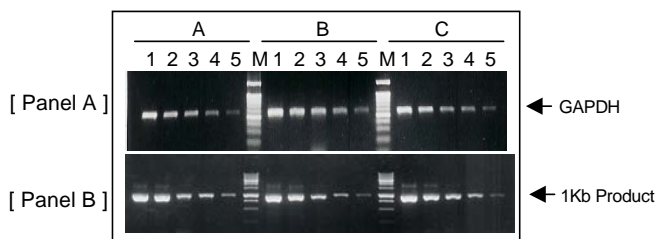


Fig.1. [Panel A] RT-PCR amplification at the indicating cDNA diluted mixtures. Total RNA was purified from mouse cells using easy-BLUE™ Total RNA Extraction Kit (Cat. No. 17061). And then, the first strand of cDNA was synthesized using Power cDNA Synthesis Kit (Cat. No. 25011). After diluting the cDNA mixture as indicates, the RT-PCR reaction was performed with *i*-Taq™ DNA Polymerase, *i*-Master mix PCR Kit and *Maxime* PCR PreMix (*i*-Taq).

A, *i*-Master mix PCR Kit; **B,** *i*-Taq™ DNA Polymerase; **C,** *Maxime* PCR PreMix (*i*-Taq)
Lane M, 100bp Ladder DNA Marker; lane 1, undiluted cDNA; lane 2, 1/2 diluted cDNA; lane 3, 1/4 diluted cDNA; lane 4, 1/8 diluted cDNA; lane 5, 1/16 diluted cDNA

[Panel B] PCR amplification

Comparison with *i*-Taq™ DNA Polymerase, *i*-Master mix PCR PreMix Kit and *Maxime* PCR PreMix (*i*-Taq) by amplifying 1Kb DNA fragment from variable amounts of λ DNA Aliquots of 5 μ l in 20 μ l reaction are loaded on 1% agarose gel.

Lanes M, 1Kb ladder; lanes 1, 200 pg; lane 2, 20 pg; lane 3, 2 pg; lane 4, 200 fg; lane 5, 20 fg

PROTOCOL

1. Add template DNA and primers into *Maxime* PCR PreMix tubes (*i*-Taq).

Note 1 : Recommended volume of template and primer : 3 μ l-5 μ l
Appropriate amounts of DNA template samples

- cDNA : 0.5-10% of first RT reaction volume
- Plasmid DNA : 10pg-100ng
- Genomic DNA : 0.1-1ug for single copy

Note 2 : Appropriate amounts of primers

- Primer : 5-20pmol/ μ l each (sense and anti-sense)

2. Add distilled water into the tubes to a total volume of 20 μ l.

Example	Total 20 μ l reaction volume
PCR reaction mixture	Add
Template DNA	1 ~ 2 μ l
Primer (F : 10pmol/ μ l)	1 μ l
Primer (R : 10pmol/ μ l)	1 μ l
Distilled Water	16 ~ 17 μ l
Total reaction volume	20 μl

Note : This example serves as a guideline for PCR amplification. Optimal reaction conditions such as amount of template DNA and amount of primer, may vary and must be individually determined.

3. Dissolve the blue pellet by pipetting.

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

4. (Option) Add mineral oil.

Note : This step is unnecessary when using a thermal cycler that employs a top heating method(general methods).

5. Perform PCR of samples.

6. Load samples on agarose gel without adding a loading-dye buffer and perform electrophoresis.

Note : The PCR process is covered by patents issued and applicable in certain countries. iNtRON Biotechnology does not encourage or support the unauthorized or unlicensed use of the PCR process. Use of this product is recommended for persons that either have a license to perform PCR or are not required to obtain a license.

Note : This CYCLING PARAMETERS serves as a guideline for PCR amplification. optimal reaction conditions such as PCR cycles, annealing temperature, extension temperature and incubation times, may vary and must be individually determined.

- Comparison with different company kit

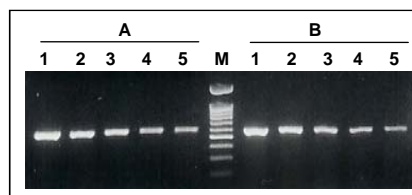


Fig.2. Comparison of *Maxime* PCR PreMix (*i*-Taq) and Company A's PreMix system by amplifying 570bp DNA fragment (GAPDH).

Total RNA was purified from SNU-1 using easy-BLUE™ Total RNA Extraction Kit (Cat. No. 17061). And then, the first strand of cDNA was synthesized using Power cDNA Synthesis Kit (Cat. No. 25011). After diluting the cDNA mixture as indicates, the RT-PCR reaction was performed.

A, Company A; **B,** iNtRON's *Maxime* PCR PreMix (*i*-Taq)

Lane M, 100bp Ladder DNA Marker; lane 1, undiluted cDNA; lane 2, 1/2 diluted cDNA; lane 3, 1/4 diluted cDNA; lane 4, 1/8 diluted cDNA; lane 5, 1/16 diluted cDNA