



Ver. HB221104

## 2× Hieff™ Ultra-Rapid HotStart PCR Master Mix (with Dye)

### Product Description

2× Hieff™ Ultra-Rapid HotStart PCR Master Mix (with Dye) is based on the modified Taq DNA Polymerase, adding strong extension factor, amplification enhancement factor and optimized buffer system, with super high amplification efficiency. The amplification speed of complex templates such as genome within 3kb reaches 1-3 sec/kb, and that of simple templates like plasmids within 5 kb reaches 1 sec/kb. This product can greatly save PCR reaction time. At the same time, mix contains dNTP and Mg<sup>2+</sup>, which can be amplified only by adding primers and templates, which also greatly simplifies the operation steps of the experiment. Furthermore, mix contains electrophoretic indicator dye, which can be directly electrophoresis after the reaction. The protective agent in this product makes the mix maintain stable activity after repeated freeze and thawing. The 3' -end band A of the PCR product can be easily cloned into the T vector.

### Components

Components No.	Name	10157ES03	10157ES08	10157ES50	10157ES60
10157	2×Hieff™ Ultra-Rapid HotStart PCR Master Mix (with Dye)	1 mL	5×1 mL	50×1mL	100×1mL

### Specifications

Product specification	Master Mix
Concentration	2×
Hot Start	Built-in Hot Start
Overhang	3' — A
Reaction speed	Rapid
Size (Final Product)	Up to 15kb
Conditions for transportation	Dry ice

### Shipping and Storage

The product is shipped with dry ice and can be stored at -25°C ~ -15°C for two years.

### Instructions

PCR reaction system

Components	Volume
ddH <sub>2</sub> O	To 50 μL
2×Hieff™ Ultra-Rapid HotStart PCR Master Mix (with Dye) <sup>a</sup>	25 μL
DNA template <sup>b</sup>	X
Primer-F (10 μmol/L)	2.5 μL
Primer-R (10 μmol/L)	2.5 μL



## Amplification reaction protocol

Cycle step	Temperature	Time	Cycles
Initial denaturation	94°C	3 min	1
Denaturation	94°C	10 sec	28-35
Annealing <sup>c</sup>	60°C	20 sec	
Extension <sup>d</sup>	72°C	1-10 sec/kb	
Final extension	72°C	5 min	1

**Notes**

1. Please wear the necessary PPE, such lab coat and gloves, to ensure your health and safety.
2. For research use only.