



Ver. HB230311

Lyophilized Bst Plus DNA Polymerase (60 U/μL, Glycerol-Free)

Product description

Bst Plus DNA Polymerase is derived from *Bacillus stearothermophilus* DNA Polymerase I. The 5'-3' exonuclease activity was removed by genetic engineering method, but the 5'-3' DNA polymerase activity and strong chain replacement activity were retained. Compared with wild-type Bst DNA Polymerase, the polymerase showed great improvement in amplification speed, yield, salt tolerance and thermal stability, and increased dUTP tolerance. It was very suitable for isothermal amplification reactions such as LAMP reaction. This product freeze-dried glycerin-free Bst Plus DNA Polymerase to solve the problem of glycerinase-free instability and could be used to make freeze-dried products.

Components

Components No.	Name	14405ES60 (12 KU)	14405ES97 (120 KU)	14405ES98 (1,200 KU)
14405-A	Lyophilized Bst Plus DNA Polymerase (60 U/μL, Glycerol-Free)	1 Vial (200 μL)	5 Vials (400 μL)	10 Vials (2 mL)
14405-B	Lyophilized monoenzyme redissolution solution	200 μL	2 mL	20 mL

Specifications

Polymerase	Bst DNA Polymerase
Heat Inactivation	Incubation at 85°C for 5 min.
Activity Definition	1 U refers to the amount of enzyme required to incorporate 10 nmol of dNTP into the acid-insoluble precipitate in 30 min at 65°C.
Application	Isothermal amplification reaction

Storage

The product should be stored at -25°C ~ -15°C for 1 years. Please avoid light.

Instructions

1. Recommended reaction system (Take LAMP(pH indicator method) as an example)

Components	Volume (μL)	Final Concentration
2.5× pH Sensitive Reaction Buffer	10	1×
1M MgSO ₄	0.2	
25 mM d (AUCG) TP ¹	1.4	
UDGase (Glycerol-free)	0.005	
Reverse Transcriptase (Glycerol-free)	0.075	
Lyophilized Bst Plus DNA Polymerase	2	



Murine RNase Inhibitor (Glycerol-free)	0.2	-
10 \times Primers ²	2.5	1 \times
Template	10 ng~1 μ g	-
ddH ₂ O	Up to 25	-

Note: 【1】 The recommended concentration of 25mmol/L d(A/U/G/C)TP mix was 1.2-1.4 mmol/L

【2】 10 \times Primers: 16 μ mol/L FIP/BIP, 2 μ mol/L F3/B3, 4 μ mol/L Loop F/B each. The ratio of primers also could be adjusted appropriately.

2. Reaction conditions

The reaction was incubated at 65°C for 30-60 min. Heat inactivation was carried at 85 °C for 5 min.

If UDG was used in the reaction system, the UDG digestion reaction should be proceeded (such as incubation at 25°C for 10min) .

Notes

1. For your safety and health, please wear lab coats and disposable gloves for operation.