Ver. EN20230918

Hieff UCF.ME™ Hotstart Sensitive Taq DNA Polymerase (5 U/μL)

Product description

Hieff UCF.ME™ Hotstart Sensitive Taq DNA Polymerase, is effectively eliminated the DNA from *E. coli* and other microbial DNA contamination in the product after handling with the purification process specially developed by YEASEN. Hieff UCF.ME™ Hotstart Sensitive Taq DNA Polymerase is a hot start DNA polymerase with double blocking by double antibodies independently developed by the company. This product not only blocks the 5' → 3' polymerase activity of Taq DNA polymerase, but also blocks the 5' → 3' exonuclease activity. The antibody is inactivated after heating for 30 seconds at the pre denaturation temperature, DNA polymerase activity and exonuclease activity can be released. The double blocking characteristic can not only effectively prevent the nonspecific amplification caused by mismatch or primer dimer, but also effectively inhibit the decline of fluorescence signal caused by probe degradation. This enhances the stability of the in vitro detection reagent during transportation or when used at room temperature. In addition, compared with wild-type Taq DNA polymerase, this enzyme has the advantages of high amplification efficiency, strong specificity and high sensitivity, and can be well applied to amplification of the target nucleic acids with low abundance.

Specifications

Cat.No.	14314ES72 / 14314ES76 / 14314ES80 / 14314ES92 / 14314ES93 / 14314ES98
Size	250 U / 500 U / 1 KU / 10 KU / 25 KU / 100 KU

Components

Name	14314ES72	14314ES76	14314ES80	14314ES92	14314ES93	14314ES98
Hieff UCF.ME™ Hotstart Sensitive Taq DNA Polymerase (5 U/μL)	50 μL	100 μL	200 μL	2×1 mL	5 mL	20 mL

Storage

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

Instructions

1. Reaction Setup

Components	Volume (μL)	Final Concentration
10 × Hieff^{TM} PCR Buffer (Mg^{2+} Free)	2	1×
25 mM $MgCl_2$	1.2	1.5 mM
dNTP Mix (10 mM each) (Cat#10124)	0.4	0.2 mM
Primer/Probe mix	X	0.1-0.5 μM
Hieff UCF.ME^{TM} Hotstart Sensitive Taq DNA Polymerase (5 U/μL)	0.5	2.5 U
DNA template	X	0.1-100 ng
ddH_2O	up to 20	-

*According to the specific experimental application, the corresponding reaction buffer should be prepared by oneself, if necessary, you can buy 11373ES or 11374ES together. The amount of DNA and primer concentration in the above table are recommended concentrations, and the optimal concentration can be adjusted according to the specific experimental situation.

2. Thermal cycling protocol (2-Step cycling protocol)

Stage	Temperature	Time	Cycles
Pre-denaturation	95°C	5 min	1
Denaturation	95°C	15 sec	45
Annealing/Extension	60°C	30 sec	

*The reaction temperature is adjusted according to the Tm value of the designed primers. Different qPCR instruments need different fluorescence signal acquisition time, please set according to the shortest time limit.

Notes

1. This product is for scientific research purposes only.
2. For your safety and health, please wear lab coats and disposable gloves for operation.