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O'in 1 **DNA Polymerase Premix**

Cat. No. FYT201-100P FYT202-100P

O'in 1 **DNA Polymerase Premix**

Volume: 5 ml/2 5 ml Storage: -20°C

Description

O' in 1 DNA Polymerase Premix is an economical and ready-to-use premix. containing YEAtag DNA Polymerase (# FYT001-500U), dNTP and all other reagents necessary for PCR, except DNA template and primers. It saves the time for preparing the master mix and reduces the risk of contamination from multiple pipetting steps.

Optimal PCR conditions, including template and primer concentrations and PCR program, should be determined experimentally by the investigator from case to case.

Component	FYT201-100P	FYT202-100P
O'in 1 DNA Polymerase Premix	1X	2X

1x O'in1 DNA Polymerase Premix Contents:

10 mM KCl. 2 mM MgSO4 • 7H2O, 20 mM Tris-HCl (pH 8.8).

0.1 % Triton X-100, 10 mM (NH₄)₂SO₄, 0.1 mg/ml BSA,

0.2 mM dNTP mix, 50 U/ml YEAtag DNA Polymerase, stabilizers

2x O'in1 DNA Polymerase Premix Contents:

Two folds concentration of all the above reagents

Procedure

A. Preparation of the PCR Master Mixes

1. Prepare a master mix according to Table 1 or 2.

Table 1. Reaction components when 1X O'in1 PCR Premix is used (FYT201-100P)



Component	Volume	Final conc.
1X O'in1 DNA Polymerase Premix	45 µl	1X
Forward Primer (10 µM)	1 µl	0.2 μΜ
Reverse Primer (10 µM)	1 µl	0.2 μΜ
Template DNA	0.5-3 µl	
ddH ₂ O	total to 50 µl	

Table 2, Reaction components when 2X O'in1 PCR Premix is used (FYT202-100P)

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	Component	Volume	Final conc.
	2X O'in1 DNA Polymerase Premix	25 µl	1X
)	Forward Primer (10 µM)	1 µl	0.2 μΜ
	Reverse Primer (10 µM)	1 µl	0.2 μΜ
	Template DNA	0.5-10 µl	
	ddH ₂ O	total to 50 µl	

2. Mix the master mixture thoroughly by pipetting up and down. Dispense the mixture into PCR tubes or plates.

B. Performing PCR

- 1. Program your instrument according to Figure 1.
- 2. Place the PCR tubes or PCR plates in the thermo cycler and start the cycling program.

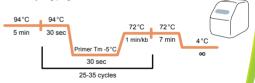


Figure 1. O'in 1 PCR cycling conditions

Unit Definition

One unit is defined as the amount of enzyme that will incorporate 10 nmol of dNTPs into acid-insoluble material in 30 minutes at 72 °C.

Quality Control

Nuclease activity is not detected after incubation 1µg lambda/HindIII DNA with 5 units O'in 1 DNA Polymerase in 50 µl reaction volume in supplied reaction buffer for 18 hours at 37°C.