Hieff Unicon™ Hotstart E-Taq DNA Polymerase, 20 U/μL

Product description

Hieff Unicon™ Hotstart E-Taq DNA Polymerase is a hot-start DNA polymerase utilizing a proprietary dual-antibody system developed by our company for dual inhibition. This product inhibits not only the 5′→3′ polymerase activity of Taq DNA polymerase, but also its 5′→3′ exonuclease activity. The blocking antibodies are completely inactivated after a 30-second incubation at the initial denaturation temperature, fully releasing both DNA polymerase and exonuclease activities. The dual-inhibition feature not only effectively prevents non-specific amplification caused by mismatches or primer dimers, but also suppresses probe degradation that leads to reduced fluorescence signals. This dual protection ensures greater stability of in vitro diagnostic reagents during transportation or when used at room temperature.

Specifications

Cat NO.	13824ES72 / 13824ES76 / 13824ES80 / 13824ES92 / 13824ES93
Size	250 U / 500 U / 1000 U / 10000 U / 25000 U

Components

Name	13824ES72	13824ES76	13824ES80	13824ES92	13824ES93
Hotstart E-Taq (20 U/μL)	12.5 μL	25 μL	50 μL	500 μL	1.25 mL

Storage

Shipped with dry ice and cold packs.This product should be stored at -20°C for 2 years.

Reaction System

Component	Volume (μL)	Final Concentration
2× Buffer[a]	25	1×
Primer/Probe mix[b]	X	0.1–0.5 μmol/L
Hotstart E-Taq (20 U/μL)	0.3	0.12 U/μL
Template DNA[c]	X	0.1–100 ng
Nuclease-free Water	up to 50	-

[Note]:a) The appropriate reaction Buffer must be provided by the user based on specific experimental applications.

b/c) The amounts of DNA and primer concentrations listed in the table are recommended values and can be optimized depending on specific experimental conditions.

Recommended Amplification Program (Two-step Protocol)

Cycling Step	Temperature	Time	Cycles
Initial Denaturation	95°C	5 min	1
Denaturation	95°C	15 sec	45
Annealing/Extension	60°C[a]	30 sec[b]	—

[Note]: a) Amplification temperature: Adjust according to the Tm values of the primers designed.

b) Fluorescence signal acquisition: Required acquisition times vary among different qPCR instruments; set according to the minimum time requirement of the instrument.