

5X Taq PCR MasterMix

Cat. No.: B5XPM-2ML

COMPONENTS: 1 mL*2

0.5 U/ μ l Taq DNA polymerase, Reaction buffer, 7.5 mM MgCl₂, 1 mM of each dNTP (dATP, dCTP, dGTP and dTTP).

DESCRIPTION: Biomate 5X Taq PCR MasterMix is a ready-to-use 5X solution containing Taq DNA polymerase, dNTPs, MgCl₂ and reaction buffers at optimal concentrations for PCR. Simply add primers, template, and water to amplify the target sequence and other molecular biology applications. This formulation not only saves valuable time, but also reduces number of pipetting and reagent handling errors.

INSTRUCTIONS:

1. Gently vortex and briefly centrifuge Biomate 5X Taq PCR MasterMix after thawing.
2. Set up each reaction as follows:

<i>Component</i>	<i>50 μl reaction</i>	<i>Final Concentration</i>
<i>MasterMix (5X)</i>	10 μ l	1X
<i>Primer A</i>	Variable	0.1–1.0 μ M
<i>Primer B</i>	Variable	0.1–1.0 μ M
<i>Template DNA</i>	Variable	< 1.0 μ g
<i>Nuclease-free water</i>	to 50 μ l	

3. Gently mix the solution a few times and spin down.
4. Perform PCR using the recommended thermal cycling conditions outlined below:
(For maximum yield and specificity, temperatures and cycling times should be optimized for each new template target or primer pair)

<i>Step</i>	<i>Temperature</i>	<i>Time</i>
Initial Denaturation	95°C	30 seconds
30 Cycles	95°C	15-30 seconds
	45-68°C	15-60 seconds
	72°C	1 minute/kb
Final Extension	72°C	5 minutes
Hold	4-10°C	

CERTIFICATE OF ANALYSIS:

Endonuclease Assay

No conversion of covalently closed circular DNA to nicked form was detected after incubation of 1X Taq DNA Polymerase Mastermix with 1 µg of supercoiled plasmid DNA (pUC19) in for 4 hours at 37°C.

Exonuclease Assay

No degradation of DNA was observed after incubation of 1 µg of lambda DNA/HindIII fragments in 1X Taq DNA Polymerase Mastermix for 4 hours at 37°C.

Functional Assay

Good performance in PCR was tested for amplification of 1.8 kb gene.

STORAGE:

Store at 4°C ≥ a few weeks, -20°C ≥ 12 months, from date of receipt.

Avoid multiple freeze-thaw cycles

For Research Using Only.