

QKGEN® 2× PCR Master Mix(With Dye)

Product description

QKGEN® 2 × PCR Master Mix(With Dye) is a ready-to-use, premixed solution for conventional PCR, containing Taq DNA Polymerase, dNTPs, MgCl₂, and an optimized buffer system. Only primers and template need to be added to perform amplification, greatly simplifying experimental procedures.

The mix contains bromophenol blue dye, allowing direct loading of PCR products onto agarose gels for electrophoresis. The product includes a high-performance stabilizer, enabling stable storage at 4 °C for up to 3 months.

PCR products generated have 3'-dA overhangs, facilitating easy cloning into T-vectors.

Components

Components No.	Name	Q10102-1	Q10102-2	Q10102-3	Q10102-4
Q10102	QKGEN® 2× PCR Master Mix (With Dye)	1mL	5×1mL	50×1mL	100×1mL

Storage

The product should be stored at -25°C ~ -15°C for 2 years.

Instructions

1.Reaction System

Components	Volume(μL)	Final concentration
QKGEN® 2× PCR Master Mix	25	1×
Forward Primer(10 μmol/L)	2	0.4 μmol/L
Reverse Primer(10 μmol/L)	2	0.4 μmol/L
TempIate DNA	Appropriate amount	
ddH ₂ O	up to 50	

2.Amplification Protocol

Cycle step	Temp.	Time	Cycles
Pre-denaturation	94°C	5 min	1
Denaturation	94°C	30 sec	35
Annealing	50°C - 60°C ★	30 sec	
Extension	72°C	30-60 sec/kb ★	
Final extension	72°C	10 min	1

[Note]: Thoroughly mix the solution before use.

- Recommended template amounts: Genomic DNA: 50-200 ng ;Plasmid DNA: 0.1-10 ng.
- Mg²⁺ concentration: This product contains 3 mM MgCl₂, suitable for most PCR reactions.
- Annealing temperature(★): Refer to the theoretical T_m of the primers. The annealing temperature can be set 2-5 °C below the primer's theoretical T_m.
- Extention time (★): For molecular identification, 30 sec/kb is recommended. For gene cloning, 60 sec/kb is recommended to ensure maximum yield.

Notes

1. PCR products generated with this kit are not suitable for polyacrylamide gel electrophoresis.
2. For your safety and health, wear a lab coat and disposable gloves when handling this product!
3. This product is for research use ONLY!

Application Example

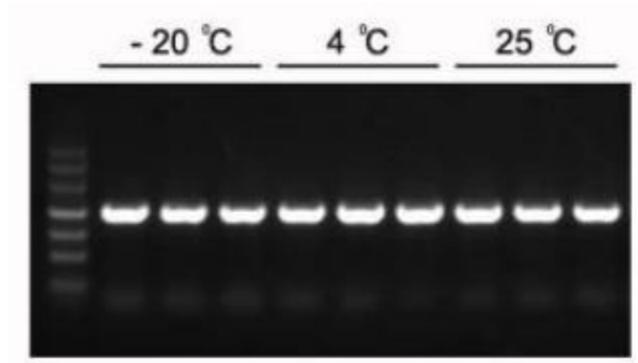


Figure 1. Amplification of a 1.2 kb fragment using QKGEN® 2× PCR Master Mix.
Effective amplification was achieved after storage at -20°C for 1 year, at 4°C for 3 months, or at 25°C for 1 month.
Template: Arabidopsisthaliana genomic DNA; Annealing temperature: 60°C; Extension time: 40 sec.