Ver.EN20230901

2×Hieff™ PCR Master Mix (With Dye)

Product description

2×Hieff™ PCR Master Mix contains Hieff™ Taq DNA Polymerase (Cat#10101), dNTPs, and other PCR-required components. The Master Mix is stable for 3 months at 4°C with our customized stabilizers. The pre-mix solution is optimized for conventional PCR and ready to use by adding DNA template and primers. The PCR products can be loaded directly for electrophoresis with pre-loaded bromophenol blue dye. The amplified products contain 3 '-dA protrusion and can be easily cloned into T vector. The 2×Hieff™ PCR Master Mix simplifies PCR procedure and reduces contamination.

Components

Name	10102ES03	10102ES08	10102ES50	10102ES60
2×Hieff™ PCR Master Mix(With Dye)	1 mL	5×1 mL	50×1 mL	100×1 mL

Specifications

Fidelity (vs. Taq)	1×
Hot Start	No
Overhang	3 '-A
Polymerase	Taq DNA Polymerase
Reaction Format	SuperMix or Master Mix
Reaction Speed	Standard
Product Type	PCR Master Mix (2x)

Storage

The 2×Hieff™ PCR Master Mix products should be stored at -25~-15°C for 2 years.

Instructions

1. Reaction System

Components	Size (μL)
Template DNA	suitable
Primer 1 (10 μmol/L)	2
Primer 2 (10 μmol/L)	2
2×Hieff™ PCR Master Mix	25
ddH_2O	to 50

Table 1 Reaction system (50 μL)

2. Amplification Protocol

Cycle steps	Temperature (°C)	Time	Cycles
Predenaturation	94	5 min	1
Denaturation	94	30 sec	35
Annealing	50-60	30 sec	
Extension	72	30-60 sec/kb	
Final extension	72	10 min	1

Table 2 Amplification protocol

[Note]:

1) Template usage: 50-200 ng genomic DNA; 0.1-10 ng plasmid DNA.

2) Mg^{2+} concentration: This product contains 3 mM of $MgCl_2$, suitable for most PCR reactions.

2) Annealing temperature: Please refer to the theoretical Tm value of primers. The annealing temperature can be set to 2-5°C lower than the theoretical value of the primer.

3) Extention time: For molecular identification, 30 sec/kb is recommended. For gene cloning, 60 sec/kb is recommended.

Notes

1. PCR products with 2×Hieff™ PCR Master Mix are not suitable for polyacrylamide gel electrophoresis.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. This product is for research use ONLY!

Application example

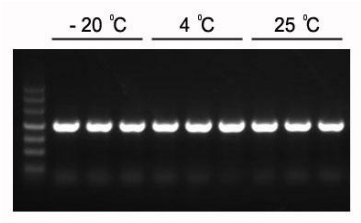

Figure 1 The expected 1.2 kb PCR products can be amplified with 2×Hieff™ PCR Master Mix.

The Master Mix was stored at -20°C for 1 year following another 3 months at 4°C and 1 month at 25°C. Template: Arabidopsis genome. Annealing temperature: 60°C. Extension time: 40 sec.